BASES

BACKGROUND

Signal Process Control and Protection System (continued)

prevent the protection function actuation. These requirements are described in IEEE-279-1971 (Ref. 4). The actual number of channels required for each unit parameter is specified in Reference 1.

Two logic channels are required to ensure no single random failure of a logic channel will disable the RTS. The logic channels are designed such that testing required while ~~the reactor is at power~~ may be accomplished without causing a trip. INSERT BASES (1) Insert Q3.3.6-1 DC 3.3-005 DC3.3-Ed

Trip Setpoints and Allowable Values

two sided tolerance CA 3.3-014

The Trip Setpoints are the ~~nominal~~ values at which the bistables are set. Any bistable is considered to be properly adjusted when the "as left" value is within the band for CHANNEL CALIBRATION ~~accuracy~~ tolerance ~~(i.e., ± rack calibration + comparator setting accuracy)~~. INSERT B 3.3.1 BKG (B) DC ALL-005

The Trip Setpoints used in the bistables are based on the analytical limits stated in Reference 1. The selection of these Trip Setpoints is such that adequate protection is provided when all sensor and processing time delays are taken into account. To allow for calibration tolerances, instrumentation uncertainties, instrument drift, and severe environment errors for those RTS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 5), the Trip Setpoints and Allowable Values specified in Table 3.3.1-1 in the accompanying LCO are conservatively adjusted with respect to the analytical limits. A detailed description of the methodology used to calculate the Trip Setpoints, including their explicit uncertainties, is provided in the ~~"RTS/ESFAS Setpoint Methodology~~ ~~Study"~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagel 21 Version," May 1993 (Ref. 6). The actual nominal Trip Setpoint entered into the bistable is more conservative than that specified by the Allowable Value to account for changes in random measurement errors detectable by a COT. One example of such a change in measurement error is drift during the surveillance interval. If the measured setpoint does not exceed the Allowable Value, the bistable is considered OPERABLE. Q3.3.G-1

INSERT B 3.3.1 BKG (D) DC ALL-005

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

5. Source Range Neutron Flux (continued)

~~OPERABLE~~ to provide core protection against a rod withdrawal accident. If the ~~CRD~~ Rod Control System is not capable of rod withdrawal, the source range detectors are not required to trip the reactor. However, their monitoring Function must be OPERABLE to monitor core neutron levels and provide indication of reactivity changes that may occur as a result of events like an uncontrolled boron dilution. ~~These inputs are provided to the BDPS.~~ The requirements for the NIS source range detectors in MODE 6 are addressed in LCO 3.9.3, "Nuclear Instrumentation."

6. Overtemperature ΔT

The Overtemperature ΔT trip Function is provided to ensure that the design limit DNBR is met. This trip Function also limits the range over which the Overpower ΔT trip Function must provide protection and it protects against vessel exit bulk boiling and ensures that the exit quality is within the limits defined by the DNBR correlation. The inputs to the Overtemperature ΔT trip include ~~all~~ pressure, coolant temperature, axial power distribution, and reactor power as indicated by loop ΔT assuming full reactor coolant flow. Protection from violating the DNBR limit is assured for those transients that are slow with respect to delays from the core to the measurement system. ~~The Function monitors both variation in power and flow since a decrease in flow has the same effect on ΔT as a power increase.~~ The Overtemperature ΔT trip Function uses each loop's ΔT as a measure of reactor power and is compared with a setpoint that is automatically varied with the following parameters:

- reactor coolant average temperature - the Trip Setpoint is varied to correct for changes in coolant density and specific heat capacity with changes in coolant temperature;
- pressurizer pressure - the Trip Setpoint is varied to correct for changes in system pressure; and
- axial power distribution - f(ΔI), the Trip Setpoint is varied to account for imbalances in the axial power distribution as detected by the
- NIS upper and lower power range detectors. If axial peaks are greater than the design limit, as indicated by the difference between the upper and lower NIS power range detectors, the Trip Setpoint is reduced in accordance with Note 1 of Table 3.3.1-1.

DC ALL-002

- Dynamic compensation is included for system piping delays from the core to the temperature measurement system.

Redline

ΔT_0, as used in the overtemperature and overpower ΔT trips, represents the 100 percent RTP value of ΔT as measured by the

Q3.3.G-1

(continued)

BASES

plant for each loop. For the initial startup of a refueled core, ΔT_0 is initially assumed to be the same as the last measured ΔT value from the previous cycle until ΔT is measured again at full power. Accurate determination of the loop specific ΔT values should be made quarterly when performing the incore/excore recalibration at steady-state conditions (i.e., power distributions not affected by xenon or other transient conditions). The variation in indicated ΔT between loops is due to the variance in both real hot leg temperatures and hot leg temperature measurement biases. The real hot leg temperature variance between loops is primarily caused by asymmetrical flow in the upper plenum, and the difference in hot leg temperature measurement bases, primarily caused by differences in hot leg temperature streaming error between loops. The change in the indicated loop ΔTs with burn up is caused primarily by the change in the hot leg streaming biases as the radial power distribution changes.

Redline

DC ALL-002

Q3.3.G-1

The Overtemperature ΔT trip Function is calculated for each loop as described in Note 1 of Table 3.3.1-1. Trip occurs if Overtemperature ΔT is indicated in two loops. ~~At some units,~~ The pressure and temperature signals are used for other control functions~~.~~ ~~For those units,~~ thus the actuation logic must be able to withstand an input failure to the control system, which may then require the protection function actuation, and a single failure in the other channels providing the protection function actuation. Note that this Function also provides a signal to generate a turbine runback prior to reaching the Trip Setpoint. A turbine runback will reduce turbine power and reactor power. A reduction in power will normally alleviate the Overtemperature ΔT condition and may prevent a reactor trip.

The LCO requires all four channels of the Overtemperature ΔT trip Function to be OPERABLE ~~for two and four loop units (the LCO requires all three channels on the Overtemperature ΔT trip Function to be OPERABLE for three loop units)~~. Note that the Overtemperature ΔT Function receives input from channels shared with other RTS Functions. Failures that affect multiple Functions require entry into the Conditions applicable to all affected Functions.

In MODE 1 or 2, the Overtemperature ΔT trip must be OPERABLE to prevent DNB (2-out-of-4 coincidence). In MODE 3, 4, 5, or 6, this trip Function does not have to be OPERABLE because the reactor is not operating and there is insufficient heat production to be concerned about DNB.

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

7. Overpower ΔT

The Overpower ΔT trip Function ensures that protection is provided to ensure the integrity of the fuel (i.e., no fuel pellet melting and less than 1% cladding strain) under all possible overpower conditions for Condition I and II events (Ref. 12). This trip Function also limits the required range of the Overtemperature ΔT trip Function and provides a backup to the Power Range Neutron Flux–High Setpoint trip. The Overpower ΔT trip Function ensures that the allowable heat generation rate (kW/ft) of the fuel is not exceeded. The overpower ΔT trip also provides protection to mitigate the consequences of small steamline breaks, as reported in WCAP-9226, Ref. 16, and steamline breaks with coincident control rod withdrawal (Ref. 3). It uses the ΔT of each loop as a measure of reactor power with a setpoint that is automatically varied with the following parameters: DC 3.3-ED DC ALL-002

- reactor coolant average temperature – the Trip Setpoint is varied to correct for changes in coolant density and specific heat capacity with changes in coolant temperature; and

- rate of change of reactor coolant average temperature – including dynamic compensation for the delays between the core and the temperature measurement system.

DC ALL-002

Red-line this text

ΔT_0, as used in the overtemperature and overpower ΔT trips, represents the 100 percent RTP value of ΔT as measured by the plant for each loop. For the initial startup of a refueled core, ΔT_0 is initially assumed to be the same as the last measured ΔT value from the previous cycle until ΔT is measured again at full power. Accurate determination of the loop specific ΔT values should be made quarterly when performing the incore/excore recalibration at steady-state conditions (i.e., power distributions not affected by xenon or other transient conditions). The variation in indicated ΔT between loops is due to the variance in both real hot leg temperatures and hot leg temperature measurement biases. The real hot leg temperature variance between loops is primarily caused by asymmetrical flow in the upper plenum, and the difference in hot leg temperature measurement biases ins primarily caused by differences in hot leg temperature streaming error between loops. The change in the indicated loop ΔTs with burn up is caused primarily by the change in the hot leg streaming biases as the radial power distribution changes. Φ3.3.G-1

The Overpower ΔT trip Function is calculated for each loop as per Note 2 of Table 3.3.1-1. Trip occurs if Overpower ΔT is indicated in two loops. ~~At some units,~~ The temperature signals are used for other control functions; ~~At those units,~~ thus the actuation logic must be able to withstand an input failure to the control system, which may then require the protection function actuation and a single failure in the remaining channels providing the protection function actuation. Note that this Function also provides a signal to

(continued)

BASES

ACTIONS (continued)

F.1 and F.2

Condition F applies to the Intermediate Range Neutron Flux trip when THERMAL POWER is above the P-6 setpoint and below the P-10 setpoint and one channel is inoperable. Above the P-6 setpoint and below the P-10 setpoint, the NIS intermediate range detector performs the monitoring Functions. If THERMAL POWER is greater than the P-6 setpoint but less than the P-10 setpoint, 24 hours is allowed to reduce THERMAL POWER below the P-6 setpoint or increase to THERMAL POWER above the P-10 setpoint. The NIS Intermediate Range Neutron Flux channels must be OPERABLE when the power level is above the capability of the source range, P-6, and below the capability of the power range, P-10. If THERMAL POWER is greater than the P-10 setpoint, the NIS power range detectors perform the monitoring and protection functions and the intermediate range is not required. The Completion Times allow for a slow and controlled power adjustment above P-10 or below P-6 and take into account the redundant capability afforded by the redundant OPERABLE channel, the overlap of the power range detectors, and the low probability of its failure during this period. This action does not require the inoperable channel to be tripped because the Function uses one-out-of-two logic. Tripping one channel would trip the reactor. Thus, the Required Actions specified in this Condition are only applicable when channel failure does not result in reactor trip.

2 Q3.3G-1

G.1 and G.2

Condition G applies to two inoperable Intermediate Range Neutron Flux trip channels in MODE 2 when THERMAL POWER is above the P-6 setpoint and below the P-10 setpoint. Required Actions specified in this Condition are only applicable when channel failures do not result in reactor trip. Above the P-6 setpoint and below the P-10 setpoint, the NIS intermediate range detector performs the monitoring Functions. With no intermediate range channels OPERABLE, the Required Actions are to suspend operations involving positive reactivity additions immediately. This will preclude any power level increase since there are no OPERABLE Intermediate Range Neutron Flux channels. The operator must also reduce THERMAL POWER below the P-6 setpoint within two hours. Below P-6, the Source Range Neutron Flux channels will be able to monitor the core power

(continued)

BASES

ACTIONS

L.1, L.2, and L.3 (continued)

sufficient time to perform the calculations and determine that the SDM requirements are met. The SDM must also be verified once per 12 hours thereafter to ensure that the core reactivity has not changed. Required Action L.1 precludes any positive reactivity additions; therefore, core reactivity should not be increasing, and a 12 hour Frequency is adequate. The Completion Times of within 1 hour and once per 12 hours are based on operating experience in performing the Required Actions and the knowledge that unit conditions will change slowly.

M.1 and M.2

Condition M applies to the following reactor trip Functions:

- Pressurizer Pressure - Low;
- Pressurizer Water Level - High;
- Reactor Coolant Flow - Low; ~~(Two Loops)~~ Q3.3.6-1
- RCP Breaker Position ~~(Two Loops)~~;
- Undervoltage RCPs; and
- Underfrequency RCPs.

With one channel inoperable, the inoperable channel must be placed in the tripped condition within 6 hours. Placing the channel in the tripped condition results in a partial trip condition requiring only one additional channel to initiate a reactor trip above the P-7 setpoint (above P-8 for the Reactor Coolant Flow-Low reactor trip function) ~~, and below the P-8 setpoint.~~ These Functions do not have to be OPERABLE below the P-7 setpoint because there are no loss of flow trips below the P-7 setpoint. The 6 hours allowed to place the channel in the tripped condition is justified in Reference 7. An additional 6 hours is allowed to reduce THERMAL POWER to below P-7 if the inoperable channel cannot be restored to OPERABLE status or placed in trip within the specified Completion Time. The Reactor Coolant Flow - Low reactor trip function does not have to be OPERABLE below the P-8 setpoint; however, the Required Action must take the plant below the P-7 setpoint, if an inoperable channel is not tripped within 6 hours, due to the shared components between this function and the Reactor Coolant Flow - Low trip function.

Allowance of this time interval takes into consideration the redundant capability provided by the remaining redundant

(continued)

BASES

~~d~~ e. Auxiliary Feedwater – Safety Injection

An SI signal starts the motor driven ~~and turbine driven~~ AFW pumps. The AFW initiation functions are the same as the requirements for their SI function. Therefore, the requirements are not repeated in Table 3.3.2-1. Instead, Function 1, SI, is referenced for all initiating functions and requirements.

~~e~~ f. NOT USED ~~Auxiliary Feedwater – Loss of Offsite Power~~

~~A loss of offsite power to the service buses will be accompanied by a loss of reactor coolant pumping power and the subsequent need for some method of decay heat removal. The loss of offsite power is detected by a voltage drop on each service 12 KV bus. Loss of power to either service bus will start the turbine driven AFW pumps to ensure that at least one SG contains enough water to serve as the heat sink for~~ Q3.3.G-1

(continued)

BASES

ACTIONS

D.1, D.2.1, and D.2.2 (continued)

- ~~Containment Pressure - High 2~~ ~~High - High~~ Q 3.3-66
- Steam Line Isolation - Steam Line Pressure - Negative Rate - High; DC ALL-002
- Steam Line Pressure - Low;
- ~~High Steam Flow Coincident With Safety Injection Coincident With T_{avg} - Low Low;~~
- ~~High-High Steam Flow Coincident With Safety Injection;~~
- ~~High Steam Flow in Two Steam Lines Coincident With T_{avg} - Low Low;~~ (Add strike out) DC ALL-002
- Auxiliary Feedwater - SG Water level - Low Low ~~(two, three, and four loop units)~~; ~~and~~
- ~~SG Water level - High High (P-14) (two, three, and four loop units).~~

If one channel is inoperable, 6 hours are allowed to restore the channel to OPERABLE status or to place it in the tripped condition. Generally this Condition applies to functions that operate on two-out-of-three logic (excluding pressurizer pressure - low ~~and containment pressure high - high~~) which is two-out-of-four due to its control input function. Q 3.3-66 Therefore, failure of one channel places the Function in a two-out-of-two configuration. ~~One~~ The inoperable channel must be tripped to place the Function in a one-out-of-~~three~~two configuration that satisfies redundancy requirements. Insert Bases (3) DC 3.3-005

Failure to restore the inoperable channel to OPERABLE status or place it in the tripped condition within 6 hours requires the unit be placed in MODE 3 within the following 6 hours and MODE 4 within the next 6 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. In MODE 4, these Functions are no longer required OPERABLE.

The Required Actions are modified by a Note that allows the inoperable channel or one additional channel to be bypassed for up to ~~[4]~~ hours for surveillance testing of other channels. The 6 hours allowed to restore the channel to OPERABLE status or to place the inoperable channel in the tripped condition, and the 4 hours allowed for testing, are justified in Reference 8. Q 3.3.6-1

remove redline

(continued)

BASES

ACTIONS A.1 (continued) Q3.3.G-1

The Completion Time(s) of the inoperable channel(s) of a Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

Condition A applies when one ~~or more Functions~~ have one required channel that is inoperable ~~but at least one OPERABLE remaining channel~~. Required Action A.1 requires restoring the inoperable channel to OPERABLE status within 30 days. The 30 day Completion Time is based on operating experience and takes into account the remaining OPERABLE channel (or in the case of a Function that has only one required channel, other non-Regulatory Guide 1.97 instrument channels to monitor the Function), the passive nature of the instrument (no critical automatic action is assumed to occur from these instruments), and the low probability of an event requiring PAM instrumentation during this interval. Q3.3-71

INSERT ACTION A.1 Q 3.3-71

B.1

Condition B applies when the Required Action and associated Completion Time for Condition A are not met. This Required Action specifies initiation of actions in Specification 5.6.8, which requires a written report to be submitted to the NRC immediately. This report discusses the results of the root cause evaluation of the inoperability and identifies proposed restorative actions. This action is appropriate in lieu of a shutdown requirement since alternative actions are identified before loss of functional capability, and given the likelihood of unit conditions that would require information provided by this instrumentation.

INSERT ACTION C.1 Q 3.3-71

C.1

Remove Strike Out

Condition C applies when one or more Functions have ~~two inoperable required~~ no OPERABLE channels ~~(i.e., two channels inoperable in the same Function)~~. Required Action C.1 requires restoring one channel in the Function(s) to OPERABLE status within 7 days. The Completion Time of 7 days is based on the relatively low probability of an event requiring PAM instrument operation and the availability of alternate means to obtain the required information. Continuous operation with ~~two~~ no required channels ~~inoperable~~ OPERABLE in a Function is not acceptable because the alternate indications may not fully meet all performance qualification requirements applied to the PAM instrumentation. Therefore, requiring restoration

(continued)

B 3.3 INSTRUMENTATION

B 3.3.4 Remote Shutdown System

BASES

BACKGROUND

The Remote Shutdown System provides the control room operator with sufficient instrumentation and controls to place and maintain the unit in a safe shutdown condition from a location other than the control room. This capability is necessary to protect against the possibility that the control room becomes inaccessible. A safe shutdown condition is defined as MODE 3. With the unit in MODE 3, the Auxiliary Feedwater (AFW) System and the steam generator (SG) safety valves ~~or the SG atmospheric dump valves (ADVs)~~ can be used to remove core decay heat and meet all safety requirements. The long term supply of water for the AFW System ~~and the ability to borate the Reactor Coolant System (RCS)~~ allows extended operation in MODE 3 until such time that either control is transferred back to the Control Room or a cooldown is initiated from outside the control room. Q3.3.6-1

remote redline

If the control room becomes inaccessible, the operators can establish control at the remote shutdown panel (hot shutdown panel), and place and maintain the unit in MODE 3. Not all controls and necessary transfer switches are located at the ~~remote~~ hot shutdown panel. Some controls and transfer switches will have to be operated locally at the switchgear, motor control panels, or other local stations. The unit automatically reaches MODE 3 following a unit shutdown and can be maintained safely in MODE 3 for an extended period of time.

following DC ALL-002

The OPERABILITY of the following remote shutdown control and instrumentation functions ensures there is sufficient information available on selected unit parameters to place and maintain the unit in MODE 3 should the control room become inaccessible.

INSERT A DC ALL-002

APPLICABLE SAFETY ANALYSES

Q 5.0

The Remote Shutdown ~~System is required to~~ ~~Instrumentation Functions and the hot shutdown panel controls~~ provides equipment at appropriate locations outside the control room with a capability to promptly shut down and maintain the unit in a safe condition in MODE 3. Q 3.3-94 DC ALL-002

Q 5.0

The criteria governing the design and specific system requirements of the Remote Shutdown ~~System~~ ~~Instrumentation Functions and controls~~ are located in 10 CFR 50, Appendix A, GDC 19 (Ref. 1). Q 3.3-94

(continued)

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-A GEN **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

Generic Administrative Changes

Comment: Provide one DOC for each LCO to justify CTS changes that involve reformatting or word differences without any change in meaning or operation of the plant.

FLOG RESPONSE: As discussed in the transmittal letter and the "Methodology For Mark-Up of Current TS" in the back of Enclosure 2, the CTS has been marked up to reflect the substance of NUREG-1431, Revision 1. In general, only technical changes have been identified. However, some non-technical changes have also been included when the changes cannot easily be determined to be non-technical by a reviewer, or if an explanation is required to demonstrate that the change is non-technical. DOC 1-63-A was created and added to the top of the page for each CTS Section 3.3 Specification. DOC 1-63-A states:

"All reformatting, renumbering, and editorial rewording is in accordance with the Westinghouse Standard Technical Specifications, NUREG-1431. During the development, certain wording preferences or English language conventions were adopted. As a result, the Technical Specifications (TS) should be more readily readable, and therefore understandable, by plant operators and other users. During the reformatting, renumbering, and rewording process, no technical changes (either actual or interpretational) to the TS were made unless they were identified and justified."

ATTACHED PAGES:

Encl. 2	3/4 3-1, 3/4 3-14, 3/4 3-36, 3/4 3-47, 3/4 3-50
Encl. 3A	14
Encl. 3B	14 of 31

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

01-63-A Q1-AGEN

3.3.1 As a minimum, the Reactor Trip System instrumentation channels and interlocks of Table 3.3-1 shall be OPERABLE ~~with RESPONSE TIMES as shown in Table 3.3-2.~~ 01-35-LG

APPLICABILITY: As shown in Table 3.3-1.

ACTION:* 01-01-A

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

4.3.1.1 Each Reactor Trip System instrumentation channel and interlock and the automatic trip logic shall be demonstrated OPERABLE by performance of the Reactor Trip System Instrumentation Surveillance Requirements specified in Table 4.3-1.

Q 3.3-55

4.3.1.2 The ~~required~~ REACTOR TRIP SYSTEM RESPONSE TIME of each Reactor trip function shall be ~~demonstrated~~ verified to be within its limit at least once per ~~18~~ 24 months on a STAGGERED TEST BASIS. ~~Each test shall include at least one train such that both trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific Reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1.~~ 01-02-LG 01-03-LS1

24

DC ALL-001

(new) * Separate Condition entry allowed for each function.

01-01-A

3/4.3.2 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

01-63-A
Q 1-A GEN
02-01-A

3.3.2 The Engineered Safety Features Actuation System (ESFAS) instrumentation channels and interlocks shown in Table 3.3-3 shall be OPERABLE with their Trip Setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4 ~~and with RESPONSE TIMES as shown in Table 3.3-5.~~ 01-35-LG

APPLICABILITY: As shown in Table 3.3-3.

ACTION: * 01-01-A

a. With an ESFAS Instrumentation Channel or Interlock Trip Setpoint less conservative than the value shown in the Trip Setpoint column but more conservative than the value shown in the Allowable Values column of Table 3.3-4, adjust the Setpoint consistent with the Trip Setpoint value. 02-04-LG

b. With an ESFAS Instrumentation Channel or Interlock Trip Setpoint less conservative than the value shown in the Allowable Values column of Table 3.3-4, declare the channel inoperable and apply the applicable ACTION statement requirements of Table 3.3-3 until the channel is restored to OPERABLE status with its Trip Setpoint adjusted consistent with the Trip Setpoint value. 02-04-LG

SURVEILLANCE REQUIREMENTS

4.3.2.1 Each ESFAS instrumentation channel and interlock and the automatic actuation logic and relays shall be ~~demonstrated~~verified OPERABLE by the performance of the Engineered Safety Feature Actuation System Instrumentation Surveillance Requirements specified in Table 4.3-2. 01-03-LS1

Q 3.3-55

4.3.2.2 The ~~required~~ e ENGINEERED SAFETY FEATURES RESPONSE TIME of each ESFAS function shall be ~~demonstrated~~ verified to be within the limit at least once per ~~18~~ 24 months on a STAGGERED TEST BASIS**. ~~Each test shall include at least one train such that both trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" column of Table 3.3-3.~~ 01-02-LG 01-03-LS1 02-40-A

24 48

DC ALL-001

DC 3.3-Ed

(new) * Separate ACTION entry is allowe~~d~~ for each Functional Unit. 01-01-A

(new) ** Not required to be performed for the turbine driven auxiliary feedwater pump until 24 hours after steam generator pressure ≥650 psig. 02-40-A

MASTER

 03-01-A

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING FOR PLANT OPERATIONS

LIMITING CONDITION FOR OPERATION

7-63-A
Q 1-AGED

3.3.3.1 The radiation monitoring instrumentation channels for plant operations shown in Table 3.3-6 shall be OPERABLE with their Alarm/Trip Setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-6.

ACTION: * 01-01-A

a. With a radiation monitoring channel Alarm/Trip Setpoint for plant operations exceeding the value shown in Table 3.3-6, ~~adjust the Setpoint to within the limit within 4 hours or~~ declare the channel inoperable. 03-02-M

b. With one or more radiation monitoring channels for plant operations inoperable, take the ACTION shown in Table 3.3-6.

c. The provisions of Specification 3.0.3 are not applicable for the Fuel Building Radioactivity instrumentation. 03-06-A

SURVEILLANCE REQUIREMENTS

4.3.3.1 Each radiation monitoring instrumentation channel for plant operations shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST for the MODES and at the frequencies shown in Table 4.3-3.

(New) * Separate condition entry is allowed for each function. 01-01-A

INSTRUMENTATION

REMOTE SHUTDOWN INSTRUMENTATION AND CONTROLS

LIMITING CONDITION FOR OPERATION

01-63-A
Q 1-A GEN

3.3.3.5 The remote shutdown monitoring instrumentation and control functions shown in Table 3.3-9 shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

a. With less than the minimum required Function(s) of Table 3.3-9 operable, restore the inoperable Function(s) to OPERABLE status within 30 days or be in MODE 3 within 6 hours and HOT SHUTDOWN within ~~the next~~ 12 hours. 07-05-A

b. The provisions of Specification 3.0.4 are not applicable.

c. Separate entry into Action a. is allowed for each Function in Table 3.3-9.

SURVEILLANCE REQUIREMENTS

4.3.3.5.1 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION at the frequencies shown in Table 4.3-6.

4.3.3.5.2 Verify each required control circuit and control transfer switch is capable of performing the intended function at least once every ~~18 months~~.

REFUELING INTERVAL

All changes unless noted otherwise via Q 8-11

Q 1-A.GEN
1-63-A

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.6 The accident monitoring instrumentation ~~channels~~ functions shown in Table 3.3-10 shall be OPERABLE. 08-01-A

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

for one or more Functions

a. With the number of OPERABLE accident monitoring instrumentation channels less than the Required Number of Channels ~~but at least one accident monitoring channel OPERABLE~~ shown in Table 3.3-10, restore the inoperable channel(s) to OPERABLE status within ~~7~~ 30 days or ~~be in at least HOT SHUTDOWN within the next 12 hours.~~ prepare and submit a Special Report ~~to~~ on the alternate method of monitoring the appropriate parameter(s), cause of the inoperability, and plans and schedule for restoring the channel to OPERABLE status. 08-11-LS30 DC 3.3-Ed

one or more Functions with two required channels inoperable

b. With ~~the number of no OPERABLE accident monitoring instrumentation channels for one or more instrument functions except the containment recirculation sump level-narrow range, the main steam line radiation monitor, the containment area radiation monitor-high range, and the plant vent radiation monitor-high range less than the Minimum Channels OPERABLE requirements~~ of Table 3.3-10, except for the Containment Hydrogen Concentration Monitor, restore at least one ~~the~~ inoperable channel~~(s)~~ to OPERABLE status within ~~48 hours~~ 7 days or ~~be in at least HOT SHUTDOWN within the next 12 hours.~~ enter the Action Required referenced in Table 3.3-10. 08-11-LS30 08-11-A DC 3.3-Ed

c. ~~With the number of OPERABLE channels for the containment recirculation sump level-narrow range less than the Minimum Channels OPERABLE requirement~~ As required by the Action Requirements of Table 3.3-10, ~~except for the Containment Hydrogen Concentration monitors, restore the inoperable channel to OPERABLE status within 30 days or~~ be in at least HOT STANDBY within 6 hours ~~or~~ and be in at least HOT SHUTDOWN within ~~the next~~ 12 hours. 08-11-LS30 08-11-A DC 3.3-Ed

d. ~~With the number of OPERABLE channels for the main steam line radiation monitor, or the containment area radiation monitor-high range or the plant vent radiation monitor-high range less than the Minimum Channels OPERABLE requirements~~ As required by the Action Requirements of Table 3.3-10, ~~initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours and either restore the inoperable channel(s) to OPERABLE status within 7 days or~~ prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days that ~~provides actions taken, identifies the~~ outlines the preplanned alternate method of monitoring the appropriate parameter(s), cause of the inoperability and plans and schedule for restoring the channels to OPERABLE status. 08-11-LS30 08-04-LS17 08-11-A 08-11-M

e. The provisions of Specification 3.0.4 are not applicable.

(New) Separate Condition entry is allowed for each function. 01-01-A

CHANGE NUMBER	NSHC	DESCRIPTION
01-57	LG	CTS Table 3.3-1 Functional Units [12.a and 12.b] are combined per Traveler TSTF-169. The Required Channels, ACTION Statement, and Surveillance Requirements are the same for both Functional Units. The only difference between the two is the APPLICABILITY which could lead to entry into ACTION Statement 6 for Functional Unit [12.a], followed by a power reduction below P-8 exiting the APPLICABILITY and required ACTIONs for that Functional Unit, and subsequent re-entry into ACTION Statement 6 for Functional Unit [12.b]. This would involve an improper cumulative AOT of 12 hours before tripping an inoperable channel, beyond that evaluated in WCAP-10271 and its Supplements. The relationships between these Functional Units and permissives P-7 and P-8 are moved to the ITS 3.3.1 Bases.
01-58	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-59	LS46	~~Not Used.~~ INSERT 1-59-LS59 Q 1-51
01-60		Not Used.
01-61	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-01	A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.
02-02	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-04	LG	The requirements stipulated in ACTIONS a and b are moved to ITS Table 3.3.2-1, with explicit direction contained in the ITS ACTIONS Bases.
02-05	M	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 2-05 Q 2-05 (3.3)
02-06	LS33	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-62	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-65	A	

INSERT 1-63-A

INSERT 1-64-A

INSERT 1-66-LS45

INSERT 1-67-M

INSERT 1-68-LS54

INSERT 1-69-M

Q 1-AGEN

Q 1-23

Q 3.3 J

Q 3.3-46

DC 3.3-004

DC 3.3-004

Insert for Q 1-A GEN

Enclosure 3A page 14
Insert 1-63-A

All reformatting, renumbering, and editorial rewording is in accordance with the Westinghouse Standard Technical Specifications, NUREG-1431. During the development, certain wording preferences or English language conventions were adopted. As a result, the Technical Specifications (TS) should be more readily readable, and therefore understandable, by plant operators and other users. During the reformatting, renumbering, and rewording process, no technical changes (either actual or interpretational) to the TS were made unless they were identified and justified.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-58 A	The proposed change would allow Reactor Trip System and ESFAS sensor response time testing to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements," or other similar methodologies. This change is consistent with traveler TSTF-111, which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing.	No, see CN 1-03-LS1.	Yes	No, see CN 1-03-LS1.	No, see CN 1-03-LS1.
01-59	~~Not Used.~~ INSERT 1-59-LS46(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 1-51
01-60	Not Used.	N/A	N/A	N/A	N/A
01-61 M	If the requirements of current CPSES ACTION Statement 6 are not met, LCO 3.0.3 would be entered. In accordance with the ISTS, this ACTION Statement is revised to state that, if the ACTION requirements are not met, the plant must be taken below the P-7 interlock setpoint within the next 6 hours.	No, see CN-01-19-LS8.	Yes	No, see CN-01-19-LS8.	No, see CN-01-19-LS8.
02-01 A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.	Yes	Yes	Yes	Yes
02-02 A	CTS ACTION b.1, Equation 2.2-1, and the values for Total Allowance (TA), Z, and Sensor Error (S) are deleted, consistent with NUREG-1431 Rev. 1.	No, not in CTS.	No, not in CTS.	Yes	Yes
02-03 LG	The Engineered Safety Features Actuation System Instrumentation Trip Setpoints are moved to a licensee controlled document.	No, retained in ITS.	Yes, moved to Bases.	Yes, moved to ITS 3.3.2 Bases.	Yes, moved to ITS 3.3.2 Bases.

INSERT 1-63-A(a)
INSERT 1-64-A(a)
INSERT 1-66-LS45(a)
INSERT 1-67-M(a)
INSERT 1-68-LS54(a)
INSERT 1-69-M(a)

Q 1-AGEN
Q 1-23
Q 3.3j
Q 3.3-46
DC 3.3-004
DC 3.3-004

[illegible]

Insert for Q 1-A GEN

Enclosure 3B page 14 of 31
Insert 1-63-A(a)

01-63-A	All reformatting, renumbering, and editorial rewording is in accordance with the Westinghouse Standard Technical Specifications, NUREG-1431.	Yes	Yes	Yes	Yes

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2-LS GEN **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

Generic LS DOCs

Comment: For each proposed less restrictive change discussion include a clear statement of the CTS requirement, the CTS reference, a statement of the proposed ITS requirement, and the proposed ITS reference. For an example of this problem, refer to the first paragraph of LS-17.

Based on 8/14/98 meeting comment responses will be addressed in individual LS NSHC.

FLOG RESPONSE: No specific response will be given to the comment; however, this RAI number will be used for tracking purposes where NSHCs in Enclosure 4 were revised outside of a specific comment (e.g., the response to Comment Number Q 8-04 addresses the NSHC cited in the comment). See attached revisions.

ATTACHED PAGES:

Encl. 3A	15
Encl. 4	LS8 (page 29), LS 11 (page 35), LS40 (page 60)

CHANGE NUMBER	NSHC	DESCRIPTION
02-07	LS11	[Note (a) is added to CTS Table 3.3-3 for the Steam Line Isolation Functional Units 4.a, 4.b, 4.c, 4.d, and 4.e to state that the LCO requirements are not applicable in MODES 2 and 3 when the MSIVs are closed and deactivated]. Note [(b)] is added to CTS Table [3.3-3] for the Feedwater Isolation and Turbine Trip Function [Functional Units 5.a, and 5.b] to state that the LCO requirements are not applicable when the [MFIVs, MFRVs or the associated bypass valves] are closed [and deactivated or isolated by a closed manual valve]. INSERT 2-07-LS11 Q2-LSGBD When these valves are closed [and deactivated or isolated by a closed manual valve], they are already performing their safety function. These changes are consistent with NUREG-1431. Q2-08
02-08	M	[This change revises ACTION 20 ~~and 35~~ in CTS Table 3.3-3 and adds new ACTION 20.2 and 35.2 which are applicable to Functional Units 1.c, 1.d, 1.~~e~~f, ~~4.c~~ 4.d, 4.e, 5.b, 6(~~c.1~~)a, ~~and~~ ~~6.d~~]. These ACTION Statements, written to reflect the APPLICABILITY of the affected channels and consistency with ITS 3.3.2 [Conditions D and I], are more restrictive, by one hour, than the current ACTION Statement[s] which invoke[ ] LCO 3.0.3 if the inoperable channel is not placed in trip within 6 hours. DC ALL-002 DC 3.3-Ed
02-09	LG	Separate ESFAS entries for the motor-driven and turbine-driven auxiliary feedwater pumps are no longer necessary, consistent with NUREG-1431. The only difference in the requirements (an SR 4.0.4 exception for response time testing of the turbine-driven auxiliary feedwater pump) has been addressed in the ITS by a Note in Surveillance Requirement 3.3.2.10. [The details of which actuation signal starts which pump is moved to the Bases for SI and RCP undervoltage].
02-10	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-11	A	The Functional Unit for Loss of Power [CTS 7.a, 7.b] is moved to improved TS 3.3.5.
02-12	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-13	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-14	M	This change modifies ACTION Statement [21] for permissive P-11 [ ] to provide specific shutdown requirements to exit APPLICABILITY in lieu of applying LCO 3.0.3. This change is more restrictive by one hour, consistent with NUREG-1431.

[illegible]

Insert for Q 2-LS GEN

Enclosure 3A page 15
Insert 2-07-LS11

; therefore, there is no need for the associated actuation instrumentation to be operable. The closure of the identified valves is sufficient to ensure the isolation function is complete

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

following

NSHC LS8
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

These — And 28 — ≤ ARC? — DC 3.3-002

This change reflects a revision to current ACTION Statement [6]. If the requirements of current ACTION Statement [6] are not met, LCO 3.0.3 would be entered. ~~This~~ ACTION Statement ~~is~~ revised to state that if the ACTION requirements are not met, THERMAL POWER must be reduced to below the P-7 interlock setpoint within the next 6 hours. ~~Most of~~ the Functional Units that impose ACTION Statement [6], (: Q2-LS GEN) Pressurizer Pressure - Low, Pressurizer Water Level - High, Reactor Coolant Flow - Low, Two Loops (above P-7 and below P-8), RCP Undervoltage, and RCP Underfrequency() are automatically blocked (DC ALL-002) below P-7 and an Applicability Note has been added accordingly. The Reactor Coolant Flow - Low (Single Loop) reactor trip function does not have to be OPERABLE below the P-8 setpoint; however, the Required Action must take the plant below the P-7 setpoint, if an inoperable channel is not tripped within 6 hours, due to the shared components between this function and the Reactor Coolant Flow - Low (Two Loops) trip function.

which exits the Applicability of — These functions — Q2-LS GEN

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   and 16 — DC 3.3-Ed

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the ACTION Statement associated with an inoperable channel in CTS Table 3.3-1 Functional Units [9, 11, 12.a, 12.b, ~~14, and~~ 15] by keeping the end point of the shutdown action above the CTS requirement if an inoperable channel isn't placed in trip within 6 hours. The new ACTION Statement would reduce power to less than P-7 (10% RTP) within the next 6 hours in this situation as compared to entry into LCO 3.0.3 (power ≤ 5% RTP) in the current TS. The proposed change in the ACTION Statement will not affect any of the analysis assumptions for any of the accidents previously evaluated. An LCO 3.0.3 shutdown to ≤ 5% RTP is not required to meet the initial conditions of any accident analysis crediting these trip functions. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS11
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

Q2-LSGEN

isolation actuation instrumentation is not required to be operable

[Note (a) is added to current TS Table 3.3-3 for the Steam Line Isolation Function to state that the ~~LCO requirements are not applicable~~ in MODES 2 and 3 when the MSIVs are closed and deactivated.] Note [(b)] is added to current TS Table [3.3-3] for the Feedwater Isolation and Turbine Trip Function to state that the LCO requirements are not applicable when the [MFIVs, MFRVs and the associated bypass valves] are closed [and deactivated [or isolated by a closed manual isolation valve]. When these valves are closed [and deactivated [or isolated by a closed manual isolation valve], ~~they are already performing their safety function~~ their isolation function is complete.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system isolation performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the Applicability associated with the [Steam Line Isolation and] Feedwater Isolation ESFAS functions. Those functions are accomplished when the associated valves are closed and deactivated [or isolated by a closed manual isolation valve], whether that closure is as a result of automatic isolation ~~circuitry~~ instrumentation or operator action. Operability requirements on actuation ~~circuitry~~ instrumentation are not applicable if the valves are closed [and deactivated [or isolated by a closed manual isolation valve]. Q2-LSGEN The proposed change will not affect any of the analysis assumptions for any of the accidents previously evaluated. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS40
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

The CTS require that the setpoints be verified during quarterly TADOTs for the Reactor Coolant Pump (RCP) Underfrqeuency [and RCP Undervoltage] functions. The setpoint is adequately confirmed during the ~~18~~ 24 month calibrations. INSERT LS-40 Q2-LS GEN DC ALL-005

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:

1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*

2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*

3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The setpoint for the RCP Underfrequency [and RCP Undervoltage functions are] selected such that the Allowable value is not expected to be exceeded during the 18 months between calibrations. This function is not an initiator for an accident previously analyzed but the function is used to provide a reactor trip signal to mitigate certain accidents. However, because the function is not expected to exceed its Allowable Value bases On the 18 month calibration, it is concluded that the proposed change would nto involve a significant increase in the consequences of any accident previously analyzed.

2. Does the change create the possibility of a new or different kind of accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change will not alter the normal method of plant operation. No new transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined

Insert for Q 2-LS GEN

Enclosure 4 page 60
Insert LS-40

Therefore, Table 4.3-1 is revised to add Note [(9)] to the TADOTs of Functional Unit[s 15 and 16] such that setpoint verification during the quarterly TADOT is not required. This is acceptable because operating experience has shown that these relay setpoints demonstrate such low drift that if the setpoints were verified only during the [24] month calibrations there would be no effect on system performance and the Allowable Values for these Functions in current TS Table 2.2-1 would not be challenged.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3-LS GEN **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

TSTF-135 changes

Comment: TSTF-135 was rejected except for the traveler changes identified by the following justifications: DOC 3 which deletes STS Condition V for two inoperable trains; DOC 4 which makes changes STS T3.3.1-1 Note (b); DOC 5 which deletes Source Range Flux for Applicabilities in T3.3.1-1 with Note (f); and DOC 7 which deletes Intermediate Range Flux for Applicabilities in T3.3.1-1 with Note (e). Revise the submittal to delete all other TSTF-135 proposed changes.

FLOG RESPONSE: This traveler was discussed during meetings with the NRC staff the week of August 10, 1998. The attached pages represent changes including revised DOC and JFDs that we believe are acceptable to NRC. These changes are marked with the change code "TR 3.3-006" since the majority of these markups were self-identified and pre-date the RAI. Markups are based on TSTF-135, Rev. 3.

ATTACHED PAGES:

Encl. 2	3/4 3-5 (single * table notation), 3/4 3-7 (ACTION 11), and 3/4 3-13a (new note(19))
Encl. 3A	10 and 13
Encl. 3B	3 of 31
Encl. 4	33 and 58
Encl. 5A	Traveler Status Sheet, 3.3-1, 3.3-2, 3.3-5, 3.3-6, 3.3-18, 3.3-20, 3.3-26
Encl. 5B	B 3.3-7, B 3.3-8, B 3.3-9, B 3.3-13, B 3.3-14, B 3.3-39, B 3.3-40, B 3.3-41, B 3.3-42, B 3.3-46, B 3.3-47, B 3.3-51, and B 3.3-53
Encl. 6A	8, 9, and 10
Encl. 6B	7, 14, 18, and 21

TABLE 3.3-1 (Continued)

TABLE NOTATIONS

* When the ~~Reactor Trip System breakers are in the closed position and the~~ Control Rod Drive System is capable of rod withdrawal or ~~all~~ rods are not fully inserted. one or more (TR 3.3-006) | 01-55-LS39

~~#The provisions of Specification 3.0.4 are not applicable.~~ | 01-05-A

##Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.

###Below the P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint. Q 1-53

~~(new) *** Not required to be performed until 12 hours after input from one Power range Neutron Flux channel to QPTR is inoperable and THERMAL POWER is > 75% RTP.~~ | ~~01-53-A~~

(new) (f) With the RTBs open or the Rod Control System incapable of withdrawal. In this condition, source range function does not provide reactor trip but does provide indication. | 01-47-A

(new) (j) Above the P-9 (Power Range Neutron Flux) Interlock. | 01-48-LS4

(new) (k) Including any reactor trip bypass breakers that are racked in and closed for bypassing an RTB. | 01-14-A

(new) (d) Above the P-6 (Intermediate Range Neutron Flux) Interlock. | 01-07-LS3

(new) (g) Above the P-7 (Low Power Reactor Trips Block) Interlock. | 01-19-LS8

ACTION STATEMENTS

ACTION 1 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement.~~ restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours. | 01-04-LG

ACTION 2 - With the number of OPERABLE channels one less than the ~~Total Number of~~ REQUIRED Channels. STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: | 01-43-A

Q 3.3j

a. The inoperable channel is placed in the tripped condition within 6 hours. | 01-66-LS45

b. ~~The Minimum Channels OPERABLE requirement is met; however,~~ the inoperable channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~ and set point adjustment, and | DC ALL-002 | 01-04-LG | 01-17-A

c. Either, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER ~~and the Power Range Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER~~ within ~~4~~ 12 hours; or, if the power range neutron flux input to the QUADRANT POWER TILT RATIO is inoperable, the QPTR is monitored per Specification 4.2.4.2 ~~when THERMAL POWER is greater than or equal to 50% of RATED THERMAL POWER~~. | 01-18-LS7 | ~~01-53-A~~ | 01-56-A LS47 | Q 1-53 | Q 1-56

(new) Otherwise be in MODE 3 within 12 hours. | 01-18-LS7

(new) ACTION 2.1 - With one Channel inoperable, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied (Note: The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels ~~per Specification 4.3.1.1~~ and setpoint adjustment): | 01-06-LS2 | ~~01-17-A~~ | Q 3.3-40

a. Place the inoperable channel in tripped condition within 6 hours, or

b. Be in MODE 3 within 12 hours.

Q 3.3j

Remove strikeout

TABLE 3.3-1 (Continued)
ACTION STATEMENTS (Continued)

~~ACTION 9 - With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within the next 6 hours.~~ or reduce Thermal Power to < P-7 in 12 hours. Note that the inoperable channel may be bypassed for up to 4 hours for surveillance testing. 01-49-LS18 Q 1-49

ACTION 10 - With the number of ~~channels~~trains OPERABLE one less than the ~~Minimum~~ ~~Total Number of~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable train to operable status within 1 hour, or be in at least HOT STANDBY within ~~6~~ 7 hours; however, one ~~channel~~train may be bypassed for up to 2 hours for maintenance or surveillance testing ~~per Specification 4.3.1.1~~ provided the other channel is OPERABLE. 01-04-LG 01-66-LS45 Q 3.3j 01-13-LS6 TR 3.3-006

initiate action to fully insert all rods AND

ACTION 11 - With the number of OPERABLE channels or trains one less than the ~~Minimum~~Required Channels or trains ~~OPERABLE requirement~~, restore the inoperable channel or train to OPERABLE status within 48 hours or ~~open the Reactor trip breakers~~ within the next hour ~~fully insert all rods and~~ place the Rod control System in a condition incapable of rod withdrawal. 01-04-LG 01-55-LS39

ACTION 12 - With one of the diverse trip features (Undervoltage or shunt trip attachment) inoperable, restore it to OPERABLE status within 48 hours or ~~declare the breaker inoperable and apply ACTION 10~~ be in at least HOT STANDBY within the next 6 hours. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status. 01-14-A

ACTION 13 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 01-43-A

DC 3.3 Ed ~~a. The Minimum Channels OPERABLE requirement is met, and~~ 01-04-LG

a ~~b.~~ The inoperable channel is placed in the tripped conditions within 6 hours; however, the inoperable channel may be bypassed for up to 72 hours for surveillance testing ~~per Specification 4.3.1.1~~ or for performing maintenance, OR 01-66-LS45 Q 3.3j 01-67-M Q 3.3-46

c. Be in MODE 3 in 12 hours.

ACTION 26 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable Channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~ provided the other channel is OPERABLE. 01-04-LG 01-66-LS45 Q 3.3j

ACTION 27 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected RCS Loop Delta-T channel(s), either: 01-43-A

a. The Trip Time Delay threshold power level for zero seconds time delay is adjusted to 0% RTP, or

b. With the number of OPERABLE channels one less than the ~~Total Number of~~Required Channels, the affected Steam Generator Water Level-Low-Low channels are placed in the tripped condition. 01-43-A

Remove Strike Out

~~ACTION 28 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:~~ ~~01-50-A~~ 01-19-LS8

~~a. The inoperable channel is placed in the trip condition within 6 hours, and~~

~~b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1.~~, or

c. Reduce Thermal Power to < P-7 within 12 hours. DC 3.3-003

TABLE 4.3-1 (Continued)

TABLE NOTATIONS

~~(14) - The TRIP ACTUATING DEVICE OPERATIONAL TEST shall independently verify the OPERABILITY of the undervoltage and shunt trip circuits for the Manual Reactor Trip Function. The test shall also verify the OPERABILITY of the Bypass Breaker trip circuit(s).~~ 01-32-LG

(15) - Test local manual shunt trip prior to placing breaker in service.

~~(16) - Test automatic undervoltage trip.~~ 01-32-LG

(19) - (new) The CHANNEL OPERATIONAL TEST shall be performed within 12 hours after reducing power below P-10 for the power range and intermediate range instrumentation and within 4 hours after reducing power below P-6 for the source range instrumentation, if not performed within the previous 92 days. With the Rod Control System capable of rod withdrawal, or ~~all~~ one or more rods not fully inserted, the COT is not required prior to entering MODE 3 from MODE 2 until 4 hours after entering MODE 3. 01-22-M 01-27-LS10 TR 3.3-006

(20) - Surveillance shall also include verification that permissives P-6 (new) and P-10 are in their required state for existing plant conditions. DC 3.3-Ed 01-22-M

(22) - (new) Includes verification of time constants. 01-23-A

CHANGE NUMBER	NSHC	DESCRIPTION
01-26	LG	This change moves the details concerning NIS detector calibration to the Bases for ITS SR 3.3.1.11, consistent with NUREG-1431. This information is more appropriately controlled outside of the TS while the calibration requirement itself and its Frequency are unchanged.
01-27	LS10	Surveillances on the Source Range Neutron Flux trip function are reorganized to reflect plant status in accordance with NUREG-1431. New Note [(19)] requires that the quarterly COT be performed within 4 hours after reducing power below the respective source range instrumentation Applicabilities, if not performed within the previous [92] days. Since the COT is valid for [92] days, there is no need to repeat it if one has been performed within the prior [quarter]. The 4 hour allowance permits a normal shutdown to proceed without a delay for testing in MODE 2 and for a short time in MODE 3 until ~~the Reactor Trip Breakers are opened and~~ all rods are fully inserted and the Rod Control System is rendered incapable of rod withdrawal, after which this trip function no longer provides protection. Since the CTS has no Specification 4.0.4 exception, this 4 hour allowance is less restrictive. TR 3.3-006
01-28	A	~~Note [8] is revised to require the P-6 and P-10 interlock verification to be performed during all source range COTs. These permissives are verified to be in their correct state prior to entry into MODES 3, 4, and 5 during shutdown and after leaving MODES 3, 4, and 5 during startup. These changes are consistent with NUREG-1431.~~ Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). DC 3.3-004
01-29	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-30	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-31	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-32	LG	[ ] [Note (10) of CTS Table 4.3-1 is deleted since it is redundant; every TADOT requires independent UVTA and STA verification per ITS SR 3.3.1.4, not just those TADOTs following maintenance or adjustment.] Notes [(14) and (16) applicable to the RTBs and the RTB bypass breakers] of CTS Table 4.3-1 are moved to the Bases for ITS SR 3.3.1.14. These changes are consistent with NUREG-1431.
01-33	TR1	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-34	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

CHANGE NUMBER	NSHC	DESCRIPTION
01-50	A	~~ACTION [28] of the CTS duplicates CTS ACTION [6] and is deleted.~~ Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). DC 3.3-003
01-51	LG	This change moves the description of the P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [20.e and 20.f]. The Required Channels column for P-7 lists "1 per train" since this is a more appropriate convention for a logic function. These changes are consistent with NUREG-1431. ~~[This change also deletes the surveillance requirements for P-7 per CN 3.3-54 in the ITS since the COTs and channel calibration apply to P-10 and P-13 not to the P-7 logic function.]~~ e Q1-51
01-52	LG	This change moves the specifics on how to verify permissive functions of ACTIONS [8] and [21] to the Bases, consistent with NUREG-1431. This information is more appropriately controlled outside of the TS while the underlying requirement to verify proper permissive operation is unchanged. DC 3.3-004
01-53	A e	~~CTS Table 3.3-1 ACTION Statement [2.c] is revised to be consistent with ITS SR 3.2.4.2, as discussed in CN 4-04-LS-12 in the 3/4.2 package.~~ Not used. Q 1-53
01-54	LS37	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-55	LS39	APPLICABILITY Note [*] and ACTION Statement [11] for Functional Units [1, 6.b, 20, and 21] of CTS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met. As currently worded, these ACTION Statements result in a feedwater isolation signal (FWIS) when in MODE 3 with a T_{avg} less than [554°F. FSAR Table 7.3-3 and FSAR Figure 7.2-1 (sht. 13) detail the FWIS generation on the coincidence of P-4 and low T_{avg}.] A more generic action, ~~which assures~~ requires that action be initiated to the rods are fully inserted and cannot be withdrawn, replaces the specific method of precluding rod withdrawal. The revised APPLICABILITY and ACTION Statements still assure rod withdrawal is precluded. This change does not involve any safety impact and is consistent with traveler TSTF-135. TR 3.3-006
01-56	~~A~~ e LS 47	~~The DCPP~~ CTS 3.3.1 ACTION 2.c requires that power be reduced to less than 75% or that SR 4.2.4.2 be performed whenever power is ≥ 50%. This power level requirement should be ≥ 75% since if power is decreased below 75% per the first part of Action 2.c, the required ACTION is complete and in addition, SR 4.2.4.2 is only required for power levels ≥ 75% with one power range detector inoperable. Q 1-56 DC ALL-002

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-09 M	This DCPP-specific change revises CTS ACTION 5 to require the suspension of positive reactivity additions. Reference to specification 3.1.1.2 is deleted since the ITS reference is only to 3.1.1.1 which is more conservative for MODE 5.	Yes	No	No	No
01-10 LS32	This Callaway-specific change redefines the Actions for the source range neutron flux channels in MODES 3, 4, and 5. The source range neutron flux channels are required to provide input to the Reactor Trip System to mitigate potential uncontrolled rod withdrawal events only when the Rod Control System is capable of rod withdrawal or ~~all~~ one or more rods are not fully inserted (see CN 1-55-LS-39). If one source range neutron flux channel is inoperable in MODES 3, 4, and 5 when rod motion is possible, ACTION Statement 5.a is entered. If the channel is not restored within 48 hours, the Applicability is exited by inserting all rods and precluding rod withdrawal. If both source range channels are inoperable when rod motion is possible, new ACTION Statement 4.1 is entered and the reactor trip breakers are immediately opened. The current Action Statement 5.a requirements regarding the suspension of positive reactivity changes and closure of dilution source valves are deleted since they are not related to the reactor trip function.	No initiating action to fully insert	No	No	Yes TR 3.3-006

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS10
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

Surveillances on the Source Range Neutron Flux trip function are reorganized to reflect plant status in accordance with NUREG-1431 Rev. 1. New Note [(19)] requires that the quarterly COT be performed within 4 hours after reducing power below the respective source range instrumentation Applicabilities, if not performed within the previous [92] days. Since the COT is valid for [92] days, there is no need to repeat it if one has been performed within the prior [quarter]. The 4 hour allowance permits a normal shutdown to proceed without a delay for testing in MODE 2 and for a short time in MODE 3 until ~~the Reactor Trip Breakers are opened and~~ this trip function no longer provides protection. Since the current TS has no Specification 4.0.4 exception, this 4 hour allowance is less restrictive. TR 3.3-006

INSERT LS-10

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> *1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> *2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> *3. Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. This change allows a 4 hour deferral of a Channel Operational Test after entering the Applicability of the source range trip. This will not affect the operability or functionality of the source range channels. Their calibration is still valid and daily channel checks are still performed. The probability that an accident would occur during the 4 hour extension allowed by the proposed change is extremely small. The proposed change will not affect any of the analysis assumptions for any of the accidents previously evaluated. No FSAR Chapter 15 accident analyses credit this reactor trip function. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Insert for Q 3-LS GEN

Enclosure 4 page 33
Insert LS-10

all rods are fully inserted and the Rod Control System is rendered incapable of rod withdrawal, after which

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS39
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

APPLICABILITY Note [*] and ACTION Statements [11] for Functional Units [1, 6.b, and 20] of current TS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met. As currently worded, these ACTION Statements result in a feedwater isolation signal (FWIS) when in MODE 3 with a T_{avg} less than [554°F. FSAR Table 7.3-13 and FSAR Figure 7.2-1 (sht. 13) detail the FWIS generation on the coincidence of P-4 and low T_{avg}.] A more generic action, which (requires that action be initiated to) assure~~s~~ the rods are fully inserted and cannot be withdrawn, (TR 3.3-006) replaces the specific method of precluding rod withdrawal. The revised Applicability and ACTION Statements still assure rod withdrawal is precluded. This change does not involve any safety impact and is consistent with Traveler TSTF-135. The proposed change allows more freedom in how rod withdrawal is precluded and is thus less restrictive. However, the intent of using physical plant characteristics to prevent rod withdrawal is not diminished. The specification now acknowledges that the Rod Control System can be effectively disabled by means other than opening the RTBs (e.g., by de-energizing all CRDMs, by opening the RTBs or de-energizing the motor generator (MG) sets. (Q 3.3-122) This proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The proposed change does not alter the requirement to preclude rod withdrawal using physical plant characteristics. The specification does not allow administrative control or other means which could be conceived as less stringent. The specification does allow for alternative means to opening the RTBs for precluding rod withdrawal. These means, if used, would be as effective as opening the RTBs, such as removing power to the Rod Control System. Therefore, there should be no increase in the probability or consequences of a previously evaluated accident.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Inadvertent rod withdrawal accidents have been previously evaluated. This change does not create the possibility of a new or different kind of accident.

INDUSTRY TRAVELERS APPLICABLE TO SECTION 3.3

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	NA	~~Not~~ NRC approved ~~as of traveler cut-off date.~~ changes Bases only TR 3.3-004
~~TSTF-36, Rev. 2~~	~~Incorporated~~	~~3.3-34~~	Q 3.3-34
TSTF-37, Rev. 1	Not Incorporated	NA	ITS 5.6.8 still addresses PAM reports. Sections after ITS 5.6.7 were not renumbered.
TSTF-51	Not Incorporated	NA	Requires plant-specific reanalysis to establish decay time dependence for fuel handling accident.
~~TSTF-91~~	~~Not Incorporated~~	~~NA~~	~~[Trip Setpoints and] Allowable Values for loss of voltage and degraded voltage will remain in the TS.~~ TR 3.3-005
TSTF-111, Rev. 4	Incorporated	NA	Q 1-03
TSTF-135, Rev. 1	Partially Incorporated 3.3-90 3.3-91 3.3-106	3.3-41, 3.3-44, 3.3-93, 3.3-95, 3.3-122 3.3-142	~~Traveler is too broad scope in nature; should have been separate travelers. Portions of the traveler that significantly clarify operability requirements have been incorporated.~~ TR 3.3-006
TSTF-161, Rev. 1	Incorporated	3.3-79	Approved by NRC Q 3.3-79
TSTF-168	Incorporated	3.3-43	Approved by NRC. Q 3.3-43
TSTF-169	Incorporated	3.3-42	Approved by NRC. TR 3.3-003
~~WOG-106~~ TSTF-242	Incorporated	3.3-49	Q 3.3-49
~~Proposed Traveler~~ TSTF-246	Incorporated	3.3-107	~~WOG Mini-group Action Item # 45~~ Q 3.3-107

3.3 INSTRUMENTATION

3.3.1 Reactor Trip System (RTS) Instrumentation

LCO 3.3.1 The RTS instrumentation for each Function in Table 3.3.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.1-1.

ACTIONS

-----------------------------NOTE-----------------------------
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one or more required channels or trains inoperable.	A.1 Enter the Condition referenced in Table 3.3.1-1 for the channel(s) or trains.	Immediately 3.3-142 TR 3.3-006
B. One Manual Reactor Trip channel inoperable.	B.1 Restore channel to OPERABLE status. OR B.2~~.1~~ Be in MODE 3. ~~AND~~ ~~B.2.2 Open reactor trip breakers (RTBs).~~	48 hours 54 hours 3.3-106 ~~55 hours~~

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
---NOTE--- While this LCO is not met for function 19, 20 or 21 {IN} ~~entry into MODE 5[1] from MODE 5~~ is not permitted. ~~This NOTE is an exception to the requirements of LCO 3.0.4.~~ ---	{, making the Rod Control System capable of rod withdrawal}	Q 3.3-135; 3.3-135
C. One channel or train inoperable.	C.1 Restore channel or train to OPERABLE status.	48 hours
	OR	TR 3.3-006
	C.2.1 Initiate action to ~~Open RTBs~~ fully insert all rods.	~~49~~ 48 hours; 3.3-122
	AND	
	C.2.2 Place the Rod Control System in a condition incapable of rod withdrawal.	49 hours; 3.3-122

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
G. ~~THERMAL POWER > P-6 and < P-10.~~ Two Intermediate Range Neutron Flux channels inoperable.	G.1 Suspend operations involving positive reactivity additions. AND G.2 Reduce THERMAL POWER to < P-6.	Immediately 3.3-95 2 hours
H. NOT USED ~~THERMAL POWER < P-6, one or two Intermediate Range Neutron Flux channels inoperable.~~	~~H.1 Restore channel(s) to OPERABLE status.~~	~~Prior to increasing THERMAL POWER to > P-6~~ 3.3-95
I. One Source Range Neutron Flux channel inoperable.	I.1 Suspend operations involving positive reactivity additions.	Immediately
J. Two Source Range Neutron Flux channels inoperable.	J.1 Open RTBs. reactor trip breakers	Immediately ED TR 3.3-006

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
K. One Source Range Neutron Flux channel inoperable.	K.1 Restore channel to OPERABLE status. OR Initiate action to K.2.1 ~~Open RTBs.~~ fully insert all rods. AND K.2.2 Place the Control Rod System in a condition incapable of rod withdrawal.	48 hours TR 3.3-006 48 ~~49~~ hours 3.3-122 49 hours 3.3-122

(continued)

Table 3.3.1-1 (page 1 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT ~~(a)~~
1. Manual Reactor Trip	1,2	2	B	SR 3.3.1.14	NA	NA
	3(b), 4(b), 5(b)	2	C	SR 3.3.1.14	NA	NA
2. Power Range Neutron Flux						B-PS
a. High	1,2	4	D	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.7 SR 3.3.1.11 ~~SR 3.3.1.16~~ 3.3-55	≤ ~~[111.2]~~ ~~111.1~~% RTP 110.2	≤ 109% RTP DC ALL-005 B 3.3-55
b. Low	1(c),2	4	E	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ ~~[27.2]~~ ~~27.1~~% RTP 26.2	≤ 25% RTP DC ALL-005 B
3. Power Range Neutron Flux Rate						B-PS DC ALL-005
a. High Positive Rate	1,2	4	E	SR 3.3.1.7 SR 3.3.1.11	≤ ~~[6.8]~~ ~~6.3~~ 5.6 % RTP with time constant ≥ 2 sec	≤ 5% RTP with time constant ≥ 2 sec
b. High Negative Rate	1,2	4	E	SR 3.3.1.7 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ ~~[6.8]~~ ~~6.3~~% RTP 5.6 with time constant ≥ 2 sec	≤ 5% RTP with time constant ≥ 2 sec DC ALL-005 B
4. Intermediate Range Neutron Flux	1(c), 2(d)	2	F,G	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11	≤ ~~[31]~~ ~~30.9~~% RTP 30.6	≤ 25% RTP DC ALL-005 B-PS
	~~2(e)~~	~~2~~	~~H~~	~~SR 3.3.1.1~~ ~~SR 3.3.1.8~~ ~~SR 3.3.1.11~~	~~≤ [31] % RTP~~	~~≤ 25% RTP~~ 3.3-95

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(b) With ~~Reactor Trip Breakers (RTBs) closed and~~ Rod Control System capable of rod withdrawal or ~~all~~ one or more rods not fully inserted. 3.3-122

TR 3.3-006

Table 3.3.1-1 (page 2 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT~~(a)~~ ED B
5. Source Range Neutron Flux	2(e)	2	I,J	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ 1.4 E5 cps	≤ 1.0 E5 cps
	3(b), 4(b), 5(b)	2	J,K	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ 1.4 E5 cps	≤ 1.0 E5 cps
	3(f), 4(f), 5(f)	1	L	SR 3.3.1.1 SR 3.3.1.11	N/A	3.3-55 Q 3.3-55 N/A
6. Overtemperature ΔT	1,2	4	E	SR 3.3.1.1 SR 3.3.1.3 SR 3.3.1.6 SR 3.3.1.7 SR 3.3.1.~~12~~ 10 ~~SR 3.3.1.16~~	Refer to Note 1 (Page 3.3-2~~1~~4)	Refer to Note 1 (Page 3.3-2~~1~~4) 3.3-101
7. Overpower ΔT	1,2	4	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.~~12~~ 10 ~~SR 3.3.1.16~~	Refer to Note 2 (Page 3.3-22~~5~~)	Refer to Note 2 (Page 3.3-~~22~~-5) 3.3-101

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

one or More TR 3.3-006

(b) With ~~RTBs closed and~~ Rod Control System capable of rod withdrawal or ~~all~~ rods not fully inserted. 3.3-122

(e) Below the P-6 (Intermediate Range Neutron Flux) interlocks.

(f) With the RTBs open or all rods fully inserted and incapable of withdrawal. In this condition, source range Function does not provide reactor trip but does provide ~~[input to the Boron Dilution Protection System (LCO 3.3.9), and]~~ indication. 3.3-11 B-PS

Table 3.3.1-1 (page ~~6~~8 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	E TRIP SETPOINT~~(a)~~
19. Reactor Trip Breakers(k) (RTBs)	1,2	2 trains	R	SR 3.3.1.4	NA	NA
	3(b), 4(b), 5(b)	2 trains	C	SR 3.3.1.4	NA	NA TR 3.3-006
20. Reactor Trip Breaker Undervoltage and Shunt Trip Mechanisms(k)	1,2	1 each per RTB	U	SR 3.3.1.4	NA	NA 3.3-124
	3(b), 4(b), 5(b)	1 each per RTB	C	SR 3.3.1.4	NA	NA
21. Automatic Trip Logic	1,2	2 trains	Q	SR 3.3.1.5	NA	NA
	3(b), 4(b), 5(b)	2 trains	C	SR 3.3.1.5	NA	NA 3.3-45
22. Seismic Trip	1,2	3 directions (x,y,z) in 3 locations	W	SR 3.3.1.12 SR 3.3.1.14 ~~SR 3.3.1.17~~ SR 3.3.1.5	≤ ~~0.40~~ g 0.43	≤ 0.35 g DC AU-005

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(b) With ~~RTBs closed and~~ Rod Control System capable of rod withdrawal or ~~all~~ one or More rods not fully inserted. TR 3.3-006 3.3-122

(k) Including any reactor trip bypass breakers that are racked in and closed for bypassing an RTB.

BASES

BACKGROUND

Reactor Trip Switchgear (continued)

the reactor trip or ESF, these diagrams also describe the various "permissive interlocks" that are associated with unit conditions. Each train has a built in testing device that can automatically test the decision logic matrix Functions ~~and the actuation devices~~ while the unit is at power. When any one train is taken out of service for testing, the other train is capable of providing unit monitoring and protection until the testing has been completed. The testing device is semiautomatic to minimize testing time.

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

The RTS functions to maintain the ~~SLs~~ applicable limits during all AOOs and mitigates the consequences of DBAs in all MODES in which the ~~RTBs are closed.~~ Rod Control System is capable of rod withdrawal or one or more rods are not fully inserted. TR 3.3-00_

Each of the analyzed accidents and transients can be detected by one or more RTS Functions. The accident analysis described in Reference 3 takes credit for most RTS trip Functions. RTS trip Functions not specifically credited in the accident analysis are qualitatively credited in the safety analysis and the NRC staff approved licensing basis for the unit. These RTS trip Functions may provide protection for conditions that do not require dynamic transient analysis to demonstrate Function performance. They may also serve as backups to RTS trip Functions that were credited in the accident analysis.

The LCO requires all instrumentation performing an RTS Function, listed in Table 3.3.1-1 in the accompanying LCO, to be OPERABLE. Failure of any instrument renders the affected channel(s) inoperable and reduces the reliability of the affected Functions.

The LCO generally requires OPERABILITY of four or three channels in each instrumentation Function, two channels of Manual Reactor Trip in each logic Function, and two trains in each Automatic Trip Logic Function. Generally four OPERABLE instrumentation channels in a two-out-of-four configuration are required when one RTS channel is also used as a control system input. In the case of the DFWCS, the MSS feature prevents control/protection interaction even though there are only three inputs and a 2-out-of-3 logic. This configuration accounts for the possibility of the shared channel failing in such a manner that it creates a transient that requires RTS action. In

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

this case, the RTS will still provide protection, even with random failure of one of the other three protection channels. Three Operable instrumentation channels in a two-out-of-three configuration are generally required when there is no potential for control system and protection system interaction that could simultaneously create a need for RTS trip and disable one RTS channel. The two-out-of-three and two-out-of-four configurations allow one channel to be tripped during maintenance or testing without causing a reactor trip. Specific exceptions to the above general philosophy exist and are discussed below. TR 3.3-006

Reactor Trip System Functions

The safety analyses and OPERABILITY requirements applicable to each RTS Function are discussed below:

1. Manual Reactor Trip

The Manual Reactor Trip ensures that the control room operator can initiate a reactor trip at any time by using either of two reactor trip switches in the control room. A Manual Reactor Trip accomplishes the same results as any one of the automatic trip Functions. It is used by the reactor operator to shut down the reactor whenever any parameter is rapidly trending toward its Trip Setpoint.

The LCO requires two Manual Reactor Trip channels to be OPERABLE. Each channel is controlled by a manual reactor trip switch. Each channel activates the reactor trip breaker in both trains. Two independent channels are required to be OPERABLE so that no single random failure will disable the Manual Reactor Trip Function.

ONE or More

In MODE 1 or 2, manual initiation of a reactor trip must be OPERABLE (1-out-of-2 coincidence). These are the MODES in which the shutdown rods and/or control rods are partially or fully withdrawn from the core. In MODE 3, 4, or 5, the manual initiation Function must also be OPERABLE if ~~the~~ shutdown rods or control rods are withdrawn or the ~~Control Rod Drive (CRD)~~ Rod Control System is capable of withdrawing the shutdown rods or the control rods. In this condition, inadvertent control rod withdrawal is. TR 3.3-006

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

1. Manual Reactor Trip (continued)

Rod Control

TR 3.3-006

possible. In MODE 3, 4, or 5, manual initiation of a reactor trip does not have to be OPERABLE if the ~~CRD~~ System is not capable of withdrawing the shutdown rods or control rods and if all rods are fully inserted. If the rods cannot be withdrawn from the core, or there is no need to be able to trip the reactor ~~because all of the rods are inserted~~. In MODE 6, neither the shutdown rods nor the control rods are permitted to be withdrawn and the CRDMs are disconnected from the control rods and shutdown rods. Therefore, the manual initiation Function is not required. and all of the rods are fully inserted

2. Power Range Neutron Flux

The NIS power range detectors are located external to the reactor vessel and measure neutrons leaking from the core. The NIS power range detectors provide input to the Rod Control System ~~and the Steam Generator (SG) Water Level Control System~~. Therefore, the actuation logic must be able to withstand an input failure to the control system, which may then require the protection function actuation, and a single failure in the other channels providing the protection function actuation. Note that this Function also provides a signal to prevent automatic and manual rod withdrawal prior to initiating a reactor trip. Limiting further rod withdrawal may terminate the transient and eliminate the need to trip the reactor.

a. Power Range Neutron Flux—High

The Power Range Neutron Flux—High trip Function ensures that protection is provided, from all power levels, against a positive reactivity excursion leading to ~~DNB during power operations. These can be caused by rod withdrawal or reductions in RCS temperature.~~ fuel damage. Reactivity excursions can be caused by rod withdrawal or inadvertent CVCS malfunction, or for example, by sudden changes in RCS coolant temperature such as a feedwater system malfunction (Ref. 12).

The LCO requires all four of the Power Range Neutron Flux—High channels to be OPERABLE (2-out-of-4 coincidence).

In MODE 1 or 2, when a positive reactivity excursion could occur, the Power Range Neutron Flux—High trip must be OPERABLE. This Function

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

4. Intermediate Range Neutron Flux (continued)

DC 3.3-ED

do not provide any input to control systems. Note that this Function also provides a signal to prevent automatic and manual rod withdrawal prior to initiating a reactor trip. Limiting further rod withdrawal may terminate the transient and eliminate the need to trip the reactor.

The LCO requires two channels of Intermediate Range Neutron Flux to be OPERABLE (1-out-of-2 coincidence). Two OPERABLE channels are sufficient to ensure no single random failure will disable this trip Function.

Because this trip Function is important only during startup, there is generally no need to disable channels for testing while the Function is required to be OPERABLE. Therefore, a third channel is unnecessary.

In MODE 1 below the P-10 setpoint, and in MODE 2 above the P-6 setpoint, when there is a potential for an uncontrolled RCCA bank rod withdrawal accident during reactor startup, the Intermediate Range Neutron Flux trip must be OPERABLE. Above the P-10 setpoint, the Power Range Neutron Flux-High Setpoint trip and the Power Range Neutron Flux-High Positive Rate trip provide core protection for a rod withdrawal accident. In MODE 3, 4, or 5, the Intermediate Range Neutron Flux trip does not have to be OPERABLE because the control rods must be fully inserted and only the shutdown rods may be withdrawn. The reactor cannot be started up in this condition. The core also has the required SDM to mitigate the consequences of a positive reactivity addition accident. In MODE 6, all rods are fully inserted and the core has a required increased SDM. Also, the NIS intermediate range detectors cannot detect neutron levels present in this MODE.

TR 3.3-006

2 below the P-6 setpoint, the Source Range Neutron Flux trip function provides core protection for reactivity accidents. In MODE

5. Source Range Neutron Flux

The LCO requirement for the Source Range Neutron Flux trip Function ensures that protection is provided against an uncontrolled RCCA bank rod withdrawal accident from a subcritical condition during startup. This trip Function provides redundant protection to

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

5. Source Range Neutron Flux (continued)

TR 3.3-006

the Power Range Neutron Flux — Low ~~Setpoint and Intermediate Range Neutron Flux trip Functions~~. In MODES 3, 4, and 5, administrative controls also prevent the uncontrolled withdrawal of rods. The NIS source range detectors are located external to the reactor vessel and measure neutrons leaking from the core. The NIS source range detectors do not provide any inputs to control systems. The source range trip is the only RTS automatic protection function required in MODES 2 below P-6, 3, 4, and 5 with the Rod Control System capable of rod withdrawal or one or more ~~all~~ rods not fully inserted. Therefore, the functional capability at the ~~specified~~ Trip Setpoint is assumed to be available. TR 3.3-006

The LCO requires two channels of Source Range Neutron Flux to be OPERABLE. Two OPERABLE channels are sufficient to ensure no single random failure will disable this trip Function. The LCO also requires one channel of the Source Range Neutron Flux to be OPERABLE in MODE 3, 4, or 5 with RTBs open or the control rods incapable of withdrawal. In this case, the source range Function is to provide control room indication ~~and input to the Boron Dilution Protection System (BDPS)~~. The outputs of the Function to RTS logic are not required OPERABLE in MODE 6 or when the RTBs are open or all rods are fully inserted and the Rod Control System is incapable of withdrawal.

The Source Range Neutron Flux Function provides protection for control rod withdrawal from subcritical, boron dilution and control rod ejection events. The Function also provides ~~visual~~ neutron flux indication in the control room.

In MODE 2 when below the P-6 setpoint during a reactor startup, the Source Range Neutron Flux trip must be OPERABLE (1-out-of-2 coincidence). Above the P-6 setpoint, the Intermediate Range Neutron Flux trip and the Power Range Neutron Flux — Low Setpoint trip will provide core protection for reactivity accidents. Above the P-6 setpoint, the NIS source range neutron flux trip may be manually blocked and the high voltage to the detectors may be de-energized. ~~detectors are de-energized and inoperable.~~ Below the P-6 setpoint, the source range neutron flux trip is automatically reinstated and the high voltage to the detectors is automatically energized. TR 3.3-006

In MODES 3, 4, and ~~or~~ 5 with the reactor shut down, but with the Rod Control System capable of rod withdrawal or one or more ~~all~~ rods not fully inserted, the Source Range Neutron Flux trip Function must also be OPERABLE (1-out-of-2 coincidence). ~~If the CRD System is capable of rod withdrawal, the Source Range Neutron Flux trip must be~~

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

19. Reactor Trip Breakers (continued)

These trip Functions must be OPERABLE in MODE 1 or 2 when the reactor is critical (1-out-of-2 coincidence). In MODE 3, 4, or 5, these RTS trip Functions must be OPERABLE when ~~the RTBs or associated bypass breakers are closed, and~~ the ~~CRD~~ Control Rod System is capable of rod withdrawal or all rods are not fully inserted.

one or more

TR 3.3-006

20. Reactor Trip Breaker Undervoltage and Shunt Trip Mechanisms

The LCO requires both the Undervoltage and Shunt Trip Mechanisms to be OPERABLE for each RTB that is in service. The trip mechanisms are not required to be OPERABLE for trip breakers that are open, racked out, incapable of supplying power to the ~~CRD~~Rod Control System, or declared inoperable under Function 19 above. OPERABILITY of both trip mechanisms on each breaker ensures that no single trip mechanism failure will prevent opening any breaker on a valid signal.

These trip Functions must be OPERABLE in MODE 1 or 2 when the reactor is critical (1-out-of-2 coincidence). In MODE 3, 4, or 5, these RTS trip Functions must be OPERABLE when ~~the RTBs and associated bypass breakers are closed, and~~ the ~~CRD~~ Rod Control System is capable of rod withdrawal or all rods are not fully inserted.

one or more

TR 3-3-006

21. Automatic Trip Logic

The LCO requirement for the RTBs (Functions 19 and 20) and Automatic Trip Logic (Function 21) ensures that means are provided to interrupt the power to allow the rods to fall into the reactor core. Each RTB is equipped with an undervoltage coil and a shunt trip coil to trip the breaker open when needed. Each RTB is equipped with a bypass breaker to allow testing of the trip breaker while the unit is at power. The reactor trip signals generated by the RTS Automatic Trip Logic cause the RTBs and associated bypass breakers to open and shut down the reactor.

The LCO requires two trains of RTS Automatic Trip Logic to be OPERABLE (1-out-of-2 coincidence). Having two OPERABLE channels ensures that random failure of a single logic channel will not prevent reactor trip.

(continued)

(B)

BASES

APPLICABLE SAFETY ANALYSES LCO, and APPLICABILITY

21. Automatic Trip Logic (continued)

These trip Functions must be OPERABLE in MODE 1 or 2 when the reactor is critical. In MODE 3, 4, or 5, these RTS trip Functions must be OPERABLE when ~~the RTBs and associated bypass breakers are closed, and~~ the ~~CRD~~ Control Rod System is capable of rod withdrawal or ~~all~~ one or more rods are not fully inserted.

TR 3.3-006

22. Seismic Trip

The seismic trip system operates to shut down reactor operations should ground accelerations exceed a preset level in any two of the three orthogonal directions monitored (one vertical, two horizontal).

Three triaxial sensors (accelerometers) are anchored to the containment base in three separate locations 120 degrees apart. Each senses acceleration in three mutually orthogonal directions. Output signals are generated when ground accelerations exceed the preset level. These signals are transmitted to the Trains A and B Solid State Protection System (SSPS). If two of the three sensors in any direction produce simultaneous outputs, the logic produces trains A and B reactor trip signals.

This trip function must be OPERABLE in MODE 1 or 2 when the reactor is critical and must be capable to shut down the reactor in the event of an earthquake. Three channels in these directions are required to be OPERABLE.

DC ALL-002

The RTS instrumentation satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii) ~~the NRC Policy Statement.~~

ACTIONS

A Note has been added to the ACTIONS to clarify the application of Completion Time rules. The Conditions of this Specification may be entered independently for each Function listed in Table 3.3.1-1.

In the event a channel's Trip Setpoint is found nonconservative with respect to the Allowable Value, or the transmitter, instrument loop, signal processing electronics, or bistable is found inoperable, then all affected Functions provided by that channel must be declared inoperable and the LCO Condition(s) entered for the protection Function(s) affected. When the Required Channels in Table 3.3.1-1 are specified (e.g., on a per steam line, per loop, per basis), then the Condition may be entered separately for each steam line, loop, SG, etc., as appropriate.

DC ALL-002

Insert 3.3.1 Actions

When the number of inoperable channels in a trip Function exceed those specified in one or other related Conditions associated with a trip Function, then the unit is outside the safety analysis. Therefore, LCO 3.0.3 must be immediately entered if applicable in the current MODE of operation.

~~Reviewer's Note: Certain LCO Completion Times are based on approved topical reports. In order for a licensee to use these times, the licensee must justify the Completion Times as required by the staff Safety Evaluation Report (SER) for the topical report.~~

(continued)

BASES

ACTIONS

A.1 ~~(continued)~~ DC 3.3-Ed

or trains TR 3.3-006

Condition A applies to all RTS protection Functions. Condition A addresses the situation where one or more required channels for one or more Functions are inoperable at the same time. The Required Action is to refer to Table 3.3.1-1 and to take the Required Actions for the protection functions affected. The Completion Times are those from the referenced Conditions and Required Actions.

B.1, B.2.1, and B.2.2

Condition B applies to the Manual Reactor Trip in MODE 1 or 2. This action addresses the train orientation of the SSPS for this Function. With one channel inoperable, the inoperable channel must be restored to OPERABLE status within 48 hours. In this Condition, the remaining OPERABLE channel is adequate to perform the safety function.

The Completion Time of 48 hours is reasonable considering that there are two automatic actuation trains and another manual initiation channel OPERABLE, and the low probability of an event occurring during this interval.

If the Manual Reactor Trip Function cannot be restored to OPERABLE status within the allowed 48 hour Completion Time, the unit must be brought to a MODE in which the requirement does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 additional hours (54 hours total time) ~~followed by opening the RTBs within 1 additional hour (55 hours total time)~~. The 6 additional hours to reach MODE 3 ~~and the 1 hour to open the RTBs~~ is ~~are~~ reasonable, based on operating experience, to ~~reach MODE 3 and open the RTBs~~ exit the applicability from full power operation in an orderly manner and without challenging unit systems. With ~~the RTBs open and~~ the unit in MODE 3, Condition C is entered if the Manual Reactor Trip Function has not been restored and the Rod Control System is capable of rod withdrawal ~~of all~~ or one or more rods are not fully inserted ~~this trip Function is no longer required to be OPERABLE.~~ TR 3.3-006

TR 3.3-006

C.1 ~~and C.2~~.1, and C.2.2

Condition C applies to the following reactor trip Functions in MODE 3, 4, or 5 with the ~~RTBs closed and the CRD~~ Rod Control System capable of rod withdrawal or ~~all~~ one or more rods not fully inserted: TR 3.3-006

(continued)

BASES

ACTIONS

C.1~~.~~ ~~and~~ C.2.1 and C.2.2 (continued)

action must be initiated within the same 48 hours to fully insert all rods

TR 3.3-006

- Manual Reactor Trip;
- RTBs;
- RTB Undervoltage and Shunt Trip Mechanisms; and
- Automatic Trip Logic.

for the latter

This action addresses the train orientation of the SSPS for these Functions. With one channel or train inoperable, the inoperable channel or train must be restored to OPERABLE status within 48 hours. If the affected Function(s) cannot be restored to OPERABLE status within the allowed 48 hour Completion Time, the unit must be placed in a MODE in which the requirement does not apply. To achieve this status, ~~the RTBs must be opened~~ ~~rods must be fully inserted~~ and the Rod Control System rendered incapable of rod ~~withdrawn~~ withdrawal must be within the next hour. The additional hour provides sufficient time to accomplish the action in an orderly manner. With the ~~RTBs open,~~ rods fully inserted and the Rod Control System rendered incapable of rod ~~withdrawn~~ withdrawal these Functions are no longer required. (e.g., by de-energizing all CRDMs, by opening the RTBs, or by de-energizing the motor generator (MG) sets)

TR 3.3-006

DC 3.3-Ed

The Completion Time is reasonable considering that in this Condition, the remaining OPERABLE train is adequate to perform the safety function, and given the low probability of an event occurring during this interval.

Q 3.3-122

Condition C is modified by a Note stating that while this LCO is not met for ~~the transition from~~ Making MODE 5 ~~to MODE 5 with~~ the Rod Control System capable of rod withdrawal ~~or all rods~~ not ~~fully inserted~~ is not permitted for Functions 19, 20, or 21. ~~This Note specifies an exception to LCO 3.0.4 for this MODE 5 transition and avoids placing the plant in a condition where control rods can be withdrawn while the reactor trip system is degraded.~~ This note is in addition to the requirements of LCO 3.0.4 which preclude the transition from either MODE 3 or MODE 4 to MODE 3 or MODE 4 with the Rod control System capable of rod withdrawal or all rods not fully inserted for Functions 19, 20, or 21 with one channel or train inoperable.

Q 3.3-135

D.1.1, D.1.2, D.2.1, D.2.2, and D.3

Condition D applies to the Power Range Neutron Flux—High Function.

The NIS power range detectors provide input to the ~~CRD~~Rod Control System ~~and the SG Water Level Control System~~ and, therefore, have a two-out-of-four trip logic. A known inoperable channel must be placed in the tripped condition. This results in a partial trip condition requiring only one-out-of-three logic for actuation. The 6 hours allowed to place the inoperable channel in the tripped condition is justified in WCAP-10271-P-A (Ref. 7).

(continued)

BASES

ACTIONS

G.1 and G.2 (continued)

level. The Completion Time of 2 hours will allow a slow and controlled power reduction to less than the P-6 setpoint and takes into account the low probability of occurrence of an event during this period that may require the protection afforded by the NIS Intermediate Range Neutron Flux trip.

H.1 - Not used

DC AU-002

~~Condition H applies to the Intermediate Range Neutron Flux trip when THERMAL POWER is below the P-6 setpoint and one or two channels are inoperable. Below the P-6 setpoint, the NIS source range performs the monitoring and protection functions. The inoperable NIS intermediate range channel(s) must be returned to OPERABLE status prior to increasing power above the P-6 setpoint. The NIS intermediate range channels must be OPERABLE when the power level is above the capability of the source range, P-6, and below the capability of the power range, P-10.~~

I.1

Condition I applies to one inoperable Source Range Neutron Flux trip channel when in MODE 2, below the P-6 setpoint, and performing a reactor startup. With the unit in this Condition, below P-6, the NIS source range performs the monitoring and protection functions. With one of the two channels inoperable, operations involving positive reactivity additions shall be suspended immediately.

This will preclude any power escalation. With only one source range channel OPERABLE, core protection is severely reduced and any actions that add positive reactivity to the core must be suspended immediately.

J.1

Condition J applies to two inoperable Source Range Neutron Flux trip channels when in MODE 2, below the P-6 setpoint, and performing a reactor startup, or in MODE 3, 4, or 5 with the ~~RTBs closed and the CRD~~ Rod Control System capable of rod withdrawal or all rods not fully inserted. With the unit in this Condition, below P-6, the

TR 3.3-006

one or more

(continued)

BASES

ACTIONS

J.1 (continued)

NIS source range performs the monitoring and protection functions. With both source range channels inoperable, the RTBs must be opened immediately. With the RTBs open, the core is in a more stable condition and the unit enters Condition L.

K.1 ~~and~~ K.2.1, and K.2.2

one or more

TR 3.3-006

Condition K applies to one inoperable source range channel in MODE 3, 4, or 5 with the ~~RTBs closed and the CRD~~ Rod Control System capable of rod withdrawal or all rods not fully inserted. With the unit in this Condition, below P-6, the NIS source range performs the ~~monitoring and~~ protection functions. With one of the source range channels inoperable, 48 hours is allowed to restore it to an OPERABLE status. If the channel cannot be returned to an OPERABLE status, 1 additional hour is allowed ~~to fully insert all rods and~~ place the Rod Control System in a condition incapable of rod withdrawal ~~to open the RTB~~. Once these ACTIONS are completed ~~the RTBs are open~~ the core is in a more stable condition. ~~and the unit enters Condition L.~~ The allowance of 48 hours to restore the channel to OPERABLE status, and the additional hour to ~~open the RTBs, fully insert all rods and~~ place the Rod Control System in a condition incapable of rod withdrawal, are justified in Reference 7.

action must be initiated within the same 48 hours to fully insert all rods.

TR 3.3-006

TR 3.3-006

(e.g., by de-energizing all CRDMs, by opening the RTBs, or by de-energizing the motor generator (MG) sets)

Q 3.3-122

L.1, L.2, and L.3

Condition L applies when the required number of OPERABLE Source Range Neutron Flux channels is not met in MODE 3, 4, or 5 with the RTBs open or with the Rod Control System incapable of rod withdrawal and all rods fully inserted. With the unit in this Condition, the NIS source range performs ~~the~~ a monitoring ~~and protection~~ function~~s~~. With less than the required number of source range channels OPERABLE, operations involving positive reactivity additions shall be suspended immediately. This will preclude any power escalation. ~~In addition to suspension of positive reactivity additions, all valves that could add unborated water to the RCS must be closed within 1 hour as specified in LCO 3.9.2. The isolation of unborated water sources will preclude a boron dilution accident.~~

Also, the SDM must be verified within 1 hour and once every 12 hours thereafter as per SR 3.1.1.1, SDM verification. With no source range channels OPERABLE, core protection is severely reduced. Verifying the SDM within 1 hour allows

(continued)

BASES

ACTIONS

Q.1 and Q.2 (continued)

next 6 hours. The Completion Time of 6 hours (Required Action Q.1) is reasonable considering that in this Condition, the remaining OPERABLE train is adequate to perform the safety function and given the low probability of an event during this interval. The Completion Time of 6 hours (Required Action Q.2) is reasonable, based on operating experience, to reach MODE 3 from full power in an orderly manner and without challenging unit systems.

The Required Actions have been modified by a Note that allows bypassing one train up to ~~[4]~~ hours for surveillance testing, provided the other train is OPERABLE.

R.1 and R.2

Condition R applies to the RTBs in MODES 1 and 2. These actions address the train orientation of the RTS for the RTBs. With one train inoperable, 1 hour is allowed to restore the train to OPERABLE status or the unit must be placed in MODE 3 within the next 6 hours. The Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power in an orderly manner and without challenging unit systems. The 1 hour and 6 hour Completion Times are equal to the time allowed by LCO 3.0.3 for shutdown actions in the event of a complete loss of RTS Function. Placing the unit in MODE 3 ~~removes the requirement for this particular Function~~. TR 3.3-006

results in Condition C entry if one RTB train is inoperable

Remove strike out

Q 3.3-03

The Required Actions have been modified by ~~two~~ three Notes. Note 1 allows one ~~channel~~ RTB to be bypassed for up to 2 hours for surveillance testing or maintenance, provided the other ~~channel~~ train is OPERABLE. Note 2 allows one RTB to be bypassed only for the time required for performing ~~for up to 2 hours for~~ maintenance on undervoltage or shunt trip mechanisms per Condition U if the other RTB train is OPERABLE. ~~Note 3 allows one RTB to be bypassed for up to 4 hours for logic surveillance testing per Condition Q provided the other train is OPERABLE.~~ The ~~2 hour~~ time limits are ~~is~~ justified in Reference 7 ~~6 and 13~~. Q 3.3-03

S.1 and S.2

Condition S applies to the P-6 and P-10 interlocks. With one or more ~~required~~ channels inoperable ~~for one-out-of-two or two-out-of-four coincidence logic~~, the associated interlock must be verified by observation of the associated permissive annunciator window to be in its required state for the existing unit condition Q 3.3-44

(continued)

BASES

ACTIONS

U.1, ~~U.2.1,~~ and U.2~~.2~~ (continued) one or more TR 3.3-006

With the ~~RTBs open and the~~ unit in MODE 3, Condition C is entered if the inoperable trip mechanism has not been restored and the Rod Control System is capable of rod withdrawal or all rods are not fully inserted. ~~this trip Function is no longer required to be OPERABLE.~~ The affected RTB shall not be bypassed while one of the diverse features is inoperable except for the time required to perform maintenance to restore the inoperable trip mechanism to OPERABLE status, consistent with Ref. 13. ~~one of the diverse features. The allowable time for performing maintenance of the diverse features is 2 hours for the reasons stated under Condition R.~~

The Completion Time of 48 hours for Required Action U.1 is reasonable considering that in this Condition there is one remaining diverse feature for the affected RTB, and one OPERABLE RTB capable of performing the safety function and given the low probability of an event occurring during this interval.

V.1

NOT USED
~~With two RTS trains inoperable, no automatic capability is available to shut down the reactor, and immediate plant shutdown in accordance with LCO 3.0.3 is required.~~

W.1 and W.2 Q 3.3-46

Condition W applies to the Seismic Trip, in MODES 1 and 2. With one of the channels inoperable, START UP and/or POWER OPERATION may proceed provided the inoperable channel is placed in trip within the next 6 hours. If a direction is inoperable, then the channel must be considered inoperable. Placing the channel in the tripped condition creates a partial trip condition requiring only one out of two logic for actuation for that particular location.

The Required Actions have been modified by a Note that allows placing the inoperable channel in the bypassed condition for up to 72 hours while performing routine surveillance testing of the other channels. The allowed 72 hour bypass time is reasonable based on the low probability of an event occurring while the channel is bypassed and on the time required to perform the required surveillance testing.

X.1, X.2 and X.3 Q 3.3-46

~~Condition X applies to the Trip Time Delay (TTD) circuitry for the SFG Water Level-Low Low trip function when THERMAL POWER is less than or equal to 50% RTP in MODES 1 and 2. With one or more TTD circuitry delay timers inoperable, adjust the threshold power level for no time delay to 0% RTP, or place the affected SFG-low low level in trip. The Completion Time of 6 hours is based on Reference 7.~~

INSERT ACTION X BASES

(continued)

CHANGE NUMBER	JUSTIFICATION
3.3-100	Not used.
3.3-101	The Note for ITS SR 3.3.1.12 is deleted since the plant design no longer includes the RTD bypass. The SR is retained and is applied to the required seismic trip instrumentation per the current licensing basis. Where cited in Table 3.3.2-1, a change to SR 3.3.1.10 has been made.
3.3-102	The control room (CR) does not have CR Atmosphere monitors as part of its current design. There are redundant CR intake monitors for each intake. The normal control room intakes are in an area common to both units, thus there are a total of four normal intake monitiors. However, only two monitors, one from each unit, are required for the CRVS to be OPERABLE; this is explained in the Bases.
3.3-103	Function 11 of ITS Table 3.3.1-1 is revised per the CTS to reflect the current plant design of only a two loop trip. With this revision, ACTION O is no longer used since it was only applicable to the single loop trip.
3.3-104	CONDITION A of ITS 3.3.5 is revised to incorporate CTS ACTION 16. CONDITIONS B and C are not used.
3.3-105	Function 4.d.(2) of ITS Table 3.3.2-1 and Notes (c) and (h) are revised per current licensing basis.
3.3-106	ISTS 3.3.1 Required Actions B.2.2 and U.2.2 are not used, consistent with the current TS requirements of LCO 3.3.1 ACTION Statements [1, and 12] and the Applicability for ITS Table 3.3.1-1 Functions 1 and 20. The current TS provide for these Functions to be restored to OPERABLE status within 48 hours or the plant must be in HOT STANDBY within the next 6 hours when the plant is initially in MODES 1 or 2. Once HOT STANDBY has been reached, the shutdown mode applicabilities, i.e. MODES 3, 4, and 5, prevail. When in these MODES, another 48 hour AOT is allowed by the current TS or rod withdrawal must be precluded in the next one hour. Therefore, ISTS Required Actions B.2.2 and U.2.2 for Functions 1 and 20 in Table 3.3.1-1 are not necessary since the performance of Required Action B.2.1 and U.2.1 takes the plant to MODE 3, exits the Applicability, and requires entry into Condition C. This change is consistent with ITS ~~1.3~~ and 3.0.4. And traveler TSTF-135 Rev.3. TR 3.3-006
3.3-107	Based upon operating experience to change Thermal Power in a controlled fashion without challenging the plant and consistent with the current TS which does not have a Completion Time for restoring one channel to OPERABLE status; but does prevent going above P-10 until it is restored, the Completion Time for ITS 3.3.1 Required Actions F.1 and F.2 should be increased to 24 hours. Condition F of ITS 3.3.1 is for one Intermediate Range Neutron Flux channel inoperable. Reactor protection would be provided by the OPERABLE Intermediate Range Neutron Flux channel and OPERABLE Power Range Neutron Flux channels. Indication would be available from the OPERABLE Intermediate Range Neutron Flux channel [, from OPERABLE Gamma-Metrics Neutron Flux detectors,] and from OPERABLE Power Range Neutron Flux channels with power approaching P-10. ~~The Westinghouse Owners Group is considering a generic change on this issue, but deliberations were not completed at the time of our submittal.~~ See TSTF-24L. TR 3.3-001
3.3-108	~~Not used.~~ INSERT 3.3-108 Q 2-04 (2.0)

Not Applicable to DCPP. See Conversion Comparision Table (Enclosure 6B) DC 3.3-004

CHANGE NUMBER	JUSTIFICATION	
3.3-109	~~Not used.~~ INSERT 3.3-109	Q 8-11.
3.3-110	~~Not used.~~ INSERT 3.3-110.	DCALL-005
3.3-111	~~This change adds a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the current TS and is an enhancement which is easily performed and provides additional assurance that the interlocks are functioning correctly.~~	DC 3.3-004
3.3-112	~~Not used.~~ INSERT 3.3-112	Q 12-05(3.6)
3.3-113	~~Not used.~~ INSERT 3.3-113	Q 2-05(2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114	Q 3.3-66
3.3-115	Not used.	
3.3-116	ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps. The function exists, but is not credited in any accident analysis and is not part of ESFAS Function 6 in the CTS.	
3.3-117	This change to ITS 3.3.1 Condition R reflects current TS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.	
3.3-118	This change is for consistency with ITS 3.7.10 Condition [G].	
3.3-119	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-120	~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.~~ Not used.	Q 3.3-120
3.3-121	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-122	ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring the RTBs to be opened with ACTIONS that ensure subcriticality is maintained (i.e., by initiating action to fully insert~~ing~~ all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135.	TR 3.3-006
3.3-123	This change deletes ACTION L.2 and renumbers L.3 since the requirement to close the unborated water source valves is not in the CTS and is not part of the current licensing basis. This new requirement is not applicable to DCPP which has a licensed dilution accident evaluation (refer to License Amendment 28/27). The current licensing bases in accordance with NUREG 0800, Section 15.4.6 provides adequate assurance that a dilution event will be recognized and arrested in a timely fashion.	DC 3.3-Ed
3.3-124	Consistent with the current TS Table 4.3-1, Note [15], the note for ITS SR 3.3.1.4 is modified, a note is added to Table 3.3.1-1, and Function 20 are modified to clarify that the SR is required for the reactor trip bypass breaker local manual shunt trip only. The Bases for SR 3.3.1.14 clearly state that SR 3.3.1.14 includes the automatic undervoltage trip of the reactor trip bypass breakers. The Note (k) added to Table 3.3.1-1, Function 20 clarifies the Applicability of the undervoltage and shunt trip mechanisms to include those functions of the reactor trip bypass breakers when in use.	

CHANGE NUMBER | JUSTIFICATION

3.3-125 ITS SR 3.3.1.11 is modified by a Note that requires verification that the time constants are adjusted to the prescribed values. The addition of this Note is consistent with SR 3.3.1.10 and is required because SR 3.3.1.11 is used for the Power Range Neutron Flux - High Positive Rate [and High Negative Rate] trip functions which have a time constant associated with their calibration.

Since the trip is bypassed below P-7

Q 2-08

3.3-126 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-127 The MODE 2 applicability for the undervoltage RCP start of the steam-driven AFW pump is deleted and the surveillance Frequency is revised per the DCPP CTS. Thus, the Required Actions of ACTION I are revised to include entering MODE 2 for function 6.g and MODE 3 for function 5.b, ~~and~~ the required surveillance is changed from SR 3.3.2.7 to SR 3.3.2.8. This anticipatory start of the steam-driven AFW pump is not credited for MODE 2 operation, only the SG low level start signal is used for MODE 2 or 3.

for Function 6.g.

Q 3.3-127

the previously NOT USED ACTION J is created to include entering

3.3-128 This change revises ITS Table 3.3.4-1 to be consistent with CTS 3.3.3.5.

3.3-129 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-130 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-131 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-132 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-133 This change revises ITS LCO 3.3.5 and SR 3.3.5.3 to include the DG start sequence delay timers from CTS Table 3.3-4.

3.3-134 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-135 A MODE change restriction has been added to ITS 3.3.1 Condition C per the matrix discussed in CN 1-02-LS-1 of the 3.0 package (see LS-1 NSHC in the CTS Section 3/4.0, ITS Section 3.0 package).

3.3-136 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-137 The Condition for Function 4.c is changed from Condition D to E consistent with the CTS. ~~Plant design requires~~ this Function to be bypassed, not tripped if inoperable.

Insert 3.3-137

DC ALL-003

INSERT 6A table

Q 3-LS GEN

Insert 6A Table

3.3-138	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).	CP 3.3-003
3.3-139	This change adds new SR 3.3.2.13 which is the performance of an 18 month TADOT. SR 3.3.2.8 is the performance of a TADOT every 24 months for DCPP. As part of the DCPP 24 month fuel cycle evaluations, the AFW manual actuation function was not evaluated for the surveillance extension since the test can be performed at any time. Therefore, the test frequency will remain at 18 months.	DC ALL-002
3.3-140	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).	CA 3.3-007
3.3-141	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).	CA 3.3-002
3.3-142	Adds "or trains" to ITS 3.3.1 Condition A, consistent with ITS 3.3.2 and Traveler TSTF-135.	TR 3.3-006
3.3-143	Not used.	
3.3-144	SR 3.3.7.3 and 3.3.7.4 are deleted since there are no actuation logic or master relays associated with the CRVS pressurization system actuation via the CRVS atmosphere intake radiation monitors. The CRVS atmosphere intake monitors actuate the pressurization system directly via the CRVS relays and do not go through the SSPS. The only actuation of the CRVS pressurization mode of operation via the SSPS is via the Phase A signal actuation.	Q 3-08

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-36	Revisions reflect revised BDMS setpoint in CTS.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 94 dated 3-7-95)
3.3-37	Several ITS Required Action Notes are modified to allow a channel to be placed in bypass for surveillance testing. [~~This change is consistent with the CTS.~~]	Yes	Yes	No, not in current design or TS.	No, not in current design or TS. DC ALL-002
3.3-38	The CPSES design uses the N-16 based overtemperature and overpower protective functions. Several changes to the setpoints, Required Actions and Surveillances of NUREG-1431 are required to maintain the current licensing basis.	No	Yes	No	No
3.3-39	ITS Table 3.3.7-1 is changed to be consistent with CTS Table 3.3-3. The Actuation Logic was split to reflect the SSPS, with only MODE 1-4 Applicability, and BOP-ESFAS portions and associated SR requirements in the CTS.	No, not in CTS.	No, not in CTS.	Yes	Yes
3.3-40	~~Add "and setpoint adjustment" to ITS 3.3.1 Condition E, similar to the Note for Condition D.~~ Not used	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA Q 3.3-40
3.3-41	ITS 3.3.1 Condition L is deleted to match the plant-specific design ~~and the CTS~~ for the Source Range Neutron Flux Function in MODES 3, 4, and 5 with the Rod Control System incapable of rod withdrawal and all rods fully inserted. Under these conditions, the source range instrumentation does not provide a Reactor Trip System Function. The source range channels provide only indication [and inadvertent boron dilution mitigation] when in this Applicability. Requirements related to the source range neutron flux channels in MODES 3, 4, and 5 when all rods are fully inserted and are not capable of being withdrawn have therefore been [moved to ITS 3.3.9. ~~Footnote (f) of ITS Table 3.3-1 is added to Function 5 and revised accordingly~~].	No, see CN 3.3-123.	Yes	Yes	Yes CA 3.3-016 TR 3.3-006

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-86	Surveillance Requirement 3.3.5.2 is revised to reflect the current CPSES plant design and licensing basis. A Note is added to SR 3.3.5.2 indicating that setpoint verification is not applicable for the performance of the TADOT. This verification is performed during Channel Calobrations (see SR 3.3.5.3).	No	Yes, see also CNs 3.3-31, 3.3-130, and 3.3-131.	No	No
3.3-87	Not used.	NA	NA	NA	NA
3.3-88	Revise ITS 3.3.9 to apply in MODE 2 only below P-6 and to reflect ACTION Statement 5.b per CTS Table 3.3-1.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes
3.3-89	Revise COT in ITS SR 3.3.9.3 to add the 4 hour allowance from ITS SR 3.3.1.7.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes
3.3-90	Exclude neutron detectors from CHANNEL CALIBRATION ITS SR 3.3.9.4 per CTS Table 4.3-1, Functional Unit 6, Note ~~4~~ and TSTF-135	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes TR 3.3-006
3.3-91	Add CHANNEL CHECK and response time surveillances (ITS SR 3.3.9.1 and SR 3.3.9.5) per CTS Table 4.3-1, Functional Unit 6, Note 12 and TSTF-135	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes TR 3.3-006
3.3-92	Adds SR 3.3.4.2 Note that the ASP controls for the TDAFW pump and SG ASDs are not required to be verified prior to entry into MODE 3, consistent with CTS SR 4.3.3.5.3.	No, adopted ISTS format.	No, not in CTS.	No, adopted ISTS format.	Yes
3.3-93	ITS 3.3.1 Condition V is deleted. It is not entered from Table 3.3.1-1 nor do the Bases clarify when it would be needed, raising the concern of misinterpretation. Condition V does not replace LCO 3.0.3 requirements to assess when the plant is outside the licensing basis.	Yes	Yes	Yes	Yes
3.3-94	ITS 3.3.4 is revised per CTS [3.3.3.5] with regard to [ASP] controls.	~~Yes~~ No	Yes	~~No, adopted ISTS format.~~ Yes	Yes

Q 3.3-94

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-115	Not used.	N/A	N/A	N/A	N/A
3.3-116	ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps.	Yes	No	No	No
3.3-117	This change to ITS 3.3.1 Condition R reflects CTS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.	Yes	~~No, not in CTS~~ Yes	Yes	Yes Φ 3.3-117
3.3-118	This change is for consistency with ITS 3.7.10 Condition [G].	Yes	Yes	Yes	Yes
3.3-119	This change reflects Callaway-specific BDMS analysis restrictions associated with RCS mixing volume and dilution flow rate. These are administratively controlled under the CTS, as approved in OL Amendment No. 94 dated March 7, 1995. However, with the conversion to ITS 3.3.9, these analysis assumptions should be included in the body of the TS.	No	No	No	Yes
3.3-120	~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package~~ Not used.	~~Yes~~ N/A	~~Yes~~ N/A	~~Yes~~ N/A	~~Yes~~ N/A Φ 3.3-120
3.3-121	For Callaway, ITS 3.3.9 is revised to reflect that only one BDMS train is required OPERABLE in MODE 5 and that the suspension of positive reactivity additions and accelerated SDM verifications are required only if no source range neutron flux indicator is OPERABLE.	No	No	No	Yes
3.3-122	ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring the RTBs to be opened with ACTIONS that ensure subcriticality is maintained (i.e., by initiating action to fully insert~~ing~~ all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135.	Yes	Yes	Yes	Yes TR 3.3-006

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-131	ITS 3.3.5 Condition B is replaced with new Conditions B, C, D, and E. Condition C in the ISTS is changed to Condition F. The CPSES CTS have specific actions for the various bus undervoltage and degraded voltage function. These actions allow an appropriate amount of time to restore an inoperable channel or declare the associated power source or bus inoperable and take action to isolate an inoperable power source. These actions are a proper way to respond to the inoperable channels because the actions result in taking the Required Actions in ITS 3.8 associated with the affected power source or bus. The new Conditions match the Actions of the CTS.	No	Yes	No	No
3.3-132	The trip setpoints for the loss of power diesel generator start instrumentation are relocated to a licensee controlled document. This approach is consistent with a format allowed by a reviewer's note for the RTS and ESFAS instrumentation.	No -adopted ITS format.	Yes	No, adopted ITS format.	No, adopted ITS format.
3.3-133	This change revises ITS LCO 3.3.5 and SR 3.3.5.3 to include the DG start sequence delay timers from DCPP CTS Table 3.3-4.	Yes	No	No	No
3.3-134	This change is Wolf Creek specific to revise the NOTE in Condition K of ITS 3.3.2 consistent with CTS Table 3.3-3 Action 30 ~~18~~ for Function 7b ~~and Amendment 43 to provide 4 hours foran additional channel to be placed in bypass for surveillance testing of other channels~~.	No	No	Yes	No WC 3.3-018
3.3-135	A MODE change restriction has been added per the matrix discussed in CN 1-02-LS-1 of the ITS 3.0 package.	Yes	Yes	Yes	Yes
3.3-136	The TADOT perfromed under ITS SR 3.3.2.7 includes verification of relay setpoints since the trip actuating devices being tested are the same circuits tested under ITS SR 3.3.5.2.	No, adopted ISTS format.	No, adopted ISTS format.	Yes	Yes
3.3-137	The Condition for Function 4.c is changed from Condition D to E consistent with the DCPP CTS.	Yes	No	No	No DC ALL-003

INSERT 6B Table

Q 3-LS GEN

Insert for Enclosure 6B
Insert 6B Table

3.3-138	This CPSES-specific change revises Table 3.3-1-1, Note 1, to reflect new Overtemperature N-16 parameters approved for Unit 2 in Amendment 55/41, and submitted for Unit 1 in LAR 97-03.	No	Yes	No	No
3.3-139	This DCPP-specific change adds new SR 3.3.2.13 which is the performance of an 18 month TADOT. SR 3.3.2.8 is the performance of a TADOT every 24 months for DCPP.	Yes	No	No	No
3.3-140	Changes to RTS and ESFAS ΔT Functions are made to reflect Callaway OL Amendment No. 125 dated 4/13/98.	No	No	No	Yes
3.3-141	Changes to ESFAS Feedwater Isolation Functions are made to reflect Callaway OL Amendment No. 126 dated 4/23/98.	No	No	No	Yes
3.3-142	Adds “or trains” to ITS Condition A, consistent with ITS 3.3.2 and TSTF-135.	Yes	Yes	Yes	Yes
3.3-143	Not used.	NA	NA	NA	NA
3.3-144	For DCPP, SR 3.3.7.3 and 3.3.7.4 are deleted since there are no actuation logic or master relays associated with the CRVS pressurization system actuation via the CRVS atmosphere intake radiation monitors.	Yes	No	No	No

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-B GEN **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Generic Bases Changes RAI

Comment: (1) For all topical reports listed in the Section 3.3 Bases provide documentation of an NRC staff letter approving plant-specific use of topical report TS changes.

(2) Respond to reviewer comments on ITS Bases deviations from ITS which will be provided once agreement is reached on the LCO requirements and the supporting Bases changes are provided to the reviewer.

Based on 8/14/98 no response is required to item (2).

FLOG RESPONSE: This RAI must be addressed on a plant-specific basis.

Plant-Specific Discussion

For DCPP, the ITS Bases reference the following WCAPs:

WCAP	Abbreviated Title	Approval
1) 11082, Rev. 2	Eagle 21	LA 84/83
2) 10271-P-A, Supp, 2, Rev. 1	RTS/ESFAS Testing	LA 61/60
3) 13878	Potter Brumfield MDR Reliability	LA 115/113
4) 13900	Slave Relay Test Extensions	LA 115/113
5) 14117	Potter Brumfield MDR Reliability	LA 115/113
6) 11082, Rev. 5	Testing Extension to 24 Months	LA 122/120
7) 9226	Sm. Steam Line Break & OTDT	CTS Bases
8) 13632-P-A	Eliminate Response Time Testing of Pressure Sensors	Generic Approval

WCAP-13632-P-A, generically approved by NRC, is contingent upon four SER conditions. Those four conditions are addressed in NSHC LS-1 in Enclosure 4. WCGS took the discussions in NSHC LS-1, minus the text on the NRC SER conditions, and submitted a separate license amendment request (LAR). They received one RAI related to the SER conditions already addressed in LS-1 and received an amendment on October 20, 1997. Those FLOG members that continue to pursue approval of LS-1 consider it an unnecessary expenditure of resources to submit a separate LAR on this issue (WCGS did so only under outage schedule concerns). It is noted that this issue is also the subject of Traveler TSTF-111, Rev. 4.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-01 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

A Note, "Separate Condition entry is allowed for each Function," is added to the ACTIONS for the Reactor Trip System, ESFAS, [Remote Shutdown, including each required ASP control], and Accident Monitoring Instrumentation. This change clarifies those situations where the current TS ACTION Statements are not uniquely associated with a particular Function or where the required channels are specified on a per steam line, per loop, per SG, per bus, etc., basis.

Comment: The new note Separate Condition entry allowed for each function is justified as an administrative change reflecting the current interpretation of the technical specification requirements. This is inconsistent with the fact that CTS LCO 3.3.3.5 explicitly provides for separate condition entry (Action c). If separate condition entry is the general practice, one would expect that explicit provision for this would be unnecessary in LCO 3.3.3.5. Thus, adopting "separate condition entry" where CTS actions are not uniquely associated with a particular Function can not be evaluated as "administrative changes" as stated in this DOC. Evidence that separate condition entry is the current interpretation for the other LCOs should be provided.

FLOG RESPONSE: The reference to CTS LCO 3.3.3.5 Action c applies to DCPP only. PG&E received an amendment in 1994 (LA 94/93 for Units 1 and 2 respectively) that was based on adopting some of the language of NUREG-1431 regarding separate condition entry. The separate Action or Condition entry language is not found in the old STS, NUREG-0452. Separate Condition entry is, in fact, the established plant practice at all FLOG plants where required Functions are listed in tables and often use common Action Statements. DOC 1-01-A has been revised to provide further discussion.

ATTACHED PAGES:

Encl. 3A 1

DESCRIPTION OF CHANGES TO TS SECTION 3/4.3

This Enclosure contains a brief description/justification for each marked-up change to existing current plant Technical Specifications (CTS). The changes are keyed to those identified in Enclosure 2 (mark-up of the CTS). The referenced No Significant Hazards Considerations (NSHC) are contained in Enclosure 4. All proposed technical changes to the CTS are discussed below; however, some administrative changes (i.e., format, presentation, and editorial changes made to conform to the Improved Technical Specifications (ITS)) may not be discussed. For Enclosures 3A, 3B, 4, 6A, and 6B, text in brackets "[ ]" indicates the information is specific and is not common to all the Joint Licensing Subcommittee (JLS) Plants. Empty brackets indicate that other JLS plants may have plant specific information in that location.

CHANGE NUMBER	NSHC	DESCRIPTION	
01-01	A	A Note, "Separate Condition entry is allowed for each Function," is added to the ACTIONS for the Reactor Trip System, ESFAS, ~~[Remote Shutdown also applies to each required ASP control]~~, Radiation Monitoring (except RCS leakage since it has separate ACTIONS specified for each function or combination of functions) and Accident Monitoring Instrumentation. This change clarifies those situations where the current TS ACTION Statements are not uniquely associated with a particular Function or where the required channels are specified on a per steam line, per loop, per SG, per bus, etc., basis. This change is consistent with current operating practices and NUREG-1431. [ ] INSERT 1-01-A	DC ALL-002; DC 3.3-Ed; Q 1-01
01-02	LG	The CTS require that response time testing be performed on each reactor trip and ESFAS function every ~~48~~ [24] months and that alternate trains be tested in successive tests. The CTS description of the channel testing protocol matches the improved TS definition of STAGGERED TEST BASIS. However, several trip functions do not require response time testing, as indicated by N.A. in the tables of response time limits [(presently located in Tables 3.3-2 and 3.3-5 of the CTS, which are being to the FSAR per CN 01-35-LG)]. The improved TS specify that ~~required~~ response time testing be performed on a STAGGERED TEST BASIS and do not impose any requirements as to which train should be tested. Therefore, ~~the word "requirement" is added to the CTS and~~ the requirement to ensure that each train is tested every ~~36~~ [48] months is moved to the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10.	DC ALL-001; Q 3.3-55; Q 3.3-55; DC-ALL-001
01-03	LS1	In CTS SR 4.3.1.2 and 4.3.2.2, the active verb is changed from "demonstrated" to "verified." This allows Reactor Trip System and ESFAS sensor response time verifications to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements." This change is consistent with Traveler TSTF-111 Rev. ~~0~~, which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing.	Q 1-03

[illegible]

Insert for Q 1-01

Enclosure 3A page 1
Insert 1-01-A

Separate Condition entry is the established plant practice at all FLOG plants where required instrument Functions are listed in tabular format. The inoperability of one instrument Function has no impact on the operability of unrelated instrument Functions. The tabular format of the instrumentation tables with common Action Statements for many Functions mandate separate Condition entry, otherwise a single isolated problem with one instrument channel could unduly restrict plant operation. Unless separate Condition entry was the current practice, no plant could have more than a single inoperable channel for all of the RTS Functions. Likewise, the inoperability of a channel in one loop for a Function specified on a "per loop" required channel basis has nothing to do with other channels in other loops of that Function (barring a common mode failure which is addressed by LCO 3.0.3). Since this change does not affect the operating limits or manner in which the plant is currently operated, this is an administrative change.

[illegible]

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-02 **APPLICABILITY:** DC, WC

REQUEST:

The improved TS specify that required response time testing be performed on a STAGGERED TEST BASIS and do not impose any requirements as to which train should be tested. The requirement to ensure that each train is tested every 36 months is moved to the Bases for SR 3.3.1.16 and SR 3.3.2.10.

Comment: 1) The discussion is inaccurate. The requirement defining STAGGERED TESTING is a definition in Section 1.0 of ITS. Revise the LG DOC.

Rev 0 accepted based on 8/14/98 meeting which clarified CTS markup.

2) Errata sheets were provided to the CTS markup and the ITS to incorporate a previously approved license change application to extend the refueling cycle from 18 to 24 months. Since that previous application is unavailable TSB cannot confirm that the previously approved changes have been faithfully incorporated into the ITS. In some cases the ITS markup does not reflect changes that one would expect to result from a cycle extension. For example, channel calibrations appear to still be required on a 18 month frequency. Review the ITS markup against the cycle extension application to confirm that those changes are properly incorporated into the ITS.

3) The surveillance frequency for the TADOT of function 1 (manual trip) and several other functions appears to reference a note 24 which is not provided. It may be that the note is intended to indicate that these surveillances are on a 24 month interval. If so, that should be clearly indicated. See also comment CTS 3.3.1-1.

Rev 0 accepted based on 8/14/98 meeting which clarified CTS markup.

{WC} CTS SR 4.3.2.2 Note * becomes notation to ITS SR 3.3.2.10. The ITS includes allowances for minimum times and pressure for performing the requried SR. These changes are not indenditiied or evaluated. Provide additonal justification.

FLOG RESPONSE: For DCPP, the CTS errata sheets provided were for the changes due the issuance of the 24-month fuel cycle extension License Amendments 118/116 and 119/117. There were a total of five LARS submitted for the 24-month fuel cycle extension; thus not all 24-month fuel cycle extension revisions were included in the errata. LA 122/120 was issued on February 17, 1998, LA 123/121 was issued on February 27, 1998, and LA 126/124 was issued on June 5, 1998. The markups to incorporate these latest approved revisions are enclosed as Addition Information Number DC ALL-005. The CTS and the ITS markups as revised by the five LARS and their respective LAs has been reviewed and verified to be consistent.

The 24 following the refueling frequency designation "R" is not a note, but a means to differentiate between those surveillances remaining on an 18-month frequency, "R", and those being revised to an 24-month frequency, "R24." The frequency designation was explained in the 24-month License Amendment Requests and incorporated into the CTS DEFINITIONS.

[illegible]

For the WCGS item regarding CTS SR 4.3.2.2 Note *, see the response to Comment Number Q 2-40.

ATTACHED PAGES:

None, refer to the pages attached to DC-ALL-005.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-03 **APPLICABILITY:** CA, DC, WC

REQUEST:

Changing "demonstrated" to "verified" allows Reactor Trip System and ESFAS sensor response time verifications to be performed per WCAP-13632-P-A Revision 2. This change is consistent with traveler TSTF-111.

Comment: Reject - [OOS] The ITS proposes generic changes to the STS that are not included in an approved TSTF. Adoption of WCAP-13632 for eliminating selected sensor response time testing requires staff review independent of the Conversion TS review.

FLOG RESPONSE: This change is the subject of TSTF-111, Rev. 4, currently under active NRC and TSTF discussion. This DOC no longer applies to WCNOC based on Amendment 113, dated October 20,1997 (see their licensee identified change WC-3.3-009). The response to Comment Number Q 1-B-GEN provides additional discussion.

ATTACHED PAGES:

Encl. 3A	1
Encl. 4	15
Encl. 5A	Traveler Status Sheet

DESCRIPTION OF CHANGES TO TS SECTION 3/4.3

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CHANGE NUMBER	NSHC	DESCRIPTION	
01-01	A	A Note, "Separate Condition entry is allowed for each Function," is added to the ACTIONS for the Reactor Trip System, ESFAS, [~~Remote Shutdown also applies to each required ASR control~~], Radiation Monitoring (except RCS leakage since it has separate ACTIONS specified for each function or combination of functions) and Accident Monitoring Instrumentation. This change clarifies those situations where the current TS ACTION Statements are not uniquely associated with a particular Function or where the required channels are specified on a per steam line, per loop, per SG, per bus, etc., basis. This change is consistent with current operating practices and NUREG-1431. [ ] INSERT 1-01-A	DC ALL-002 DC 3.3-Ed Q 1-01
01-02	LG	The CTS require that response time testing be performed on each reactor trip and ESFAS function every 48 [24] months and that alternate trains be tested in successive tests. The CTS description of the channel testing protocol matches the improved TS definition of STAGGERED TEST BASIS. However, several trip functions do not require response time testing, as indicated by N.A. in the tables of response time limits [(presently located in Tables 3.3-2 and 3.3-5 of the CTS, which are being to the FSAR per CN 01-35-LG)]. The improved TS specify that ~~required~~ response time testing be performed on a STAGGERED TEST BASIS and do not impose any requirements as to which train should be tested. Therefore, ~~the word "requirement" is added to the CTS and~~ the requirement to ensure that each train is tested every 36 [48] months is moved to the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10.	DC ALL-001 Q 3.3-55 Q 3.3-55 DC-ALL-001
01-03	LS1	In CTS SR 4.3.1.2 and 4.3.2.2, the active verb is changed from "demonstrated" to "verified." This allows Reactor Trip System and ESFAS sensor response time verifications to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements." This change is consistent with Traveler TSTF-111 Rev. 0 which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing.	Q 1-03

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS1
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

In CTS SR [4.3.1.2 and 4.3.2.2], the active verb is changed from "demonstrated" to "verified." This allows Reactor Trip System and ESFAS sensor response time verifications to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Test Requirements." This change is consistent with Traveler TSTF-111, Rev. 1 which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing. Q1-05

In 1975 response time testing (RTT) requirements were included in the Westinghouse Standard Technical Specifications and were required for all plants licensed after that date.

The CTS contain definitions for both Reactor Trip System and Engineered Safety Feature (ESF) response times. The response time definitions are:

> "The REACTOR TRIP SYSTEM RESPONSE TIME shall be the time interval from when the monitored parameter exceeds its trip setpoint at the channel sensor until loss of stationary gripper coil voltage."

> "The ESF RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its ESF actuation setpoint at the channel sensor until the ESF equipment is capable of performing its safety function (i.e., the valves travel to their required positions, pump discharge pressures reach their required values, etc.). Times shall include diesel generator starting and sequence loading delays where applicable."

The current {method requires} that the response time may be measured by any series of sequential, overlapping, or total channel test measurements such that the total channel response time is measured. This approach is also consistent with ISA Standard 67.06. Given this guidance and the complexity of testing an entire instrument channel from the sensor to the final device, plant surveillance procedures test the channels in several steps. One individual step is the instrument sensor. Separate procedures using specialized test equipment are used solely for testing the sensors.

The purpose of this evaluation is to determine if the deletion of periodic response time testing could be justified for specific pressure, level, and flow functions that utilize pressure and differential pressure sensors. IEEE Standard 338-1977 defines a basis for eliminating RTT. Section 6.3.4 states:

> "Response time testing of all safety-related equipment, per se, is not required if, in lieu of response time testing, the response time of the safety system equipment is verified by functional testing, calibration check, or other tests, or both."

WCAP-13632-P-A Rev. 2 provides the technical justification for deletion of periodic response time testing of selected pressure sensing instruments. The program described in the WCAP utilizes the methods contained in EPRI Report NP-7243 Rev. 1, "Investigation of Response Time Testing Requirements," for justifying elimination of response time testing surveillance requirements on certain pressure and differential pressure sensors. The EPRI report justifies the elimination of response time testing based on Failure Modes and Effects Analysis (FMEA) that show that component degradation that impacts pressure sensor response time can be detected in other routine tests such as calibration tests. The report concludes that sensor RTT is redundant to other technical specification surveillance requirements such as sensor calibrations. The EPRI report only applies to those specific sensors included in the FMEA.

To address other sensors installed in Westinghouse designed plants, the WCAP contains a similarity analysis to sensors in the EPRI report or an FMEA to provide justification for elimination of response time

INDUSTRY TRAVELERS APPLICABLE TO SECTION 3.3

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	NA	changes ~~Not~~ NRC approved ~~as of traveler cut-off date.~~ Bases only TR 3.3-004
~~TSTF-36, Rev. 2~~	~~Incorporated~~	~~3.3-34~~	Q 3.3-34
TSTF-37, Rev. 1	Not Incorporated	NA	ITS 5.6.8 still addresses PAM reports. Sections after ITS 5.6.7 were not renumbered.
TSTF-51	Not Incorporated	NA	Requires plant-specific reanalysis to establish decay time dependence for fuel handling accident.
~~TSTF-91~~	~~Not Incorporated~~	~~NA~~	~~[Trip Setpoints and] Allowable Values for loss of voltage and degraded voltage will remain in the TS.~~ TR 3.3-005
TSTF-111, Rev. 4	Incorporated	NA	Q 1-03
TSTF-135, Rev. 1	Partially Incorporated 3.3-90 3.3-91 3.3-106	3.3-41, 3.3-44, 3.3-93, 3.3-95, 3.3-122, 3.3-142	~~Traveler is too broad scoope in nature; should have been separate travelers: Portions of the traveler that significantly clarify operability requirements have been incorporated.~~ TR 3.3-006
TSTF-161, Rev. 1	Incorporated	3.3-79	Approved by NRC Q 3.3-79
TSTF-168	Incorporated	3.3-43	Approved by NRC. Q 3.3-43
TSTF-169	Incorporated	3.3-42	Approved by NRC. TR 3.3-003
~~WOG-106~~ TSTF-242	Incorporated	3.3-49	Q 3.3-49
~~Proposed Traveler~~ TSTF-246	Incorporated	3.3-107	~~WOG Mini-group Action Item # 45~~ Q 3.3-107

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-05 **APPLICABILITY:** DC, WC, CA

REQUEST:

The LCO 3.0.4 exception [footnote #] in current TS Table 3.3-1 is deleted entirely. ACTION Statements [2, 6, 11, and 13] in current TS Table 3.3-1 permit continued operation for an unlimited period of time. Therefore, no exception to ITS LCO 3.0.4 is needed for these ACTION Statements. [The LCO 3.0.4 exception [footnote *] in current TS Table 3.3-3 is deleted for ACTION Statements [19, 33, 36, and 37.] As above, these ACTION Statements permit continued operation for an unlimited period of time and no exception to ITS LCO 3.0.4 is needed. ACTION Statement [15 for Functional Unit 6.h] will retain the LCO 3.0.4 exception [footnote *] in current TS Table 3.3-3 since this ACTION Statement allows operation for only a limited period of time.]

Comment: {WC, DC, CW} The LCO 3.0.4 exception is deleted in ITS LCO 3.3.5. This change is not evaluated in 1-05A. For this change, explain the administrative nature of the change per the guidance provided at the 8/14/98 meeting.

FLOG RESPONSE: This DOC is correct as submitted for Callaway and Wolf Creek. For those plants, current TS Table 3.3-3 contains ACTION 19* for Functional Units 8.a and 8.b. The * footnote provides an exception to LCO 3.0.4. Based on the wording of LCO 3.0.4 in the current TS, this exception would allow entry into the Applicability of Functional Units 8.a and 8.b while relying on provisions contained in ACTION 19, i.e., the plant could enter the Applicability with one inoperable channel in trip.

Further, based on the wording of LCO 3.0.4 in the improved TS, the plant is allowed to enter the Applicability of ITS LCO 3.3.5 when the "associated ACTIONS to be entered permit continued operation ...for an unlimited period of time." In this case, LCO 3.3.5 Applicability may be entered for one inoperable channel under Condition A since the plant can operate in that Condition indefinitely.

The plant can not enter ITS LCO 3.3.5 Applicability with multiple channels inoperable since restoration activities must be completed. Likewise, the mark-ups to current TS ACTION 19, which did not originally address multiple channel inoperability, do not provide an LCO 3.0.4 exception.

Since DOC 1-18-LS-5 in the ITS 3.0 package (accepted by the NRC staff reviewer) addressed the changes associated with revising CTS LCO 3.0.4 to match ITS LCO 3.0.4, no further discussion should be needed here in ITS 3.3.

For DCPP, the Loss of Power Functional Unit has no CTS CTS 3.0.4 exception.

ATTACHED PAGES:

None

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-06 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

A new ACTION Statement [2.1] is created which does not require a reduction in THERMAL POWER to less than 75% RTP or the measurement of the QPTR if above 75% RTP.

Comment: The new action referenced for the power range low setpoint and the two flux rate trips (functions 3 & 4) no longer require a reduction in power. The Discussion of Change (DOC) and No Significant Hazards Consideration (NSHC) justify this on the basis that the rate trips are not sensitive to the initial power level. This is true. However, the rate trips may be sensitive to the fact that with one channel inoperable one core quadrant is not directly monitored by the power range neutron flux function. Neither the DOC nor the NSHC discuss the impact of this on the possible need to reduce power. Revise the justification.

FLOG RESPONSE: NSHC LS-2 has been revised to provide additional discussion. The impact on the rate trip Function is of no consequence since other Functions provide the required protection.

ATTACHED PAGES:

Encl. 4 19

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS2
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

and

DC ALL-002

A new ACTION Statement [2.1] is created which is essentially the same as current ACTION Statement [6], and is similar to current ACTION Statement [2], but does not require a reduction in THERMAL POWER to less than 75% RTP or the measurement of the QPTR if above 75% RTP. This new ACTION Statement is applied to the Power Range Neutron Flux, High Positive Rate [, High Negative Rate] trip functions. Since these are rate functions, their effectiveness is not improved by reducing power.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> *1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> *2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> *3. Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards, as applied to the relaxation applicable to the power range neutron flux, high positive rate [and high negative rate] trip functions:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the ACTION associated with an inoperable channel in the power range neutron flux, high positive rate [and high negative rate] trip function. No power reduction below 75% RTP or QPTR monitoring above 75% RTP would be required since these actions have no basis for this rate trip function.

   The high positive rate [and high negative rate] trip functions are insensitive to the static power level. The proposed change will not affect any of the analysis assumptions for any of the accidents previously evaluated. [ ] The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

INSERT LS-2

Q 1-06

[illegible]

Insert for Q 1-06

Enclosure 4 page 19
Insert LS-2

Asymmetric reactivity transients that could be postulated to occur in the core quadrant with an inoperable high positive rate channel (e.g., uncontrolled RCCA bank withdrawal from a subcritical or low power startup condition, uncontrolled RCCA bank withdrawal at power, withdrawal of a single RCCA, and RCCA ejection) are mitigated in the accident analyses by other reactor trip functions (e.g., power range neutron flux – low, power range neutron flux – high, or overtemperature [ΔT]), depending upon analysis assumptions regarding initial power level and reactivity insertion rate.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-07 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

With one intermediate range neutron flux channel inoperable when the plant is above P-6 but below 10% RTP (the P-10 interlock setpoint), current ACTION Statement [3.b] is revised to establish a 24 hour Completion Time for channel restoration or changing the power level to either below P-6 or above P-10. Although this change is less restrictive since a power increase is an allowed option, the ACTION Statement would ensure protection by entering the range of the four power range neutron flux channels. The Applicability for Functional Unit 5 is revised such that current ACTION Statement [3.a] can be deleted.

With both intermediate range neutron flux channels inoperable when the plant is above P-6 but below P-10, LCO 3.0.3 would be entered under the current TS and the plant would have to be in MODE 3 within 7 hours. New ACTION Statement [3.1] requires immediate suspension of operations involving positive reactivity additions and a power reduction below P-6 within 2 hours.

Comment: Explain how the 2 hour and 24 hour repair times provide protection and ensure the low probability of occurrence of a reactivity transient that would require the need for an IR flux trip. Explain why the ITS actions will provide for continued safe operation of the plant. This change references TSTF-135 which is not approved by the staff. Provide discussion to explain the relation of this change to proposed TSTF-135 changes. Note that not all proposed TSTF-135 changes are acceptable to the staff for implementation in ITS.

FLOG RESPONSE: DOC 1-07-LS-3 and NSHC LS-3 have been revised to clarify the suspect wording. This DOC is unrelated to TSTF-135, discussed under Comment Number 3-LS-GEN. The 24 hour Completion Time is taken from TSTF-246. See the response to Comment Number Q 3.3-107 for additional discussion of TSTF-246.

ATTACHED PAGES:

Encl. 3A	3
Encl. 4	21

CHANGE NUMBER	NSHC	DESCRIPTION
01-07	LS3	With one intermediate range neutron flux channel inoperable, current ACTION Statement [3.a] applies below the P-6 interlock. For those times that the plant is above P-6 but below 10% RTP (the P-10 interlock setpoint), current ACTION Statement [3.b] applies. ACTION Statement [3.b] is revised to establish a 24 hour Completion Time for channel restoration or changing the power level to either below P-6 or above P-10. The intermediate range neutron flux channels provide protection between these power levels and the APPLICABLE MODES have been revised to indicate this via new footnote [(d)]. With the revised APPLICABILITY, current ACTION Statement [3.a] is deleted since it is outside the new APPLICABILITY. The source range neutron flux detectors provide protection below P-6 and the power range neutron flux detectors provide protection above P-10. The addition of the 24 hour Completion Time (CTS has no Completion Time) limits the window of operation during which the intermediate range neutron flux trip function provides protection in a 1 of 1 logic configuration ~~and ensures the~~ . Further, there is a low probability of occurrence of a reactivity transient during this time period that would require an intermediate range flux trip. Although this change is less restrictive since a power increase is an allowed option, the ACTION Statement would ensure protection by entering the range of the four power range neutron flux channels. Q 1-07
		With both intermediate range neutron flux channels inoperable in MODE 1 (below P-10) and MODE 2 (above P-6), LCO 3.0.3 would be entered under the CTS and the plant would have to be in MODE 3 within 7 hours. With both intermediate channels inoperable, new ACTION Statement [3.1] requires immediate suspension of operations involving positive reactivity additions and a power reduction below P-6 within 2 hours. New ACTION Statement [3.1] is less restrictive since a reduction to MODE 3 would no longer be required; however, the CTS are overly conservative in this area. Below P-6 the source range channels provide protection; therefore, the required ACTION for both intermediate range channels inoperable should be to exit plant conditions where this trip function provides protection. New ACTION Statement [3.1] will preclude any power level increase and require a controlled power reduction to less than P-6 where the source range channels provide protection. The 2 hour Completion Time ensures the low probability of occurrence of an event during this period that may require the protection afforded by the intermediate range neutron flux trip. These actions actually provide a more timely and appropriate redress to the condition than entering LCO 3.0.3.
		These changes are consistent with NUREG-1431.

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS3
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

With one intermediate range neutron flux channel inoperable, current ACTION Statement [3.a] applies below the P-6 interlock. For those times that the plant is above P-6 but below 10% RTP (the P-10 interlock setpoint), current ACTION Statement [3.b] applies. ACTION Statement [3.b] is revised to establish a 24 hour Completion Time for channel restoration or changing the power level to either below P-6 or above P-10. The intermediate range neutron flux channels provide protection between these power levels and the APPLICABLE MODES have been revised accordingly. The source range neutron flux detectors provide protection below P-6 and the power range neutron flux detectors provide protection above P-10. The addition of the 24 hour Completion Time (current TS has no Completion Time) limits the window of operation during which the intermediate range neutron flux trip function provides protection in a 1 of 1 logic configuration ~~and ensures the~~ low probability of occurrence of a reactivity transient occurring during this time period that would require an intermediate range flux trip. Although this change is less restrictive since a power increase is an allowed option, the ACTION Statement would ensure protection by entering the range of the four power range neutron flux channels.

. Further, there is a

Q 1-07

With both intermediate range neutron flux channels inoperable in MODE 1 (below P-10) and MODE 2 (above P-6), LCO 3.0.3 would be entered under the current TS and the plant would have to be in MODE 3 within 7 hours. With both intermediate channels inoperable, new ACTION Statement [3.1] requires immediate suspension of operations involving positive reactivity additions and a power reduction below P-6 within 2 hours. New ACTION Statement [3.1] is less restrictive since a reduction to MODE 3 would no longer be required; however, the current TS are overly conservative in this area. Below P-6 the source range channels provide protection; therefore, the required action for both intermediate range channels inoperable should be to exit plant conditions where this trip function provides protection. New ACTION Statement [3.1] will preclude any power level increase and require a controlled power reduction to less than P-6 where the source range channels provide protection. The 2 hour Completion Time ensures the low probability of occurrence of an event during this period that may require the protection afforded by the intermediate range neutron flux trip. These actions actually provide a more timely and appropriate redress to the condition than entering LCO 3.0.3.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards, as applied to the relaxations applicable to the intermediate range neutron flux trip function:

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-13 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

[ACTION Statement [9] is revised to note that the 2 hour [ ] reactor trip breaker bypass allowance for [ ] breaker surveillance testing can also be used for maintenance.] ACTION Statement [9] is [also] revised to require restoration of an inoperable RTB within 1 hour or the plant must be in HOT STANDBY within the next 6 hours. This is less restrictive since an additional hour is provided for the transition to MODE 3.

Comment: Pending TSTF review - this DOC discusses adding a 2-hour AOT for instrument maintenance. Use of maintenance AOTs have not been approved by the staff. TSTF-168 for maintenance bypass is not approved by the staff. Revise the ITS to adopt the STS note to Action R for reactor trip breakers in Modes 1 and 2.

Based on 8/14/98 meeting this comment will be responded to as part of the JFD 3.3-43 comment response.

CTS requires 2 channels of RTBs to be operable. ITS requires 2 trains of RTBs to be operable. The ITS action R Notes 1 and 2 address both channel and train inoperabilities. Provide DOC discussion for each CTS change.

FLOG RESPONSE: See the responses to Comment Numbers Q 3.3-03, Q 3.3-43, and Q 3.3-117. Although the ITS will use the "RTB train" wording, the words "channel" and "train" mean the same thing when there are only two separate entities involved. This wording is an artifact of the last STS, NUREG-0452.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-14 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

In the ISTS Table 3.3.1-1, Function 20, the reactor trip breaker (RTB) undervoltage and shunt trip mechanisms are separate from the RTB Functional Unit. The current TS have been revised to reflect these requirements.

New [footnote (d) has] been added to the RTB Functional Unit to note that the same OPERABILITY requirements and ACTIONS apply to a bypass breaker if it is racked in and closed for bypassing an RTB. The bypass breakers were already handled in this fashion. ACTION Statement [12] in current TS Table 3.3-1 has been revised accordingly.

Comment: Adopting a current practice as a TS is not an administrative change to current TS. Provide a separate DOC for the footnote change which is consistent with the "change" in current TS requirements that results from adopting the NUREG STS.

The staff presumes that the CTS were retyped and that the CTS markup represents a comparison between the retype and the additions made to the CTS to adopt the iSTS. The staff continues to find mistakes in the retype, changes that are neither redlined or shown in strike out but which are obviously not consistent with the CTS. For example, T3.3-1 Function 19 (RTBs) the applicability in Mode 5 has footnote "k" whereas the other applicable Modes have footnote "a." Footnote "k" does not exist.

Based on 8/14/98 meeting Rev 0 is accepted and this comment does not need a response.

CTS action [12] contains a requirement not to bypass the breaker while one of the diverse trip features is inoperable. This prohibition is not included in the actions for Condition U. Neither the CTS markup nor the DOC cover this deletion.

FLOG RESPONSE: DOC 1-14-A has been revised to demonstrate that this change does not just formalize "current practice," rather it is consistent with the current TS. The CTS ACTION statement allows the RTB to be bypassed for the time required to restore an inoperable trip attachment to OPERABLE status. This is covered by ITS 3.3.1, Condition R, Note 2. See also the response to Comment Number Q 3.3-117.

ATTACHED PAGES:

Encl. 3A 5

CHANGE NUMBER	NSHC	DESCRIPTION
01-13	LS6	[ACTION Statement [10] is revised to note that the 2 hour [train and] reactor trip breaker bypass allowance for [train or] breaker surveillance testing can also be used for maintenance. This change does not impact the conclusions of WCAP-10271-P-A, Supplement 2, Rev. 1 since there is no change to the bypass time. This change is consistent with Traveler TSTF-168.] ACTION Statement [10] is [also] revised to require restoration of an inoperable RTB within 1 hour or the plant must be in HOT STANDBY within the next 6 hours, consistent with NUREG-1431. This is less restrictive since an additional hour is provided for the transition to MODE 3.
01-14	A	In the ISTS Table 3.3.1-1, Function 20, the Reactor Trip Breaker (RTB) Undervoltage and Shunt Trip Mechanisms are separate from the RTB Functional Unit. The CTS have been revised to reflect these requirements. DC 3.3-Ed New [footnote (k ~~b~~) has] been added to the RTB Functional Unit to note that the same OPERABILITY requirements and ACTIONS apply to a bypass breaker if it is racked in and closed for bypassing an RTB. The bypass breakers were already handled in this fashion. ACTION [12] in CTS Table 3.3-1 has been revised accordingly. INSERT 1-14-A Q 1-14
01-15	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-16	LS40	The requirement to verify the setpoint during the quarterly TADOT for RCP Underfrequency [and RCP Undervoltage] is deleted, consistent with NUREG-1431.
01-17	A	Consistent with NUREG-1431, LCO 3.3.1 Required ACTION D Note, CTS Table 3.3-1 ACTION Statement 2c ~~and new ACTION Statement 2.1 have~~ has been modified by a Note that allows the bypass to be used for surveillance testing or setpoint adjustment. Setpoint adjustment can be performed at power and may be required by other Technical Specifications. The reason for placing the channel in bypass does not affect the impact of having the channel in bypass. Q 3.3-40

Insert for Q 1-14

Enclosure 3A page 5
Insert 1-14

This change is administrative in nature since the current TS already specifies operability and surveillance requirements on the diverse trip attachments and the bypass breakers (when racked in and closed), as evidenced by CTS Table 3.3-1 ACTIONS [11 and 12] for Functional Unit [20], [Table 3.3-1 ACTION 26 for Functional Unit 21], Table 4.3-1 Note [(14)] for Functional Unit 1, Table 4.3-1 Notes [(7) and (10)] for Functional Unit [21], and Table 4.3-1 Notes [(14) and (16)] for Functional Unit [24].

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-16 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

The requirement to verify the setpoint during the quarterly TADOT for RCP Underfrequency [and RCP Undervoltage] is deleted.

Comment: Based on 8/14/98 meeting a 2 LS GEN response will be provided.

The extension of the allowed outage time for one CRVS channel inoperable from 1 hour [sic] to 7 days is justified based upon the fact that the AOT for a single inoperable mechanical train is 7 days. The bases, however, indicate that the two channels are used in a one-out-of-two logic to start both CRVS trains. A single inoperable instrumentation channel, therefore, degrades the operability of both mechanical trains. This is a different condition than inoperability of a single inoperable mechanical train thus the justification provided for the 7 day AOT is not germane.

FLOG RESPONSE: LS-40 is revised in the response to Comment Number Q 2-LS GEN. The remainder of the comment does not apply to this DOC, as discussed in Reference 5. It applies to DOCs 2-16-LS-12 and 3-05-LS-14. See the responses to the comments on those DOCs.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-18 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

The current TS requirement to reduce the power range neutron flux trip setpoints in the event a power range flux channel is inoperable is deleted. The time to reduce power below 75% RTP is increased from 4 hours to 12 hours and, if actions are not completed as required, the unit must be in MODE 3 in 12 hours. (See also CN 1-53-A.)

Comment: (1) The CTS requires QPTR to be monitored per SR 4.2.4.2 if one channel is inoperable and power is not reduced to less than 75%. The markup relaxes this requirement to only require QPTR monitoring if the input to the QPTR function is inoperable. This change has not been justified. The justification provided for not reducing power presumes that the QPTR is being surveilled. It is likely that what is intended here is that QPTR be surveilled in all cases where power is not reduced below 75%, however if the input to the QPTR monitoring function is OPERABLE then that monitoring may be accomplished via that function using the power range inputs. If the QPTR input is inoperable then QPTR must be monitored per SR 4.2.4.2. The ITS actions should reflect the NUREG-1431 STS and the CTS changes should be discussed.

(2) The CTS markup eliminates the requirement to change the power range trip setpoint after power is reduced. The DOC justifies this on the basis that the loss of a channel does not indicate an abnormal flux tilt. The proposed change also places the power limitation under administrative control rather than enforcing it by changing trip setpoints. The basis for this change should be discussed. Provide a technical basis for changing the power reduction completion time from 4 to 12 hours.

(3) The CTS requires resetting the power range neutron flux trip setpoint to 85% of rated thermal power on loss of one channel of power range neutron flux - high setpoint. The ITS markup requires restricting power to 75% of rated thermal power. No justification is provided for change in power level or from change from "trip setpoint at 85% power" to "restriction to 75% power".

{CP} Neither the DOC nor the NSHC provide specific justification for extending the AOT for two inoperable channels by 11 hours (or by 3 hours when a tie breaker is closed).

FLOG RESPONSE: Comment (1) is addressed in the response to Comment Number Q 3.3-120.

NSHC LS-7 has been revised to address comments (2) and (3).

The last paragraph is written against the wrong DOC as discussed in Reference 5; see the response to Comment Number Q 2-18-LS-31.

[illegible]

ATTACHED PAGES:

Encl. 4 27

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS7
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

In current ACTION Statement [2c], the requirement to reduce the power range neutron flux high trip setpoint is deleted. The loss of one power range neutron flux channel does not impact the reliability of the reactor trip system because the channel is required to be placed in trip. With an NIS power range channel inoperable, tilt monitoring for a portion of the reactor core becomes degraded. To address the impact on measuring QPTR, the QPTR TS provides conditional notes to the surveillances that verify QPTR. Although the loss of one power range channel may affect the ability to measure QPTR, there is no basis for reducing the power range high flux trip setpoint and increasing the potential for an inadvertent reactor trip. The existing surveillance requirements in the QPTR TS provide adequate remedial measures (increased surveillance frequency and/or different method for monitoring QPTR) when an inoperable power range channel affects the input to QPTR.
INSERT LS-7 (a) Q 1-18

In addition, monitoring of QPTR every 12 hours will no longer be required if the input to the QPTR from the power range neutron flux channels remains OPERABLE. A consistent completion time of 12 hours is imposed on either of the three required actions, i.e. power derate, QPTR surveillance, or shutdown to MODE 3. INSERT LS-7 (b) Q 1-18

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the ACTION associated with an inoperable power range neutron flux channel. The inoperable channel is placed in the tripped condition, therefore the reliability of the RTS is unaffected. A consistent completion time of 12 hours is imposed on either of the three required actions, i.e. power derate, QPTR surveillance, or shutdown to MODE 3. While this represents a relaxation for the power derate completion time, currently 4 hours, this time is not an assumption in any accident analysis. For the purposes of the FSAR Chapter 15 accident analyses, placing the inoperable channel in trip within 6 hours, which is unchanged, satisfies the analysis assumptions on RTS availability. This relaxation is contrasted by the more restrictive change that

[illegible]

[illegible]

Inserts for Q 1-18

Enclosure 4 page 27

INSERT LS-7 (a)

There is no accident analysis basis for a setpoint reduction to 85% RTP with one inoperable channel in trip. All accident analyses crediting power range neutron flux high are based on meeting a safety analysis limit of 118% RTP (109% RTP trip setpoint plus instrument errors). Reducing the power level to ≤ 75% RTP prevents operation of the core with radial power distributions beyond the design limits at a power level where DNB conditions may exist. Placing the current TS Action Statement's option for a power reduction under administrative control, rather than enforcing it by a reduced trip setpoint, does not render the requirement any less valid. The vast majority of Technical Specification Action requirements are enforced administratively, not by equipment changes.

INSERT LS-7 (b)

The relaxation from 4 hours to 12 hours to reduce power below 75% RTP is acceptable based on this being a more controlled evolution to take load off at a reduced rate when it is known the power range monitoring capability is degraded. This is a reasonable time to reduce power given that QPTR changes relatively slowly at full power, and the action to place the inoperable channel in trip within 6 hours already addresses the RTS unavailability concern. This ensures the power reduction is performed in an orderly manner and without challenging plant systems.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-23 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

This change adds notes to the RTS and ESFAS SR Tables 4.3-1 and 4.3-2 that explicitly require the 18-month calibrations to include verifications of affected time constants where applicable.

Comment: Provide CTS Table 4.3-2 and Note (5) for staff review of proposed changes. The A-D0C discusses additional requirements and should be discussed as an M-DOC.

The A-D0C discusses the addition of surveillance requirements to include time constants and should be evaluated as an M-DOC.

Amendments 126/124 include 24 month surveillances for CTS function 1.b,11.c,1.d,1 e, 2.c, 3.a.2, 3.b.2, 3.b.3, 3.c.1, 3.c.4,4.c, 4.d, 4.e, 5.a, 5.b,6.b, 6.c.1, 6.c.26.d, and 8a which are shown as 18 months in ITS SRs 3.3.2.9 and 3.3.6.7. Provide CTS/ITS markup revisions.

{WC, CW, DC, CP} CTS TADOT surveillances are modified in the ITS with a note that "verification of setpoint not required." This change is not evaluated. For CW this change is also not identified in the CTS markup. Provide justification for all proposed changes to CTS as they are reflected in the ITS.

FLOG RESPONSE: The first and second comments were discussed with NRC staff during a meeting on August 14, 1998, whereupon NRC agreed with the FLOG contention that, since this represented current plant practice, the DOC was indeed administrative in nature. NRC concurred in the meeting minutes (Reference 5 to the cover letter).

In response to the third comment, the changes to the DCPP CTS and ITS associated with Amendments 126/124 are provided via Additional Information Number DC-ALL-005. Please note that the Functions listed in the comment include Functions revised via LA 122/120 and LA 123/121 as well. Not all of the Functions revised by these LAs are listed. Additional Information Number DC-ALL-005 includes all of the revised Functions and the revised SRs 3.3.2.9 and 3.3.6.7 as well as other affected SRs.

In response to the last comment, new DOC 1-64-A has been generated as well as the associated CTS mark-ups.

ATTACHED PAGES:

Encl. 2	3/4 3-10, 3/4 3-32, 3/4 3-33, 3/4 3-34, 3/4 3-35a
Encl. 3A	14
Encl. 3B	14 of 31

4.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~
1. Manual Reactor Trip	N.A.	N.A.	N.A.	~~R(14)~~ (9) R24	N.A.	~~1, 2, 3*, 4*, 5*~~
2. Power Range, Neutron Flux a. High Setpoint	S	D(2, 4), ~~M(3, 4)~~, ~~Q(4, 6)~~, R(4, 5, 22)	Q	N.A.	N.A.	~~1, 2~~
b. Low Setpoint	S	R(4, 5, 22)	S/U(1, 20) Q(19, 20)	N.A.	N.A.	~~1###, 2~~
3. Power Range, Neutron Flux, High Positive Rate	N.A.	R(4, 5, 22)	Q	N.A.	N.A.	~~1, 2~~
4. Power Range, Neutron Flux, High Negative Rate	N.A.	R(4, 5, 22)	Q	N.A.	N.A.	~~1, 2~~
5. Intermediate Range, Neutron Flux	S	R(4, 5)	S/U(1, 20) Q(19, 20)	N.A.	N.A.	~~1###, 2~~
6. Source Range, Neutron Flux	S	R(4, 5)	S/U(1, 8), Q(9, 19)	N.A.	N.A.	~~2##, 3, 4, 5~~
7. Overtemperature ΔT	S	R(22) M(3, 4) Q(4, 6)	Q	N.A.	N.A.	~~1, 2~~
8. Overpower ΔT	S	R(22)	Q	N.A.	N.A.	~~1, 2~~
9. Pressurizer Pressure-Low	S	R (22)	Q	N.A.	N.A.	~~1~~
10. Pressurizer Pressure-High	S	R (22)	Q	N.A.	N.A.	~~1, 2~~
11. Pressurizer Water Level-High	S	R (22)	Q	N.A.	N.A.	~~1~~
12. Reactor Coolant Flow-Low	S	R (22)	Q	N.A.	N.A.	~~1~~

24 24 24 24 24 24 20

Q1-23 1-64-A

DC ALL-001

DC ALL-005

DC ALL-002

DC AL-005

DC ALL-002

DC 3.3-004

DC ALL-005

DC ALL-005

DC ALL-005

01-44-A
01-32-LG
01-21-A
01-23-A
01-22-M
01-23-A
01-39-A
01-23-A
01-39-A
01-23-A
01-22-M
01-26-LG
~~01-28-A~~
01-27-LS10
01-23-A
01-21-A
01-23-A
01-23-A
01-23-A
01-23-A
01-23-A

~~01-68-LS54~~
~~01-69-M~~
DC 3.3-004

TABLE 4.3-2

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALI-BRATION	CHANNEL OPERA-TIONAL TEST	TRIP ACTUATING DEVICE OPERA-TIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~
1. Safety Injection, ~~(Reactor Trip Feedwater Isolation, Start Diesel Generators, Containment Fan Cooler Units, and Component Cooling Water)~~				DC ALL-001				02-19-LG Q 1-23
a. Manual Initiation	N.A.	N.A.	N.A.	R 24 (9)	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~ DC ALL-005
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-002
4 c. Containment Pressure-High	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3,~~ 01-23-A DC ALL-005
d. Pressurizer Pressure-Low	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3~~ 01-23-A
e. DELETED								DC ALL-002
f. Steam Line Pressure-Low	S 2	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3~~ 01-23-A
2. Containment Spray ~~(coincident with SI signal)~~				DC ALL-001				Q 1-23 02-28-LG
4 a. Manual Initiation	N.A.	N.A.	N.A.	R 24 (9)	N.A.	N.A.	N.A.	~~1, 2, 3,~~ DC ALL-002
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
c. Containment Pressure-High-High ~~1, 2, 3, 4**~~	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	DC ALL-002 01-23-A DC ALL-005

~~* These changes from License Amendments 84 & 83.~~

~~** These changes from License Amendments 89 & 88.~~

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALI-BRATION	CHANNEL OPERA-TIONAL TEST	TRIP ACTUATING DEVICE OPERA-TIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~
3. Containment Isolation								Q1-23
a. Phase "A" Isolation				DC ALL-001				
1) Manual	N.A.	N.A.	N.A.	R 24 (9)	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							Q1-23
b. Phase "B" Isolation				DC ALL-001				
1) Manual	N.A.	N.A.	N.A.	R 24 (9)	~~N.A.~~	N.A.	N.A.	~~1, 2, 3, 4~~
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
3) Containment Pressure-High-High	S	24 R(6)	Q	N.A.	N.A.	N.A.	N.A.	DC ALL-005 ~~1, 2, 3, 4~~ 01-23-A
c. Containment Ventilation Isolation								02-~~20-A~~ 2 05-A Q 2-05 (3.3)
1) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
2) Deleted								
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
4) Containment Ventilation Exhaust Radiation-High ~~(RM-44A and 44B)~~	S	24 R(6)	Q(2)	N.A.	N.A.	N.A.	N.A.	DC ALL-005 ~~1, 2, 3, 4~~

Q 3.3-79 02-51-LG
Q 3.3-2 01-23-A
02-35-A

TABLE [illegible] (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

SURVEILLANCE REQUIREMENTS

DC ALL-002

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR ~~WHICH SURVEILLANCE IS REQUIRED~~
4. Steam Line Isolation								
a. Manual	N.A.	N.A.	N.A.	R 24 (9) DC ALL-001	N.A.	N.A.	N.A.	~~1, 2, 3~~ Q1-23
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3~~ DC ALL-005
c. Containment Pressure-High-High (3)	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2,~~ DC ALL-002 01-23-A
d. Steam Line Pressure-Low	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2,~~ 3 DC ALL-005 01-23-A
e. Negative Steam Line Pressure Rate-High	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	3(3) Remove strikeout DC 3.3-Ed 01-23-A
5. Turbine Trip and Feedwater Isolation								
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2~~ DC ALL-005
b. Steam Generator Water Level-High-High	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2~~ DC ALL-005 01-23-A
6. Auxiliary Feedwater								
a. Manual	N.A.	N.A.	N.A.	R(9)	N.A.	N.A.	N.A.	~~1, 2, 3~~ Q1-23
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3~~ DC ALL-005
c. Steam Generator Water Level-Low-Low								Remove strike out DC 3.3-Ed
1) Steam Generator Water Level-Low-Low	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2,~~ 3(5) 01-23-A DC ALL-002
2) RCS Loop ΔT Equivalent to Power	N.A.	R(6) 24	Q	N.A	N.A	N.A	N.A	~~1, 2~~ 01-23-A DC ALL-005

464.1 seconds.
(6) Includes verification of time constants where applicable.
(new)

(9) Setpoint verification is not required

01-23-A

Q1-23

3/4 3-35a

CHANGE NUMBER	NSHC	DESCRIPTION
01-57	LG	CTS Table 3.3-1 Functional Units [12.a and 12.b] are combined per Traveler TSTF-169. The Required Channels, ACTION Statement, and Surveillance Requirements are the same for both Functional Units. The only difference between the two is the APPLICABILITY which could lead to entry into ACTION Statement 6 for Functional Unit [12.a], followed by a power reduction below P-8 exiting the APPLICABILITY and required ACTIONs for that Functional Unit, and subsequent re-entry into ACTION Statement 6 for Functional Unit [12.b]. This would involve an improper cumulative AOT of 12 hours before tripping an inoperable channel, beyond that evaluated in WCAP-10271 and its Supplements. The relationships between these Functional Units and permissives P-7 and P-8 are moved to the ITS 3.3.1 Bases.
01-58	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-59	LS46	~~Not Used.~~ INSERT 1-59-LS59 Q 1-51
01-60		Not Used.
01-61	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-01	A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.
02-02	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-04	LG	The requirements stipulated in ACTIONS a and b are moved to ITS Table 3.3.2-1, with explicit direction contained in the ITS ACTIONS Bases.
02-05	M	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 2-05 Q 2-05 (3.3)
02-06	LS33	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-62	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-65	A	

INSERT 1-63-A

INSERT 1-64-A

INSERT 1-66-LS45

INSERT 1-67-M

INSERT 1-68-LS54

INSERT 1-69-M

Q 1-A GEN

Q 1-23

Q 3.3 J

Q 3.3-46

DC 3.3-004

DC 3.3-004

[illegible]

Insert for Q 1-23

Enclosure 3A page 14
Insert 1-64-A

1-64 A The refueling interval TADOTs for Functional Units [1 and 18] in CTS Table 4.3-1 have been revised to include existing Note [9, "Setpoint verification is not required."] Likewise, refueling interval TADOTs for Functional Units [1.a, 2.a, 3.a.1), 3.b.1), 4.a, and 6.a] in CTS Table 4.3-2 have been revised to add a new Note [9], "Verification of setpoint not required." This change is administrative in nature since the subject Functional Units have no setpoints associated with them. This change does not affect the operating limits or manner in which the plant is operated. There are no changes to current plant practices for the performance of these TADOTs since there are no setpoints to verify for these Functional Units. This change is strictly an acknowledgment that the corresponding ITS SRs 3.3.1.14, 3.3.2.8, and 3.3.2.11 have an explicit Note to this effect.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-58 A	The proposed change would allow Reactor Trip System and ESFAS sensor response time testing to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements," or other similar methodologies. This change is consistent with traveler TSTF-111, which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing.	No, see CN 1-03-LS1.	Yes	No, see CN 1-03-LS1.	No, see CN 1-03-LS1.
01-59	~~Not Used.~~ INSERT 1-59-LS46(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 1-51
01-60	Not Used.	N/A	N/A	N/A	N/A
01-61 M	If the requirements of current CPSES ACTION Statement 6 are not met, LCO 3.0.3 would be entered. In accordance with the ISTS, this ACTION Statement is revised to state that; if the ACTION requirements are not met, the plant must be taken below the P-7 interlock setpoint within the next 6 hours.	No, see CN-01-19-LS8.	Yes	No, see CN-01-19-LS8.	No, see CN-01-19-LS8.
02-01 A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.	Yes	Yes	Yes	Yes
02-02 A	CTS ACTION b.1, Equation 2.2-1, and the values for Total Allowance (TA), Z, and Sensor Error (S) are deleted, consistent with NUREG-1431 Rev. 1.	No, not in CTS.	No, not in CTS.	Yes	Yes
02-03 LG	The Engineered Safety Features Actuation System Instrumentation Trip Setpoints are moved to a licensee controlled document.	No, retained in ITS.	Yes, moved to Bases.	Yes, moved to ITS 3.3.2 Bases.	Yes, moved to ITS 3.3.2 Bases.

INSERT 1-63-A(a)
INSERT 1-64-A(a)
INSERT 1-66-LS45(a)
INSERT 1-67-M(a)

INSERT 1-68-LS54(a)
INSERT 1-69-M(a)

Q 1-AGEN
Q 1-23
Q 3.3.j
Q 3.3-46
DC 3.3-004
DC 3.3-004

[illegible]

Insert for Q 1-23

Enclosure 3B page 14 of 31
Insert 1-64-A (a)

1-64-A	Notes are added to Tables 4.3-1 and 4.3-2 to exclude setpoint verifications during TADOTs on Functional Units that do not have setpoints associated with them.	Yes	Yes	Yes	Yes

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-25 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

NUREG-1431, Rev. 1 incorporates the current TS 4.0.4 exception from Table 4.3-1 Notes (2), (3), and (6) into the ITS SR 3.3.1.2, 3.3.1.3, and 3.3.1.6 surveillance frequencies.

Comment: No justification has been provided for changing the power level in CTS Table 4.3-1 note 3 from 15% to 50%. For note (2) the addition of the time period for completion of the CHANNEL CALIBRATION does not provide clarification to this surveillance as this is a daily surveillance and if not performed within 24 hours, this functional unit would be declared inoperable. Furthermore, this change is categorized as an administrative change when, in fact, the change results in less restrictive TS requirements.

FLOG RESPONSE: The 50% RTP level establishes the lower safety analysis boundary for the AFD and QPTR LCOs. Below 50% RTP, there are no corrective actions required for off-normal power distributions. DOC 1-25-A has been revised and changed to an "M" DOC, since the new limitations are more restrictive than the current TS with its SR 4.0.4 exception.

For DCPP, the CTS specifies the conditions and time requirements for performance of the surveillance, thus the exception from CTS 4.0.4 is not required in the ITS. Note (2) specifies >15% RTP and a completion time of <24 hours or before increasing power above 30% RTP.

ATTACHED PAGES:

Encl. 2	3/4 3-13
Encl. 3A	9
Encl. 3B	7 of 31

TABLE 4.3-1 (Continued)

TABLE NOTATIONS

* - When ~~the Reactor Trip System breakers are closed and~~ the Control Rod Drive System is capable of rod withdrawal or all rods not fully inserted. 01-55-LS39

- Below P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.

- Below P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.

(1) - If not performed in previous ~~31~~ 92 days. 01-24-LS9

(1a) - If not performed in previous 31 days. 01-24-LS9

(2) - Heat balance only, above 15% of RATED THERMAL POWER. During startup in MODE 1 above 15% of RATED THERMAL POWER, the required heat balance shall be performed prior to exceeding 30% of RATED THERMAL POWER, or within 24 hours, whichever occurs first. Adjust channel if absolute difference greater than 2%. ~~The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.~~ 01-25-~~A~~ M Q1-25

(3) - Compare incore to excore axial flux difference ~~above~~ within 24 hours after Thermal Power is greater that or equal to ~~15~~50% of RATED THERMAL POWER and at least once per 31 Effective Full Power days. Re-calibrate if the absolute difference is greater than or equal to 3%. ~~The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.~~ 01-25-~~A~~ M Q1-25

(4) - Neutron detectors may be excluded from CHANNEL CALIBRATION.

(5) - ~~Detector plateau curves shall be obtained and evaluated for the source range neutron flux channels. For the Intermediate Range and Power Range Neutron Flux channels a test shall be performed that shows allowed variances of detector voltage do not effect detector operation.~~ For the Intermediate Range and Power Range Neutron Flux Channels the provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1. 01-26-LG

(6) - Incore - Excore Calibration, ~~above~~ within 24 hours after Thermal Power is ≥ 75% of RATED THERMAL POWER and at least once per 92 Effective Full Power days. ~~The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.~~ 01-25-~~A~~ M Q1-25

(7) - Each train shall be tested at least every ~~62~~ 31 days on a STAGGERED TEST BASIS.

~~(8) - Quarterly Surveillance in MODES 3*, 4* and 5* performed quarterly and prior to startup shall also include verification that permissives P-6 and P-10 are in their required state for existing plant conditions by observation of the permissive annunciator window.~~ ~~01-28-A~~ 01-68-LS54 DC 3.3-004

(9) - Setpoint verification is not applicable.

~~(10) - The TRIP ACTUATING DEVICE OPERATIONAL TEST shall separately verify the OPERABILITY of the undervoltage and shunt trip attachments of the Reactor Trip Breakers.~~ 01-32-LG

(11) - Deleted

(12) - Deleted

(13) - Deleted

CHANGE NUMBER	NSHC	DESCRIPTION
01-25	~~A~~ M	NUREG-1431 incorporates the CTS 4.0.4 exception for the surveillances covered by CTS Table 4.3-1 Notes (2), (3), and (6) into the ISTS SR 3.3.1.2, 3.3.1.3, and 3.3.1.6 surveillance frequencies. In the CTS, these surveillances have no time requirements [except for Note (2)]. In general, the combined effect of CTS 4.0.3 and CTS 4.0.4 would allow [24 hours] for the completion of a surveillance if it were not performed upon entry into the specified MODE or other condition for that surveillance. CTS 4.0.3 allows [24 hours] for the completion of a surveillance once the appropriate MODE or condition is established. In the improved TS, the TS 4.0.4 exceptions are incorporated as a NOTE in each affected surveillance. In converting to the NUREG-1431 format, ITS SR 3.3.1.2, SR 3.3.1.3, and SR 3.3.1.6 require these surveillances to be performed within [24] hours after THERMAL POWER is greater than or equal to 15% RTP (CTS Note (2) for the comparison of NIS power to calorimetric power), within [24] hours after 50% RTP (CTS Note (3) for the comparison of excore Axial Flux Difference (AFD) to incore AFD), and [after achieving equilibrium conditions (per CTS 4.2.2.2.d.1) with THERMAL POWER greater than or equal to 75%] RTP (CTS Note (6) for the incore-excore calibration), respectively. Since these surveillances are conditional on THERMAL POWER levels greater than the MODE 2 to MODE 1 breakpoint, there is no need to retain the CTS 4.0.4 exception, as discussed in ITS Section 1.4, as long as the ITS Surveillance Notes allow the plant to reach conditions appropriate for the performance of the surveillances. Q 1-25

The power level at which the monthly surveillance is performed to compare incore vs. excore AFD, and adjustment of the NIS as required by Note (3) of CTS Table 4.3-1, is changed from ≥ 15% RTP to ≥ 50% RTP. This change is also precipitated by the conversion to the ITS format which replaces the CTS 4.0.4 exception with a finite time interval after exceeding a specified power level. With the deletion of the CTS 4.0.4 exception, the specified power level in ITS SR 3.3.1.3 should reflect the applicable safety analysis basis consistent with the [APPLICABILITY and] Required ACTIONs of ITS LCO 3.2.3 (AFD) and LCO 3.2.4 (QPTR). As with the changes discussed above, there is no need to retain the CTS 4.0.4 exception as long as the ITS Surveillance Notes allow the plant to reach conditions appropriate for the performance of the surveillances.

These changes are ~~considered administrative~~ More restrictive in nature ~~in that they simply reflect the incorporation of~~ since the CTS 4.0.4 exceptions are not limited ~~into the improved TS.~~ Q 1-25

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-23 A	This change adds notes to the RTS and ESFAS SR Tables 4.3-1 and 4.3-2 that explicitly require the ~~48-month~~ calibrations to include verifications of affected time constants where applicable.	Yes	Yes	Yes	Yes DC 3.3-E1
01-24 LS9	The COTs for the Power Range Neutron Flux - Low setpoint, the Intermediate Range Neutron Flux and the Source Range Neutron Flux trip functions will no longer be required if performed within the previous 92 days (extended from 31 days). Note [1a] is added for use with the turbine trip functions, for which no such change was provided.	Yes	Yes	Yes	Yes
01-25 ~~A~~ M	NUREG-1431 Rev. 1 incorporates the CTS 4.0.4 exception from Table 4.3-1 Notes (2), (3), and (6) into the ITS SR 3.3.1.2, 3.3.1.3, and 3.3.1.6 surveillance frequencies.	Yes	Yes	Yes	Yes Q 1-25
01-26 LG	This change moves detail concerning NIS detector operation and testing to the BASES for ITS SR 3.3.1.11.	Yes	Yes	Yes	Yes
01-27 LS10	Surveillances on the Source Range Neutron Flux trip function are reorganized to reflect plant status in accordance with NUREG-1431. New Note [(19)] requires that the quarterly COT be performed within 4 hours after reducing power below the respective source range instrumentation Applicabilities, if not performed within the previous [92] days. Since the COT is valid for [92] days, there is no need to repeat it if one has been performed within the prior [quarter]. Since the CTS has no Specification 4.0.4 exception, this 4 hour allowance is less restrictive.	Yes	Yes	Yes	Yes

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-35 **APPLICABILITY:** DC

REQUEST:

This change moves response time limit tables to the updated FSAR per Generic Letter 93-08 and NUREG-1431, Rev. 1.

Comment: There is an apparent inconsistency within the CTS. Table 3.3-5 shows a response time requirement for reactor trip on the Containment Pressure High, Pressurizers Pressure Low, and Steam LIne Pressure Low functions from the ESFAS. RTS does not itself have a containment pressure or steam line pressure trip and the low pressurizer pressure trip in RTS has a different setpoint. Therefore, it appears that this requirement applies to initiation of reactor trip via RTS function 17, SI input from the ESFAS. CTS 3.3.1, however, show no response time requirement for this function and none is included in the ITS. How has this apparent conflict been resolved in the development of the ITS?

FLOG RESPONSE: The cited SI (ECCS) Reactor Trips are the inputs to Functional Unit 18 (SI Input from ESF). As such, the response times listed in CTS Table 3.3-5 include the response time from initiation of SI until the reactor trips, rather than just the response time from SI signal initiation to reactor trip initiation. Thus, there is no specific response time for the Reactor Trip Function initiated from generation of a SI signal included in the CTS.

Since the response time table (Table 3.3-5) has been moved to the FSAR update per DOC 1-35-LG, the specific response times are not part of the ITS.

ATTACHED PAGES:

None

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-37 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

In the current TS, the "Minimum Channels OPERABLE" is one less than the "Total Number of Channels" for Functional Units [18.c] (P-8), [18.d](P-9), and [18.e](P-10) in Table 3.3-1 and Functional Unit [11.a](P-11) in Table [3.3-3]. For these Reactor Trip System and ESFAS interlocks, current ACTION Statements [8 and 20] for an inoperable channel are based on the "Minimum Channels OPERABLE" columns in Tables 3.3-1 and [3.3-3]. In the improved TS, only the "Total Number of Channels" information is retained in the LCO and that column is relabeled as the "Required Channels", as discussed in CN 1-04-LG and CN 1-43-A. Required Actions in improved TS 3.3.1 Conditions S and T and improved TS 3.3.2 Condition L are tied to the Required Channels. Therefore, the required permissive channels for these Functional Units are revised in the current TS. Refer also to CN 1-51-LG for P-7.

Comment: [DOC] - The CTS markup changes the total number of channels for the P7, P8, P9,and P10 interlocks (CTS functions 22b, c, d, and e) from 4 channels to 3 and the required number of channels in the ITS is 3 instead of 4. This is counter to the format of the improved TS. All installed RTS channels should be required to be OPERABLE and actions provided for any channel out of service. If the impact of a single inoperable channel is very low, the Required Action may be minimal. Revise the ITS Table to require 4 channels for P7, P8, P9,and P10 interlocks.

[OOS issue] The CTS markup changes the total number of channels for the P-11 interlock (CTS function 8a) from 3 channels to 2. The interlock enables on any two of three channels, thus proposed required channels do not account for single channel failures. This is counter to the format of the improved tech specs and this is a change to the CTS. All installed channels are required to be operable and actions provided for any channel out of service. If the impact of a single inoperable channel is very low, the required action may be minimal.

This change in conjunction with JFD 3.3-44 (multiple function entry for inoperable interlock channels) are OOS issues. Single channel inoperabilities can be verified and operation is indefinite, but multiple inoperable channels as proposed could place the plant in an unsafe condition if the applicable P-11 setpoint (AV) is disabled because power is lowered and then re-enabled because power is raised again. At the transition back into the power range when P-11 is required the ITS would not require subsequent reverification of setpoints per Required Action L.1.

{not WC} The CTS markup changes the total number of channels for the P11 interlock (CTS function 8a) from 3 channels to 2. This is counter to the format of the improved tech specs. All installed **RTS** channels should be required to be **OPERABLE** and actions provided for any channel out of service. If the impact of a single inoperable channel is very low, the Required Action may be minimal.

[illegible]

FLOG RESPONSE: See the response to Comment Number Q 3.3-44. All permissive channels will be required OPERABLE in the ITS, and DOC 1-37-A was changed to 1-37-M.

ATTACHED PAGES:

None

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-48 **APPLICABILITY:** DC

REQUEST:

For DCPP, CTS ACTION 7 is revised to allow a reduction in power below P-9 in lieu of tripping the inoperable channel. The action is also revised to allow bypassing a tripped channel for four hours for surveillance testing other channels. Note (j) is added to Table 3.3-1, Applicable Modes for Functional Unit 17.a and b that states that the requirements are only applicable above P-9.

Comment: The note allowing bypass of inoperable turbine trip functions for surveillance testing is not justified in the DOC and is justified in the NSHC on the basis that the change in reliability is minimal. The change in reliability for the trip function may actually be significant. Provide supporting documentation for the proposed test bypass allowance.

Based on 8/14/98 meeting this comment will be responded to as part of the JFD 3.3-02 comment response.

FLOG RESPONSE: WCAP-10271 justifies the 4-hour bypass of the turbine trip function. Although the bypass of this specific trip function is not in the CTS, the use of WCAP-10271 was approved for use by DCPP in LA 61/60, which was approved by the NRC on May 23, 1991.

See the response to Comment Number 3.3-02.

ATTACHED PAGES:

None

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-49 **APPLICABILITY:** DC

REQUEST:

For DCPP, CTS ACTION 9 is deleted and revised ACTION 6 is used which allows a power reduction below P-7 in lieu of tripping the inoperable channel. Note (g) is added that specifies that Functional Unit 19 of the CTS does not have to be applied until the power level associated with P-7 is reached. ACTION 6 also allows the tripped channel to be bypassed for up to 4 hours to perform surveillance testing on other channels.

Comment: [OOS] - Extended test AOTs for bypass and surveillance are based on approved topical report WCAP-10271. Provide documentation for staff review of WCAP-10271 for Diablo Canyon.

FLOG RESPONSE: WCAP-10271 was approved for use for DCPP in License Amendments 61/60, dated May 23, 1991. Change number 1-49 LS18 is revised to retain and revise CTS ACTION 9 per NUREG-1431. The original 1-49 LS18 deleted ACTION 9 as being redundant to revised CTS ACTION 6. However, a portion of the note of ACTION 6, which deals with the bypass of one additional channel, was overlooked and is not applicable to the RCP breaker position trip. Therefore, the first sentence of CN 1-49 LS18 is revised to read: "CTS ACTION 9 is revised to allow a power reduction below P-7 in lieu of tripping the inoperable channel." The last sentence is revised to read: "The revised ACTION 9 also allows the tripped channel to be bypassed for up to 4 hours to perform surveillance testing on other channels per WCAP-10271 and NUREG-1431." The bypass of the one additional channel of CTS ACTION 6 is retained and modifies the ITS note via change 3.3-37. The note for ACTION M is further clarified to specify which functions allow the bypass of the tripped channel or one additional channel per the CTS and which functions allow only the tripped channel to be bypassed per the CTS or NUREG-1431.

In addition, NSHC LS18 is revised to include a reference to WCAP-10271 and LA 61/60, which approved to use of WCAP-10271 for DCPP. The revision of NSHC LS18 is also included as part of the response to Q 3.3-37.

Refer also to Additional Information Number DC 3.3-003.

ATTACHED PAGES:

Encl. 2	3/4 3-4
Encl. 3A	12
Encl. 3B	12 of 31
Encl. 4	43

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	~~TOTAL NO.~~ ~~OF~~ CHANNELS	REQUIRED ~~TO TRIP~~	~~MINIMUM~~ CHANNELS ~~OPERABLE~~	CHANNELS ~~MODES~~ APPLICABLE	ACTION
18. Safety Injection Input from ESF	2	~~1~~	~~2~~	1, 2	26
19. Reactor Coolant Pump Breaker Position Trip above P-7	1/breaker	~~2~~	~~1/breaker~~	1[9]	6
20. Reactor Trip Breakers [1]	2 2	~~1~~ ~~1~~	~~2~~ ~~2~~	1, 2 3*, 4*, 5*	10, ~~12~~ 11
(new) Reactor Trip Breaker Undervoltage and Shunt Trip Mechanisms	1 each per RTB 1 each per RTB			1, 2 3*, 4*, 5*	12 11
21. Automatic Trip and Interlock Logic	2 2	~~1~~ ~~1~~	~~2~~ ~~2~~	1, 2 3*, 4*, 5*	26 11
22. Reactor Trip System Interlocks					
a. Intermediate Range Neutron Flux, P-6	2	~~1~~	~~2~~	2##	8
b. Low Power Reactor Trips Block, P-7 ~~P-10 Input~~ ~~P-13 Input~~	4 1 per train ~~2~~	~~2~~ ~~1~~	~~3~~ ~~2~~	1 ~~1~~	~~8#~~ 8.1 ~~8#~~
c. Power Range Neutron Flux, P-8	4	~~2~~	~~3~~	1	~~8#~~ 8.1
d. Power Range Neutron Flux, P-9	4	~~2~~	~~3~~	1	~~8#~~ 8.1
e. Power Range Neutron Flux, P-10	4	~~2~~	~~3~~	1, 2	8#
f. Turbine Impulse Chamber Pressure, P-13 (Input to P-7)	2	~~1~~	~~2~~	1	~~8#~~ 8.1
23. Seismic Trip	3 directions (x,y,z) in 3 locations	~~2/3 locations one direction~~	~~2/3 locations all directions~~	1, 2	13

01-04-LG
DC ALL-002
01-43-A
Q 1-49
delete strike out
01-49-LS18
01-14-A
01-14-A
01-14-A
01-51-LG
01-12-M
01-05-A
01-12-M
Remove strike out
Q 3.3-44
01-37 A M
01-05-A
01-37 A M
01-12-M
01-05-A
01-37 A M
01-05-A
01-05-A
01-12-M

CHANGE NUMBER	NSHC	DESCRIPTION
01-43	A	The "Total Number of Channels" columns in CTS Tables 3.3-1 and [3.3-3] and the ["Minimum Channels OPERABLE"] column in CTS Table [3.3-6] and the reference to them in the ACTIONS are relabeled as the "Required Channels" consistent with NUREG-1431. ACTION Statements are revised to use the ITS terminology, "Required Channels". Changing the column titles is purely administrative. The numbers in the columns are adjusted, if necessary. Where the numbers are adjusted, those changes are described in different CNs.
01-44	A	The "MODES For Which Surveillance Is Required" columns in CTS Tables 4.3-1 and 4.3-2 [] and 4.3-3 are deleted since this information is enveloped by CTS Tables 3.3-1 and [3.3-3] and 3.3-6 and is redundant given the integrated OPERABILITY/ SR format in improved TS Tables 3.3.1-1 and 3.3.2-1. DC ALL-002
01-45	M	The Overtemperature [ΔT], Overpower [ΔT], Pressurizer Pressure - High, and Steam Generator Water Level - Low-Low trip functions, which currently reference ACTION Statement [6], are now referenced to new ACTION Statement [~~2.1~~] 6.1, consistent with ITS 3.3.1 Condition E. This change is more restrictive since one less hour is available under new ACTION Statement [~~2.1~~] than under the combination of current ACTION Statement [6] and LCO 3.0.3. 01-45-M DC 3.3-003
01-46	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-47	A	A new note (f) is added and applied to the Functional Unit 6.c. The note is for clarification only as the CTS Table 3.3-1 indicates that only 1 channel is required to be OPERABLE and that there is no trip function under these conditions.
01-48	LS4 INSERT 01-48-LS4	~~CTS ACTION 7 is revised to allow a reduction in power below P-9 in lieu of tripping the inoperable channel. The ACTION is also revised to allow bypassing a tripped channel for four hours for surveillance testing other channels.~~ Note (j) is added to Table 3.3-1, Applicable Modes for Functional Unit 17.a and b that states that the requirements are only applicable above P-9. Q 3.3-02
01-49	LS18	CTS ACTION 9 is ~~deleted and~~ revised ~~ACTION 6 is used~~ i.e. ~~which~~ allows a power reduction below P-7 in lieu of tripping the inoperable channel. Note (g) is added that specifies that Functional Unit 19 of the CTS does not have to be applied until the power level associated with P-7 is reached. The revised ACTION ~~6~~ 9 also allows the tripped channel to be bypassed for up to 4 hours to perform surveillance testing on other channels per WCAP 10271 AND NUREG-1431. 01-49-LS18 DC 3.3-003

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-47 A	For DCPP, a new note (f) is added and applied to the Functional Unit 6.c. The note is for clarification only as the CTS Table 3.3-1 indicates that only 1 channel is required to be OPERABLE and that there is no trip function under these conditions.	Yes	No	No	No
01-48 LS4	~~For DCPP, CTS ACTION 7 is revised to allow a reduction in power below P-9 in lieu of tripping the inoperable channel. The action is also revised to allow bypassing a tripped channel for four hours for surveillance testing other channels.~~ Note (j) is added to Table 3.3-1, Applicable Modes for Functional Unit 17.a and b that states that the requirements are only applicable above P-9.	Yes INSERT 01-48-LS4a	No	No	No Q 3.3-02
01-49 LS18	For DCPP, CTS ACTION 9 is ~~deleted and~~ revised to ~~ACTION 6 is used which~~ allows a power reduction below P-7 in lieu of tripping the inoperable channel. Note (g) is added that specifies that Functional Unit 19 of the CTS does not have to be applied until the power level associated with P-7 is reached. The revised ACTION ~~8~~ 9 also allows the tripped channel to be bypassed for up to 4 hours to perform surveillance testing on other channels.	Yes	No	No	No Q 1-49
01-50 A	ACTION [28] of the CTS duplicates CTS ACTION [6] and is deleted.	~~Yes~~ No	Yes	No, not in CTS.	No, not in current TS. Q 1-50
01-51 LG	This change moves the description of the P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [22.e and 22.f] and lists "1 per train" under the Required Channels column. ~~[This change also deletes the surveillance requirements for P-7 per CN 3.3-54 in the ITS since the COTs and channel calibration apply to P-10 and P-13 not to P-7 logic function.]~~	Yes	Yes	Yes	Yes Q 1-51

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS18
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

The APPLICABILITY for the Reactor Trip on Reactor Coolant Pump Breaker Position above P-7 Trip function is modified such that this function is only required to be OPERABLE above the P-7 interlock setpoint (10% RTP). This is acceptable since the trip function is blocked below P-7. CTS ACTION Statement 9 is deleted and revised ACTION 6 and new note (g) is applied to Functional Unit 19 for the trip functions associated with Reactor Coolant Pump Breaker Position. The ACTION is also revised to allow bypassing a tripped Reactor Coolant Pump Breaker Position channel for up to four hours for surveillance testing other channels.

Current ACTION Statement 9 applies to the Reactor Coolant Pump Breaker Position trip function and allows continued operation with one inoperable channel as long as it is placed in trip within 6 hours. There is no associated action if an inoperable channel is not placed in trip within 6 hours nor is there an action for multiple inoperable channels; therefore, LCO 3.0.3 would be invoked. Revised ACTION Statement ~~6~~ 9 allows continued operation with one or more inoperable channels as long as they are placed in trip within 6 hours or THERMAL POWER is reduced below P-7 within 12 hours, thus LCO 3.0.3 would no longer be applicable. Q 1-49

Revised ACTION Statement ~~6~~ 9 is consistent with the ITS philosophy of reducing power to enter a condition where a function is not required to be OPERABLE. This is less restrictive than the CTS which would require entry into LCO 3.0.3. Entry into LCO 3.0.3 is overly conservative in the above situations since this trip function provides an anticipatory reactor trip function only above P-7.

A note is added per NUREG-1431 and WCAP-10271 to allow the Reactor Coolant Pump Breaker Position trip to be bypassed for up to four hours. The bypass allowance is desirable when 2 channels satisfy the trip logic to reduce the possibility of a spurious trip during testing. Bypassing one channel for testing changes the trip coincidence to a two out of three versus two out of four thus maintaining trip operability with only a slight reduction in reliability. In addition, the potential for a reactor trip during the bypass period is small. The reduction in reliability is acceptable since the potential for a transient due to a reactor trip is reduced by allowing the bypass. WCAP-10271 was approved for use at DCPP via LA 61/60. Q 1-49

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves a no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-51 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

This change moves the description of the P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [18.e and 18.f] and lists "1 per train" under the Required Channels column. [ ]

Comment: The requirement for a channel operational test of the P-7 function should not be deleted. The P-7 function is a distinct function for which surveillance must be specified. Eliminating the channel calibration requirement is acceptable since P-7 has no setpoint of it own. The COT, however, should be retained because the P-7 function has elements which are not part of P-10 or P-13.

FLOG RESPONSE: The P-7 logic function is tested under CTS Table 4.3-1 Functional Unit 20 (Functional Unit 22 for DCPP) and will be tested under the ITS as described in the response to Comment Number Q 3.3-54.

This comment is directed to DCPP, which has surveillance requirements associated with P-7. As explained in the response to Q 3.3-54, the testing requirements specified for P-7 are inappropriate for a logic circuit. DOC 01-59-LS46 has been created to justify the deletion of the CHANNEL CALIBRATION, per the reviewer's suggestion. In addition, the new LS-DOC justifies the deletion of the COT and the adoption of an ACTUATION LOGIC TEST on a refueling outage basis. As a result of this revision, DOC 1-51-LG is revised to delete the bracketed sentence (empty brackets for the other FLOG plants).

ATTACHED PAGES:

Encl. 2	3/4 3-11
Encl. 3A	13 and 14
Encl. 3B	12 and 14 of 31
Encl. 4	Insert NSHC LS46

TABLE [illegible] (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~	01-44-A DC ALL-002
13. Steam Generator Water Level-Low-Low							
a. Steam Generator Water Level-Low-Low	S	R(22) 24	Q	N.A.	N.A.	~~1, 2~~ DC ALL-005	01-23-A
b. RCS Loop ΔT Equivalent to Power	N.A.	R (22) 24	Q	N.A.	N.A.	~~1, 2~~	01-23-A
14. DELETED							
15. Undervoltage-Reactor Coolant Pumps	N.A.	R (22) 24	N.A.	Q(9)	N.A.	~~1~~ DC ALL-005	01-23-A 01-16-LS40
16. Underfrequency-Reactor Coolant Pumps	N.A.	R (22) 24	N.A.	Q(9)	N.A.	~~1~~	01-23-A 01-16-LS40
17. Turbine Trip		24					LS53
a. Low Fluid Oil Pressure	N.A.	R (22)	N.A.	S/U(1a, 9)	N.A.	~~1~~ DC 3.3-002	01-36 ~~01-23-A~~
b. Turbine Stop Valve Closure	N.A.	R (22)	N.A.	S/U(1a, 9)	N.A.	~~1~~	01-24-LS9 ~~1-64-A~~
18. Safety Injection Input from ESF	N.A.	N.A.	N.A.	R(24)(9) Q 1-23	N.A	~~1, 2~~	DC ALL-001 DC ALL-001
19. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	N.A.	R 24	N.A.	~~1~~	DC ALL-005
20. Reactor Trip System Interlocks		24					
a. Intermediate Range Neutron Flux, P-6	N.A.	R(4)	R	N.A.	N.A.	~~2##~~	DC ALL-005
~~b. Low Power Reactor Trips Block, P-7~~	~~N.A.~~	~~R(4)~~ 24 N.A.	(R) 24 N.A.	~~N.A.~~	~~N.A.~~ R24	~~1~~	Q 1-51 01-51-LG
c. Power Range Neutron Flux, P-8	N.A.	R(4) 24	R	N.A.	N.A.	~~1~~	01-59-LS46 DC ALL-005

Delete Strike Out to Restore.

CHANGE NUMBER	NSHC	DESCRIPTION
01-50	A	~~ACTION [28] of the CTS duplicates CTS ACTION [6] and is deleted.~~ Not applicable to DCPP, See Conversion Comparison Table (Enclosure 3B). DC 3.3-003
01-51	LG	This change moves the description of the P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [20.e and 20.f]. The Required Channels column for P-7 lists "1 per train" since this is a more appropriate convention for a logic function. These changes are consistent with NUREG-1431. ~~[This change also deletes the surveillance requirements for P-7 per CN 3.3-54 in the ITS since the COTs and channel calibration apply to P-10 and P-13 not to the P-7 logic function.]~~ Q1-51
01-52	LG	This change moves the specifics on how to verify permissive functions of ACTIONS [8] and [21] to the Bases, consistent with NUREG-1431. This information is more appropriately controlled outside of the TS while the underlying requirement to verify proper permissive operation is unchanged. DC 3.3-004
01-53	~~A~~	~~CTS Table 3.3-1 ACTION Statement [2.c] is revised to be consistent with ITS SR 3.2.4.2, as discussed in CN 4-04-LS-12 in the 3/4.2 package.~~ Not used. Q 1-53
01-54	LS37	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-55	LS39	APPLICABILITY Note [*] and ACTION Statement [11] for Functional Units [1, 6.b, 20, and 21] of CTS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met. As currently worded, these ACTION Statements result in a feedwater isolation signal (FWIS) when in MODE 3 with a T_{avg} less than [554°F. FSAR Table 7.3-3 and FSAR Figure 7.2-1 (sht. 13) detail the FWIS generation on the coincidence of P-4 and low T_{avg}.] A more generic action, which assures the rods are fully inserted and cannot be withdrawn, replaces the specific method of precluding rod withdrawal. The revised APPLICABILITY and ACTION Statements still assure rod withdrawal is precluded. This change does not involve any safety impact and is consistent with traveler TSTF-135. requires that action be initiated to TR 3.3-006
01-56	~~A~~ LS 47	~~The DCPP~~ CTS 3.3.1 ACTION 2.c requires that power be reduced to less than 75% or that SR 4.2.4.2 be performed whenever power is ≥ 50%. This power level requirement should be ≥ 75% since if power is decreased below 75% per the first part of Action 2.c, the required ACTION is complete and in addition, SR 4.2.4.2 is only required for power levels ≥ 75% with one power range detector inoperable. Q 1-56 DC ALL-002

CHANGE NUMBER	NSHC	DESCRIPTION
01-57	LG	CTS Table 3.3-1 Functional Units [12.a and 12.b] are combined per Traveler TSTF-169. The Required Channels, ACTION Statement, and Surveillance Requirements are the same for both Functional Units. The only difference between the two is the APPLICABILITY which could lead to entry into ACTION Statement 6 for Functional Unit [12.a], followed by a power reduction below P-8 exiting the APPLICABILITY and required ACTIONs for that Functional Unit, and subsequent re-entry into ACTION Statement 6 for Functional Unit [12.b]. This would involve an improper cumulative AOT of 12 hours before tripping an inoperable channel, beyond that evaluated in WCAP-10271 and its Supplements. The relationships between these Functional Units and permissives P-7 and P-8 are moved to the ITS 3.3.1 Bases.
01-58	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-59	LS46	~~Not Used.~~ INSERT 1-59-LS59 Q 1-51
01-60		Not Used.
01-61	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-01	A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.
02-02	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-04	LG	The requirements stipulated in ACTIONS a and b are moved to ITS Table 3.3.2-1, with explicit direction contained in the ITS ACTIONS Bases.
02-05	M	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 2-05 Q 2-05 (3.3)
02-06	LS33	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-62	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-65	A	

INSERT 1-63-A

INSERT 1-64-A

INSERT 1-66-LS45

INSERT 1-67-M

INSERT 1-68-LS54

Q 1-AGEN

Q 1-23

Q 3.3 J

Q 3.3-46

DC 3.3-004

DC 3.3-004

INSERT 1-69-M

[illegible]

Insert for Q 1-51

Enclosure 3A Page 14
Insert 1-59-LS46

The CTS for DCPP currently requires that interlocks P-7, P-10, and P-13 be surveillance tested via a CHANNEL CALIBRATION and a COT each refueling outage. This change deletes these requirements for P-7 and substitutes an ACTUATION LOGIC TEST. The P-7 permissive is a derivative of permissives P-10 and P-13. There are no field sensors associated with P-7; there are only field sensors associated with P-10 and P-13. There is also no place outside the SSPS to inject a simulated signal into P-7. There are no adjustable devices directly associated with P-7, and therefore no required range or accuracy values except via the P-10 and P-13 functions. There are no outputs from P-7 other than to the main annunciator permissive window and a digital output to the P-250. There are no interlock or trip functions outside the SSPS. Therefore, the definition of a CHANNEL CALIBRATION and COT are not applicable to P-7. The P-7 function does lend itself to testing that would meet the requirements of the definition of an ACTUATION LOGIC TEST. As noted in the Bases for SR 3.3.1.5, "Perform ACTUATION LOGIC TEST," the P-7 logic is included in the SSPS testing that is conducted monthly on a STAGGARED TEST BASIS. This testing, however, does not verify the function of the main annunciator alarm that can only be tested during a refueling outage. Therefore, DCPP will apply SR 3.3.1.17 to the P-7 function in lieu of the CTS and STS required CHANNEL CALIBRATION and COT, which as explained above are inappropriate. Refer to the response to Comment Number Q 3.3-54 for the justification of the changes to the ITS.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-47 A	For DCPP, a new note (f) is added and applied to the Functional Unit 6.c. The note is for clarification only as the CTS Table 3.3-1 indicates that only 1 channel is required to be OPERABLE and that there is no trip function under these conditions.	Yes	No	No	No
01-48 LS4	~~For DCPP, CTS ACTION 7 is revised to allow a reduction in power below P-9 in lieu of tripping the inoperable channel. The action is also revised to allow bypassing a tripped channel for four hours for surveillance testing other channels.~~ Note (j) is added to Table 3.3-1, Applicable Modes for Functional Unit 17.a and b that states that the requirements are only applicable above P-9.	Yes INSERT 01-48-LS4a	No	No	No Q 3.3-02
01-49 LS18	For DCPP, CTS ACTION 9 is ~~deleted and~~ revised to ~~ACTION 6 is used which~~ allows a power reduction below P-7 in lieu of tripping the inoperable channel. Note (g) is added that specifies that Functional Unit 19 of the CTS does not have to be applied until the power level associated with P-7 is reached. The revised ACTION ~~6~~ 9 also allows the tripped channel to be bypassed for up to 4 hours to perform surveillance testing on other channels.	Yes	No	No	No Q 1-49
01-50 A	ACTION [28] of the CTS duplicates CTS ACTION [6] and is deleted.	~~Yes~~ No	Yes	No, not in CTS.	No, not in current TS. Q 1-50
01-51 LG	This change moves the description of the P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [22.e and 22.f] and lists "1 per train" under the Required Channels column. ~~[This change also deletes the surveillance requirements for P-7 per GN 3.3-54 in the ITS since the COTs and channel calibration apply to P-10 and P-13 not to P-7 logic function.]~~	Yes	Yes	Yes	Yes Q 1-51

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-58 A	The proposed change would allow Reactor Trip System and ESFAS sensor response time testing to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements," or other similar methodologies. This change is consistent with traveler TSTF-111, which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing.	No, see CN 1-03-LS1.	Yes	No, see CN 1-03-LS1.	No, see CN 1-03-LS1.
01-59	~~Not Used.~~ INSERT 1-59 - LS46(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 1-51
01-60	Not Used.	N/A	N/A	N/A	N/A
01-61 M	If the requirements of current CPSES ACTION Statement 6 are not met, LCO 3.0.3 would be entered. In accordance with the ISTS, this ACTION Statement is revised to state that, if the ACTION requirements are not met, the plant must be taken below the P-7 interlock setpoint within the next 6 hours.	No, see CN-01-19-LS8.	Yes	No, see CN-01-19-LS8.	No, see CN-01-19-LS8.
02-01 A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.	Yes	Yes	Yes	Yes
02-02 A	CTS ACTION b.1, Equation 2.2-1, and the values for Total Allowance (TA), Z, and Sensor Error (S) are deleted, consistent with NUREG-1431 Rev. 1.	No, not in CTS.	No, not in CTS.	Yes	Yes
02-03 LG	The Engineered Safety Features Actuation System Instrumentation Trip Setpoints are moved to a licensee controlled document.	No, retained in ITS.	Yes, moved to Bases.	Yes, moved to ITS 3.3.2 Bases.	Yes, moved to ITS 3.3.2 Bases.

INSERT 1-63 - A(a)
INSERT 1-64 - A(a)
INSERT 1-66 - LS45(a)
INSERT 1-67 - M(a)
INSERT 1-68 - LS54(a)
INSERT 1-69 - M(a)

Q 1-AGEN
Q 1-23
Q 3.3.1
Q 3.3-46
DC 3.3-004
DC 3.3-004

[illegible]

Insert for Q 1-51

Enclosure 3B page 14 of 31
Insert 1-59-LS46 (a)

01-59 LS46	The CTS for DCPP currently requires that interlocks P-7, P-10 and P-13 be surveillance tested via a CHANNEL CALIBRATION and a COT each refueling outage. This change deletes these requirements for P-7 and substitutes an ACTUATION LOGIC TEST.	Yes	No	No	No

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

Insert for Q 1-51

Enclosure 4
Insert NSHC LS46

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS46
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

The CTS for DCPP currently requires that interlocks P-7, P-10, and P-13 be surveillance tested via a CHANNEL CALIBRATION and a COT each refueling outage. This change deletes these requirements for P-7 and substitutes an ACTUATION LOGIC TEST. The P-7 permissive is a derivative of permissives P-10 and P-13 interlocks that input to P-7. There are no field sensors associated with P-7; there are only field sensors associated with the P-10 and P-13. There is also no place outside the SSPS to inject a simulated signal into P-7. There are no adjustable devices directly associated with P-7, and therefore no required range or accuracy values except via the P-10 and P-13 functions. There are no outputs from P-7 other than to the main annunciator permissive window and a digital output to the P-250. There are no interlock or trip functions outside the SSPS. Therefore, the definition of a CHANNEL CALIBRATION and COT are not applicable to P-7. The P-7 function does lend itself to testing that would meet the requirements of the definition of an ACTUATION LOGIC TEST. As noted in the Bases for SR 3.3.1.5, "Perform ACTUATION LOGIC TEST," the P-7 logic is included in the SSPS testing that is conducted monthly on a STAGGARED TEST BASIS. This testing, however, does not verify the function of the main annunciator alarm that can only be tested during a refueling outage. Therefore, DCPP will apply SR 3.3.1.17 to the P-7 function in lieu of the CTS and STS required CHANNEL CALIBRATION and COT, which as explained above are inappropriate.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change deletes two inappropriate surveillances and adds a correctly applied surveillance. The proposed change in the surveillance requirements will not affect any of the analysis assumptions for any of the accidents previously evaluated. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be neither degradation in the performance of, nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change in the surveillance requirements will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS46" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

[illegible]

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-53 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Current TS Table 3.3-1 ACTION Statement [2.c] is revised to be consistent with ITS SR 3.2.4.2, as discussed in CN 4-04-LS-12 in the 3/4.2 package.

Comment: The note *** on CTS markup action 2.c is justified as changing the completion time to be consistent with ITS SR 3.2.4.2. This change is categorized as an administrative change to the CTS. Approval of ITS SR 3.2.4.2 is pending staff approval because it represents a less restrictive change to CTS 4.2.4.2. The staff concludes note *** is also less restrictive to CTS T3.3-1. Provide a revised DOC for this change.

The note *** is also shown in the CTS markup to apply to Source Range shutdown modes. This note is not included in the BDPS LCO. Provide clarification of the intetnt of the CTS markup.

FLOG RESPONSE: DOC 1-53-A has been withdrawn. See also the response to Comment Number Q 3.3-120 and the attached pages for that response.

The second comment refers only to Callaway and was resolved during meetings with NRC staff between September 15-18, 1998, as discussed in Reference 5.

ATTACHED PAGES:

Encl. 2	3/4 3-5
Encl. 3A	6 and 13
Encl. 3B	6 and 13 of 31

TABLE 3.3-1 (Continued)

TABLE NOTATIONS

* When the ~~Reactor Trip System breakers are in the closed position and the~~ Control Rod Drive System is capable of rod withdrawal or ~~all~~ one or more rods are not fully inserted. TR 3.3-006	01-55-LS39
~~#The provisions of Specification 3.0.4 are not applicable.~~	01-05-A
##Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.	
###Below the P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.	Q 1-53
~~(new) ***Not required to be performed until 12 hours after input from one Power range Neutron Flux channel to QPTR is inoperable and THERMAL POWER is > 75% RTP.~~	~~01-53-A~~
(new) (f) With the RTB's open or the Rod Control System incapable of withdrawal. In this condition, source range function does not provide reactor trip but does provide indication.	01-47-A
(new) (j) Above the P-9 (Power Range Neutron Flux) Interlock.	01-48-LS4
(new) (k) Including any reactor trip bypass breakers that are racked in and closed for bypassing an RTB.	01-14-A
(new) (d) Above the P-6 (Intermediate Range Neutron Flux) interlock.	01-07-LS3
(new) (g) Above the P-7 (Low Power Reactor Trips Block) interlock.	01-19-LS8

ACTION STATEMENTS

ACTION 1 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement,~~ restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours.	01-04-LG
ACTION 2 - With the number of OPERABLE channels one less than the ~~Total Number of~~ REQUIRED Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:	01-43-A
a. The inoperable channel is placed in the tripped condition within 6 hours,	Q 3.3j 01-66-LSAS
b. ~~The Minimum Channels OPERABLE requirement is met; however,~~ DC ALL-002 the inoperable channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~ and set point adjustment, and	01-04-LG 01-17-A
c. Either, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER ~~and the Power Range Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER~~ within 4 12 hours; or, if the power range neutron flux input to the QUADRANT POWER TILT RATIO is inoperable, the QPTR is monitored per Specification 4.2.4.2 ~~when THERMAL POWER is greater than or equal to 50% of RATED THERMAL POWER.~~ Q 1-53	01-18-LS7 ~~01-53-A~~ 01-56-A LS47 Q 1-56
(new) Otherwise be in MODE 3 within 12 hours.	01-18-LS7
(new) ACTION 2.1 - With one Channel inoperable, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied (Note: The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels ~~per Specification 4.3.1.1~~ and setpoint adjustment):	01-06-LS2 ~~01-17-A~~ Q 3.3-40
a. Place the inoperable channel in tripped condition within 6 hours, or	
b. Be in MODE 3 within 12 hours.	

Q 3.3j

CHANGE NUMBER	NSHC	DESCRIPTION
01-18	LS7	The CTS requirement to reduce the Power Range Neutron Flux Trip setpoint in the event a power range flux channel is inoperable is deleted. This deletion is consistent with NUREG-1431,and justified by: 1) The loss of one channel does not impact the reliability of the Reactor Trip System because the affected channel is placed in trip. It may, however, impact the tilt monitoring for a portion of the reactor core. If the plant wishes to remain at 100% RTP, then the QPTR must be measured using the movable incore detectors. Otherwise, the power level must be reduced to 75% RTP. If the plant chooses to reduce power rather than measure QPTR using the movable incore detectors, the peaking factor surveillances must still be performed on the required frequency. 2) The loss of one channel does not necessarily indicate any core tilt, but rather the inability to measure core tilt with the excore instrumentation. On this basis, there is no justification for reducing the Trip Setpoint, and incurring the potential for a reactor trip, when there is no indication of an abnormal condition existing in the core. NUREG-1431 also allows 12 hours to reduce the thermal power to less than 75% RTP rather than the 4 hours required by the CTS. If the Power Range Neutron Flux trip function is inoperable, but the input to the QPTR is operable, the ISTS do not require that the QPTR be monitored every 12 hours. If the above ACTIONs are not completed, the plant must be in MODE 3 within 12 hours. ~~(See also CN 1-53-A)~~ 01-53 DC 3.3-003
01-19	LS8	This change reflects a revision to current ACTION Statement [6 and 28]. If the requirements of current ACTION Statement [6] are not met, LCO 3.0.3 would be entered. In accordance with the ISTS, this ACTION Statement is revised to state that if the ACTION requirements are not met, the plant must be taken below the P-7 interlock setpoint within the next 6 hours. [The APPLICABLE MODES for Functional Units 9, 11, 12, 15, and 16 in CTS Table 3.3-1 are also revised to add new footnote (g).]
01-20	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

CHANGE NUMBER	NSHC	DESCRIPTION
01-50	A	~~ACTION [28] of the CTS duplicates CTS ACTION [6] and is deleted.~~ Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). DC 3.3-003
01-51	LG	This change moves the description of the P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [20.e and 20.f]. The Required Channels column for P-7 lists "1 per train" since this is a more appropriate convention for a logic function. These changes are consistent with NUREG-1431. ~~[This change also deletes the surveillance requirements for P-7 per CN 3.3-54 in the ITS since the COTs and channel calibration apply to P-10 and P-13 not to the P-7 logic function.]~~ Q 1-51
01-52	LG	This change moves the specifics on how to verify permissive functions of ACTIONS [8] and [21] to the Bases, consistent with NUREG-1431. This information is more appropriately controlled outside of the TS while the underlying requirement to verify proper permissive operation is unchanged. DC 3.3-004
01-53	A	~~CTS Table 3.3-1 ACTION Statement [2.c] is revised to be consistent with ITS SR 3.2.4.2, as discussed in CN 4-04-LS-12 in the 3/4.2 package.~~ Not used. Q 1-53
01-54	LS37	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-55	LS39	APPLICABILITY Note [*] and ACTION Statement [11] for Functional Units [1, 6.b, 20, and 21] of CTS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met. As currently worded, these ACTION Statements result in a feedwater isolation signal (FWIS) when in MODE 3 with a T_{avg} less than [554°F. FSAR Table 7.3-3 and FSAR Figure 7.2-1 (sht. 13) detail the FWIS generation on the coincidence of P-4 and low T_{avg}.] A more generic action, which requires that action be initiated to ~~assures~~ assure the rods are fully inserted and cannot be withdrawn, replaces the specific method of precluding rod withdrawal. The revised APPLICABILITY and ACTION Statements still assure rod withdrawal is precluded. This change does not involve any safety impact and is consistent with traveler TSTF-135. TR 3.3-006
01-56	~~A~~ LS 47	~~The DCPP~~ CTS 3.3.1 ACTION 2.c requires that power be reduced to less than 75% or that SR 4.2.4.2 be performed whenever power is ≥ 50%. This power level requirement should be ≥ 75% since if power is decreased below 75% per the first part of Action 2.c, the required ACTION is complete and in addition, SR 4.2.4.2 is only required for power levels ≥ 75% with one power range detector inoperable. Q 1-56 DC ALL-002

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-18 LS7	The CTS requirement to reduce the Power Range Neutron Flux Trip setpoints in the event a power range flux channel is inoperable is deleted. The time to reduce power below 75% RTP is increased from 4 hours to 12 hours and, if actions are not completed as required, the unit must be in MODE 3 in 12 hours. ~~(See also CN 1-53-A.)~~ AI 28	Yes	Yes	Yes	Yes Q 1-53 Q 3.3-37
01-19 LS8	If the requirements of current ACTION Statement [6] are not met, LCO 3.0.3 would be entered. In accordance with the ISTS, this ACTION Statement is revised to state that, if the ACTION requirements are not met, the plant must be taken below the P-7 interlock setpoint within the next 6 hours. [The Applicability for Functional Units 9, 11, 12, 15, and 16 in CTS Table 3.3-1 is also revised to add new footnote (g).]	Yes	No, see CN 1-61-M.	Yes	Yes
01-20 A	Callaway's current ACTION Statement 31 is reformatted per NUREG-1431 Rev. 1 to require restoration of an inoperable channel within 6 hours or the plant must be taken to MODE 3 within 12 hours. This is an administrative change since the total time to exit the Applicability is unchanged.	No	No	No	Yes
01-21 A	This change reflects the reorganization of the surveillances on the incore/excore axial flux difference. There is no change to the surveillances or how they are performed. See also CN 1-25-A.	Yes	Yes	Yes	Yes
01-22 M	Quarterly COTs have been added for power range - low and intermediate range flux channels. [The requirement to verify the state of P-6 and P-10 has been added for these COTs.]	Yes	Yes	Yes	Yes

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-52 LG	This change moves the specifics on how to verify permissive functions of ACTIONS [8] and [21] to the Bases.	Yes	Yes	Yes	Yes DC 3.3-004
01-53 A	~~CTS Table 3.3-1 ACTION Statement [2.c] is revised to be consistent with ITS SR 3.2.4.2, as discussed in CN 4-04-LS-12 in the 3/4.2 package.~~ Not used.	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA Q 1-53
01-54 LS37	ACTION Statement 5.b of Callaway's CTS Table 3.3-1 is revised to change the 14 day recurring verification of the closed status of the unborated water source isolation valves to 31 days.	No	No	No	Yes
01-55 LS39	Applicability Note [*] and ACTION Statement [11] for Functional Units [1, 6.b, 20, and 21] of CTS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met.	Yes	Yes	Yes	Yes
01-56 ~~A~~ LS43	The DCPP CTS 3.3.1 Action 2.c requires that power be reduced to less than 75% or that SR 4.2.4.2 be performed whenever power is ≥ 50%. This power level requirement should be ≥ 75% since if power is decreased below 75% per the first part of Action 2.c, the required Action is complete and in addition, SR 4.2.4.2 is only required for power levels ≥ 75% with one power range detector inoperable.	Yes	No	No	No Q 1-56
01-57 LG	CTS Table 3.3-1 Functional Units [12.a and 12.b] are combined per TSTF-169. The relationship between Functional Units is moved to the Bases.	Yes	Yes	Yes	Yes

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1-56 **APPLICABILITY:** DC

REQUEST:

The DCPP CTS 3.3.1 Action 2.c requires that power be reduced to less than 75% or that SR 4.2.4.2 be performed whenever power is ^{3} 50%. This power level requirement should be ^{3} 75% since if power is decreased below 75% per the first part of Action 2.c, the required Action is complete and in addition, SR 4.2.4.2 is only required for power levels ^{3} 75% with one power range detector inoperable.

Comment: In CTS Action 2, the change to the level above which the QPTR must be monitored should be justified as a less restrictive change rather than as an administrative change. The change should be discussed along with 01-18-LS7 which justifies the less restrictive technical change which makes the power level requirement sensible.

FLOG RESPONSE: Change number 01-56-A is revised to change number 01-56-LS47. An NSHC LS47 has been developed to justify the power level change from ≥ 50% RTP to ≥ 75% RTP for the requirement to conduct TS 4.2.4.2.

ATTACHED PAGES:

Encl. 2	3/4 3-5
Encl. 3A	13
Encl. 3B	13 of 31
Encl. 4	NSHC Contents and Insert NSHC LS47

TABLE 3.3-1 (Continued)

TABLE NOTATIONS

* When the ~~Reactor Trip System breakers are in the closed position and the~~ Control Rod Drive System is capable of rod withdrawal or ~~all~~ one or more rods are not fully inserted. (TR 3.3-006)	01-55-LS39
~~#The provisions of Specification 3.0.4 are not applicable.~~	01-05-A
##Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.	
###Below the P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.	Q 1-53
~~(new) *** Not required to be performed until 12 hours after input from one Power range Neutron Flux channel to QPTR is inoperable and THERMAL POWER is > 75% RTP.~~	~~01-53-A~~
(new) (f) With the RTB's open or the Rod Control System incapable of withdrawal. In this condition, source range function does not provide reactor trip but does provide indication.	01-47-A
(new) (j) Above the P-9 (Power Range Neutron Flux) Interlock.	01-48-LS4
(new) (k) Including any reactor trip bypass breakers that are racked in and closed for bypassing an RTB.	01-14-A
(new) (d) Above the P-6 (Intermediate Range Neutron Flux) interlock.	01-07-LS3
(new) (g) Above the P-7 (Low Power Reactor Trips Block) interlock.	01-19-LS8

ACTION STATEMENTS

ACTION 1 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels. ~~OPERABLE requirement,~~ restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours.	01-04-LG
ACTION 2 - With the number of OPERABLE channels one less than the ~~Total Number of~~ REQUIRED Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:	01-43-A
a. The inoperable channel is placed in the tripped condition within 6 hours.	Q 3.3j 01-66-LS45
b. ~~The Minimum Channels OPERABLE requirement is met; however,~~ DC ALL-002 the inoperable channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~ and set point adjustment, and	01-04-LG 01-17-A
c. Either, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER ~~and the Power Range Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER~~ within 4 12 hours; or, if the power range neutron flux input to the QUADRANT POWER TILT RATIO is inoperable, the QPTR is monitored per Specification 4.2.4.2 ~~when THERMAL POWER is greater than or equal to 50% of RATED THERMAL POWER~~.	01-18-LS7 ~~01-53-A~~ 01-56-A LS47 Q 1-53 Q 1-56
(new) Otherwise be in MODE 3 within 12 hours.	01-18-LS7
(new) ACTION 2.1 - With one Channel Inoperable, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied (Note: The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels ~~per Specification 4.3.1.1~~ and setpoint adjustment):	01-06-LS2 ~~01-17-A~~ Q 3.3-40
a. Place the inoperable channel in tripped condition within 6 hours, or	
b. Be in MODE 3 within 12 hours.	

Q 3.3j

CHANGE NUMBER	NSHC	DESCRIPTION
01-50	A	~~ACTION [28] of the CTS duplicates CTS ACTION [6] and is deleted.~~ Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). DC 3.3-003
01-51	LG	This change moves the description of the P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [20.e and 20.f]. The Required Channels column for P-7 lists "1 per train" since this is a more appropriate convention for a logic function. These changes are consistent with NUREG-1431. ~~[This change also deletes the surveillance requirements for P-7 per CN 3.3-54 in the ITS since the COTs and channel calibration apply to P-10 and P-13 not to the P-7 logic function.]~~ Q 1-51
01-52	LG	This change moves the specifics on how to verify permissive functions of ACTIONS [8] and [21] to the Bases, consistent with NUREG-1431. This information is more appropriately controlled outside of the TS while the underlying requirement to verify proper permissive operation is unchanged. DC 3.3-004
01-53	~~A~~	~~CTS Table 3.3-1 ACTION Statement [2.c] is revised to be consistent with ITS SR 3.2.4.2, as discussed in CN 4-04-LS-12 in the 3/4.2 package.~~ Not used. Q 1-53
01-54	LS37	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-55	LS39	APPLICABILITY Note [*] and ACTION Statement [11] for Functional Units [1, 6.b, 20, and 21] of CTS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met. As currently worded, these ACTION Statements result in a feedwater isolation signal (FWIS) when in MODE 3 with a T_{avg} less than [554°F. FSAR Table 7.3-3 and FSAR Figure 7.2-1 (sht. 13) detail the FWIS generation on the coincidence of P-4 and low T_{avg}.] A more generic action, ~~which~~ requires that action be initiated to assure~~s~~ the rods are fully inserted and cannot be withdrawn, replaces the specific method of precluding rod withdrawal. The revised APPLICABILITY and ACTION Statements still assure rod withdrawal is precluded. This change does not involve any safety impact and is consistent with traveler TSTF-135. TR 3.3-006
01-56	~~A~~ LS 47	~~The DCPP~~ CTS 3.3.1 ACTION 2.c requires that power be reduced to less than 75% or that SR 4.2.4.2 be performed whenever power is ≥ 50%. This power level requirement should be ≥ 75% since if power is decreased below 75% per the first part of Action 2.c, the required ACTION is complete and in addition, SR 4.2.4.2 is only required for power levels ≥ 75% with one power range detector inoperable. Q 1-56 DC ALL-002

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-52 LG	This change moves the specifics on how to verify permissive functions of ACTIONS [8] and [21] to the Bases.	Yes	Yes	Yes	Yes DC 3.3-004
01-53 ~~A~~	~~CTS Table 3.3-1 ACTION Statement [2.c] is revised to be consistent with ITS SR 3.2.4.2, as discussed in CN 4-04-LS-12 in the 3/4.2 package.~~ Not used.	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA Q 1-53
01-54 LS37	ACTION Statement 5.b of Callaway's CTS Table 3.3-1 is revised to change the 14 day recurring verification of the closed status of the unborated water source isolation valves to 31 days.	No	No	No	Yes
01-55 LS39	Applicability Note [*] and ACTION Statement [11] for Functional Units [1, 6.b, 20, and 21] of CTS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met.	Yes	Yes	Yes	Yes
01-56 ~~A~~ LSXX 43	The DCPP CTS 3.3.1 Action 2.c requires that power be reduced to less than 75% or that SR 4.2.4.2 be performed whenever power is ≥ 50%. This power level requirement should be ≥ 75% since if power is decreased below 75% per the first part of Action 2.c, the required Action is complete and in addition, SR 4.2.4.2 is only required for power levels ≥ 75% with one power range detector inoperable.	Yes	No	No	No Q 1-56
01-57 LG	CTS Table 3.3-1 Functional Units [12.a and 12.b] are combined per TSTF-169. The relationship between Functional Units is moved to the Bases.	Yes	Yes	Yes	Yes

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

[illegible]

[illegible]

Enclosure 4
Insert NSHC LS47

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS47
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

In CTS 3.3.1 Table 3.3-1, ACTION Statement 2c, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER, or the QUADRANT POWER TILT RATIO is required to be monitored per specification 4.2.4.2 when THERMAL POWER is greater than or equal to 50% of RATED THERMAL POWER (the requirement to reduce the power range neutron flux trip is addressed by change number 01-18-LS7). The power level for requiring monitoring of the QUADRANT POWER TILT RATIO should be greater than or equal to 75%, which is consistent with NUREG-1431 ACTION D, since if power is decreased below 75% per the first portion of CTS ACTION 2.c, the required ACTION is complete. In addition, CTS 4.2.4.2 and ITS SR 3.2.4.2 are only required for power levels above 75% since as stated in the Bases of SR 3.2.4.2, reducing the power level to less than 75% RTP prevents operation of the core with radial power distributions beyond the design limit. Thus there is no technical need to perform incore monitoring for power levels below 75% RTP.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

[illegible]

[illegible]

Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the ACTION associated with an inoperable power range neutron flux channel. The proposed change in the ACTION Statement will not affect any of the analysis assumptions for any of the accidents previously evaluated. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change in the ACTION Statement will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS47" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2-05 (3.3) **APPLICABILITY:** DC, CP

REQUEST:

The Functional Unit for containment purge isolation, CTS 3.c, is moved to improved TS 3.3.6. Improved TS 3.3.6 adds requirements on the OPERABILITY of the containment purge radiation monitors and extends the Applicability for the manual initiation and BOP ESFAS actuation logic to include during movement of irradiated fuel assemblies within containment and core alterations.

Comment: Action 18 and CTS Table 3.3.4 (page 3/4-25) reference DOC 02-05-M. The description of change discussion says this change is not applicable to Diablo Canyon. Provide the correct reference and CTS change documentation.

FLOG RESPONSE: This change description is applicable to DCPP and the entry for Enclosure 3A has been revised. In addition, the applicability for FUNCTIONAL UNIT 3.c.1) on Table 3.3-3 has been revised to show the MODE 6 requirement from CTS Table 3.3-6 and delete the CORE ALTERATION reference. The MODE 6 requirement for a single Containment Ventilation Exhaust Radiation monitor (RM-44A or 44B) for FUNCTIONAL UNIT 3.c.4) is shown on Table 3.3-6 INSTRUMENT 3.a.3) and 3.b.1), but is repeated in Table 3.3-3 for clarity. In addition, Table 3.3-3 has been revised to show that FUNCTIONAL UNIT 3.c.4) is required to be operable during MODE 6 and during movement of irradiated fuel in containment and only requires one channel, again shown for clarity since it is shown in Table 3.3-6.

CPSES has also adopted DOC 2-05-M and applied it to CTS Table 3.3-4, FUNCTIONAL UNIT 2. Specifically, the Applicable Modes for this functional unit are extended from MODES 1, 2, 3, 4, and 6 during CORE ALTERATIONS or movement of irradiated fuel within containment to MODES 1, 2, 3, and 4 and during CORE ALTERATIONS or movement of irradiated fuel within containment, regardless of whether the plant is in MODE 5, 6 or no mode.

ATTACHED PAGES:

Encl. 2	3/4 3-17, 33 and 37
Encl. 3A	14 and 16
Encl. 3B	15 and 17 of 31

DC ALL-002

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	~~TOTAL NO. OF~~ REQUIRED CHANNELS	CHANNELS? ~~TO TRIP~~	~~MINIMUM CHANNELS OPERABLE~~	APPLICABLE MODES	ACTION	
						01-43-A 01-04-LG
3. Containment Isolation (Continued)						
2) Automatic Actuation Logic and Actuation Relays	2	~~1~~	~~2~~	1, 2, 3, 4	14	
3) Containment Pressure-High-High	4	~~2~~	~~3~~	1, 2, 3, 4	17	
c. Containment Ventilation Isolation						~~02-20-A~~
1) Automatic Actuation Logic and Actuation Relays	2 1	~~1~~	~~2~~	1, 2, 3, 4 6 during CORE ALTERATIONS, and during movement of irradiated fuel assemblies within containment	18, 37	Q 3.3-79 3-22-LS20 03-14-LS29 02-05-H Q 2-05 (33)
2) Deleted						
3) Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.					
4) Containment Ventilation Exhaust Radiation-High ~~(RM-44A and 44B)~~	2 1	~~1~~	~~2~~	1, 2, 3, 4. during CORE ALTERATIONS and 6, during movement of irradiated fuel assemblies within containment.	18, 37	Q 3.3-79 3-22-LS20 03-14-LS29 02-05-H 02-51-LG Q 3.3-79
4. Steam Line Isolation						
a. Manual	1 manual switch/steam line	~~1 manual switch/steam line~~	~~1 manual switch/ operating steam line~~	1, 2[a], 3[a], 4	24	02-07-LS11 02-38-LS35

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~
3. Containment Isolation								
a. Phase "A" Isolation								
1) Manual	N.A.	N.A.	N.A.	R 24 (9) DC ALL-001	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~ Q1-23
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
b. Phase "B" Isolation								
1) Manual	N.A.	N.A.	N.A.	R 24 (9) DC ALL-001	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~ Q1-23
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
3) Containment Pressure-High-High	S	R 24 (6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~ DC ALL-005 01-23-A
c. Containment Ventilation Isolation								02-~~20~~-A 2 05-A Q 2-05 (3.3)
1) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
2) Deleted								
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
4) Containment Ventilation Exhaust Radiation-High ~~(RM-44A and 44B)~~	S	R 24 (6)	Q(2)	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~ DC ALL-005 02-SLLG Q 3.3-79 Q 3.3-2 01-23-A 02-35-A

TABLE 3.3-6
RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

INSTRUMENT	MINIMUM REQUIRED CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	ACTION
1. Fuel Handling Building (New) Manual	2	**	NA	32**
a. Storage Area				
1) Spent Fuel Pool	1	***	≤ 75 mR/hr	30 & 32**(a)
2) New Fuel Storage	1	***	≤ 15 mR/hr	30 & 32*(a)
b. Gaseous Activity Fuel Handling Building Ventilation Mode Change(b)	~~1~~2	***	Per the ODCP	32**
2. Control Room Ventilation Mode Change	2***			
a. Manual initiation	2	All, and during movement of irradiated fuel assemblies	NA	34; 36
b. Automatic Actuation ~~Logic and Actuation~~ Relays	2		NA	
c. Control Room Atmosphere Intake Radiation Monitors	2 strike out		≤ 2 mR/hr	
3. Containment				
a. Gaseous Activity				
1) Deleted				
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31
3) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	1	6, during CORE ALTERATIONS; and during movement of irradiated fuel assemblies in containment	Per the ODCP	33, 37
b. Particulate Activity				
1) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	1	6 during movement of irradiated fuel assemblies in containment	Per the ODCP	33, 37
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31

~~*With fuel in the spent fuel pool or new fuel storage vault.~~

~~**With irradiated fuel in the spent fuel pool.~~ During movement of irradiated fuel assemblies in the fuel handling building.

~~***One channel for each normal intake to the Control Room Ventilation System (common to both units).~~

~~(a)Action 32 is not applicable to the Fuel Storage Area Monitors following installation of RM-45A and 45B.~~

~~(b)The requirements for Fuel Handling Building Ventilation Mode Change are applicable following installation of RM-45A and 45B.~~

Q 3.3-82
DC 3.3-E
Q 2-05 (3.3)
Q 3.3-79
Q 2-05 (3.3)
Q 3.3-79

01-43-A
03-01-A
03-08-M
03-21-LS52
03-03-LG
03-07-LS16
03-07-LS16
03-21-LS52
03-01-A
03-04-M
03-08-M
03-15-M
Q 3-08
03-10-LG
03-01-A
03-22-LS20
Q 3.3-79
03-01-A
02-05-M
03-14-LS29
02-51-LG
02-05-M
03-14-LS29
02-51-LG
03-01-A
03-03-LG
03-07-LS16
03-10-LG
~~03-01-A~~
03-01-A
03-21-LS52
Q 3.3-82

CHANGE NUMBER	NSHC	DESCRIPTION
01-57	LG	CTS Table 3.3-1 Functional Units [12.a and 12.b] are combined per Traveler TSTF-169. The Required Channels, ACTION Statement, and Surveillance Requirements are the same for both Functional Units. The only difference between the two is the APPLICABILITY which could lead to entry into ACTION Statement 6 for Functional Unit [12.a], followed by a power reduction below P-8 exiting the APPLICABILITY and required ACTIONs for that Functional Unit, and subsequent re-entry into ACTION Statement 6 for Functional Unit [12.b]. This would involve an improper cumulative AOT of 12 hours before tripping an inoperable channel, beyond that evaluated in WCAP-10271 and its Supplements. The relationships between these Functional Units and permissives P-7 and P-8 are moved to the ITS 3.3.1 Bases.
01-58	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-59	LS46	~~Not Used.~~ INSERT 1-59-LS59 Q1-51
01-60		Not Used.
01-61	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-01	A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.
02-02	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-04	LG	The requirements stipulated in ACTIONS a and b are moved to ITS Table 3.3.2-1, with explicit direction contained in the ITS ACTIONS Bases.
02-05	M	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 2-05 Q2-05 (3.3)
02-06	LS33	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-62	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-65	A	

INSERT 1-63-A

INSERT 1-64-A

INSERT 1-66-LS45

INSERT 1-67-M

INSERT 1-68-LS54

INSERT 1-69-M

Q 1-AGEN

Q1-23

Q 3.3 j

Q 3.3-46

DC 3.3-004

DC 3.3-004

[illegible]

Insert for Q 2-05 (3.3)

Enclosure 3A page 14
Insert 2-05

The Functional Unit for Containment [Ventilation] Isolation, CTS 3.c, is moved to improved TS 3.3.6. Improved TS 3.3.6 adds requirements on the OPERABILITY of the containment [ventilation] monitors and extends the Applicability for the [Manual Initiation and] actuation logic to include during movement of irradiated fuel assemblies within containment [].

CHANGE NUMBER	NSHC	DESCRIPTION
02-15	M	ACTION Statement [17] has been expanded to specify additional actions and options if an inoperable channel is not placed in bypass within the specified time period. In the CTS, this would have required an entry into LCO 3.0.3, which would necessitate that the plant initiate a shutdown within 1 hour and be in the next mode in 6 hours. In the ITS, the requirements to place the inoperable channel in bypass within a time constraint and the reduction, by 1 hour, in the time to exit APPLICABILITY are more restrictive than the CTS. [As a result of the revision to ACTION 17, a new ACTION 17.1 was created for Functional Unit 4.c that requires entry to MODE 4 if the required ACTIONS are not met.] INSERT 2-15-M Q 2-15
02-16	LS12	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-17	LS13	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-18	LS31	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-19	LG	~~This change moves functions provided by a Safety Injection signal and the AFW pump start entries [ ] for Functional Units [6.d, and 6.e] in CTS Table [3.3-3] to the ITS 3.3.2 Bases, consistent with NUREG-1431.~~ INSERT 2-19-LG Q 2-19
02-20	A	~~The Functional Unit for Containment Ventilation Isolation is moved to ITS 3.3.6. There are no technical differences introduced by this process[ ]~~ Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). Q 2-05(2-3)
02-21	LS22	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-22	A	~~Not Used.~~ INSERT 2-22-A Q 3.3-63
02-23	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-24	LS19	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-25	~~A~~	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ Not used. Q 2-25
02-26	LS21	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-27	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
02-04 LG	The requirements stipulated in ACTIONS a and b are moved to ITS Table 3.3.2-1, with explicit direction contained in the ITS ACTIONS Bases.	Yes	Yes	Yes	Yes
02-05 M	The Functional Unit for Containment ~~Purge~~ Isolation, CTS 3.c, is moved to improved TS 3.3.6. Improved TS 3.3.6 adds requirements on the OPERABILITY of the containment purge radiation monitors and extends the Applicability to the [Manual Initiation and ~~BOP ESFAS~~] actuation logic to include during movement of irradiated fuel assemblies within containment and Core Alterations.	~~No, see CN 02-20-A.~~ YES	No, see CN 2-20-A.	Yes	Yes Q 2-05 (3.3)
02-06 LS33	Functional Unit 4.a.1 of curret TS Table 3.3-3 has been deleted.	No, retained in CTS.	~~No, see CN 2-25-A.~~ YES	~~No, see CN 2-25-A~~ YES	Yes Q 2-25
02-07 LS11	[Note (a) is added to CTS Table 3.3-3 for the Steam Line Isolation Function to state that the LCO requirements are not applicable in MODES 2 and 3 when the MSIVs are closed and deactivated]. Note [(b)] is added to CTS Table [3.3-3] for the Feedwater Isolation and Turbine Trip Function to state that the LCO requirements are not applicable when the [MFIVs, MFRVs and the associated bypass valves] are closed [and deactivated or isolated by a closed manual valve].	Yes	Yes	Yes	Yes
02-08 M	[This change revises ACTION 20 and 35 in CTS Table 3.3-3 and adds new ACTION 35.2 which are applicable to Units 1.c, 1.d, 1.f, 4.d, 4.e, 5.b, 6.c, 2 a, ~~and 6.d~~]. (1) These ACTION Statements, written to ~~reflect the~~ Applicability of the affected channels, are more restrictive, by one hour, than the current ACTION Statement[s] which invoke[ ] LCO 3.0.3 if the inoperable channel is not placed in trip within 6 hours.	Yes	Yes	Yes	Yes DC 3.3-Ed DC ALL-002

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
02-15 M	Action Statement [17] has been expanded to specify additional actions and options if an inoperable channel is not placed in bypass within the specified time period. In the ITS, the requirements to place the inoperable channel in bypass within a time constraint and the reduction, by 1 hour, in the time to exit Applicability are more restrictive than the CTS. [As a result of the revision to ACTION 17, a new ACTION 17.1 was created for Functional Unit 4.c that requires entry to MODE 4 if the ACTIONS are not met.]	Yes	Yes	Yes	Yes
02-16 LS12	ACTION Statement [26] for an inoperable channel in the CTS Table [3.3-3] Functional Unit [9.a-9.c] is modified to be consistent with NUREG-1431 Rev. 1 (7 day AOT in ITS 3.3.7).	No, not in CTS.	Yes	Yes	Yes
02-17 LS13	The monthly TADOT has been extended to quarterly.	No, not in CTS.	Yes	No, retained CTS.	No, retained CTS.
02-18 LS31	CTS Table 3.3-3 ACTION Statement 19 is revised to reflect ITS 3.3.5 for the Loss of Power Functional Unit.	No, see CN 2-48-LS28.	No, see CN 2-32-LS-23.	Yes	Yes
02-19 LG	This change moves (1) functions provided by a Safety Injection signal and the AFW pump start entries [ ] for Functional Units [6.d, and 6.e] in CTS Table [3.3-3] ~~to the~~ and 3.3-4 ITS 3.3.2 Bases.	Yes	Yes	Yes	Yes DC 3.3-Ed
02-20 A	The Functional Unit for Containment Vent Isolation is moved to ITS 3.3.6. There are no technical differences introduced by this process[ ].	~~Yes~~ No, see CN 2-05-M.	Yes	No, see CN 2-05-M.	No, see CN 2-05-M Q 2-05(3.3)
02-21 LS22	In CPSES CTS Table 3.3-2, Action 17.1 replaces Action 17 for RWST Level Low-Low and Action 17.2 replaces Action 17 for SG Water Level - High High.	No	Yes	No	No

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2-08 **APPLICABILITY:** DC

REQUEST:

[New ACTION Statements 33.1 and 33.2 replace ACTION Statement 33 in current TS Table 3.3-3 Functional Units 1.c, 1.d, 1.e, 4.c, 4.d, 4.e, 5.b, 6.d.1.a, and 6.d.2.a.] These ACTION Statement[s], written to reflect the Applicability of the affected channels, are more restrictive, by one hour, than the current ACTION Statement[s] which invoke[ ] LCO 3.0.3 if the inoperable channel is not placed in trip within 6 hours.

Comment: Action Statement 35 is changed to a MODE 2 shutdown in-lieu of the previous requirement to enter LCO 3.0.3. The CTS 3.0.3 specifies transition to place the unit in a Mode in which the specification does not apply by placing it, as applicable, in at least Hot Standby within the next 6 hours. As written, the CTS does not specify transition to Mode 2 and it appears that LCO 3.0.3 does not allow stopping at Mode 2. The proposed change is not a "more restrictive" change and the justification does not address the basis for allowing transition to Mode 2. Provide a "less restrictive" justification.

{DC] Action 35.2.b references a function 6.g which does not exist in CTS Table 3.3-3. Provide clarification of this CTS markup.

FLOG RESPONSE: A new DOC 2-56-LS48 is created which justifies the transition to MODE 2 for CTS ACTION 35, the MODE of non-applicability for FUNCTIONAL UNIT 6.d., in-lieu of the requirement to require a transition to MODE 3 per LCO 3.0.3. The ITS Bases for Function 6.g is revised to explain the MODE 1 requirement.

The reference to CTS Function Unit 6.g should be Function Unit 6.d and has been corrected.

ATTACHED PAGES:

Encl. 2	3/4 3-22
Encl. 3A	15 and 18
Encl. 3B	23 of 31
Encl. 4	NSHC Contents and Insert LS48
Encl. 5B	B 3.3-102

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

ACTION 21 - With the number of OPERABLE channels less than the ~~Minimum Number of~~ Required Channels OPERABLE, within 1 hour determine ~~by observation of the associated permissive annunciator window(s)~~ that the interlock is in its required state for the existing plant condition, or ~~apply Specification 3.0.3~~ be in MODE 3 in 7 hours and MODE 4 in 13 hours. 01-04-LG 02-14-M 01-52-LG

ACTION 22 - With the number of OPERABLE Channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~ provided the other channel is OPERABLE. 01-04-LG 01-66-LS45 Q3.3j

ACTION 23 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours. 01-43-A

ACTION 24 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated pump or valve inoperable and take the ACTION required by Specification 3.7.1.5 or 3.7.1.2 as applicable. 01-43-A

ACTION 25 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~ provided the other channel is OPERABLE. 01-04-LG 01-66-LS45 Q3.3j

ACTION 29 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected RCS Loop Delta-T channel(s), either: 01-43-A

a. The Trip Time Delay threshold power level for zero seconds time delay is adjusted to 0% RTP, or DC ALL-002

Delete Bold Strike out

b. With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, the affected Steam Generator Water Level-Low-Low channels are placed in the tripped condition, or 01-43-A 01-67-M Q 3.3-46

c. Be in MODE 3 in 12 hours AND MODE 4 in 18 hours

ACTION 35 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 01-43-A

a. The inoperable channel is placed in the trip condition within 6 hours, ~~and~~ or be in MODE 2 in 12 hours. Q 2-08 02-08-M 02-56-LS48

b. ~~The Minimum Channels OPERABLE requirement is met; however~~, The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels ~~per Specification 4.3.2.1~~. 01-04-LG 01-66-LS45 Q3.3j

ACTION 35.2 - With the number of OPERABLE channels one less than the Required Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 02-08-M

CHANGE NUMBER	NSHC	DESCRIPTION
02-07	LS11	[Note (a) is added to CTS Table 3.3-3 for the Steam Line Isolation Functional Units 4.a, 4.b, 4.c, 4.d, and 4.e to state that the LCO requirements are not applicable in MODES 2 and 3 when the MSIVs are closed and deactivated]. Note [(b)] is added to CTS Table [3.3-3] for the Feedwater Isolation and Turbine Trip Function [Functional Units 5.a, and 5.b] to state that the LCO requirements are not applicable when the [MFIVs, MFRVs or the associated bypass valves] are closed [and deactivated or isolated by a closed manual valve], INSERT 2-07-LS11 When these valves are closed [and deactivated or isolated by a closed manual valve], they are already performing their safety function. These changes are consistent with NUREG-1431. Q2-LSGEN Q2-08
02-08	M	[This change revises ACTION 20 ~~and 35~~ in CTS Table 3.3-3 and adds new ACTION 20.2 and 35.2 which are applicable to Functional Units 1.c, 1.d, 1.e/f, 4.c, 4.d, 4.e, 5.b, 6.c.1)a, and ~~6.d~~]. These ACTION Statements, written to reflect the APPLICABILITY of the affected channels and consistency with ITS 3.3.2 [Conditions D and I], are more restrictive, by one hour, than the current ACTION Statement[s] which invoke[ ] LCO 3.0.3 if the inoperable channel is not placed in trip within 6 hours. DC ALL-002 DC 3.3-Ed
02-09	LG	Separate ESFAS entries for the motor-driven and turbine-driven auxiliary feedwater pumps are no longer necessary, consistent with NUREG-1431. The only difference in the requirements (an SR 4.0.4 exception for response time testing of the turbine-driven auxiliary feedwater pump) has been addressed in the ITS by a Note in Surveillance Requirement 3.3.2.10. [The details of which actuation signal starts which pump is moved to the Bases for SI and RCP undervoltage].
02-10	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-11	A	The Functional Unit for Loss of Power [CTS 7.a, 7.b] is moved to improved TS 3.3.5.
02-12	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-13	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-14	M	This change modifies ACTION Statement [21] for permissive P-11 [ ] to provide specific shutdown requirements to exit APPLICABILITY in lieu of applying LCO 3.0.3. This change is more restrictive by one hour, consistent with NUREG-1431.

CHANGE NUMBER	NSHC	DESCRIPTION
		CA 3.3-009
02-41	~~LS36~~ e	Not used. ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ e
02-42	~~LS38~~ e	Not used. ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B)~~ e CA 3.3-002
02-43	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-44	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-45	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-46	LS42	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-47	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-48	~~LS28~~ e	Not used. ~~A new Action 15 is added and applied to Functional Unit 7. a. 2) and 7. b. 1) that allows the affected Emergency Diesel Generator to be declared inoperable and requires entry into Specification 3.8.1.1 when more than one relay per bus is inoperable. Current ACTION 16 does not address the above situation and requires entry into LCO 3.0.3. This change is consistent with NUREG-1431.~~ e DC 3.3-001 Q 3.3-63 Q 3.3-79 Q 2-08
INSERT 2-50-LG INSERT 2-51 LG INSERT 2-56-LS48		
03-01	A	The requirements of this specification [CTS 3.3.3.1] are moved to [four] separate specifications in the improved TS. The RCS Leakage Detection requirements are moved to improved TS 3.4.15. [The Fuel Building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [The Containment Ventilation Isolation requirements are moved to improved TS 3.3.6.]
03-02	M	~~The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.6-1, 3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.~~ e Q 3-02 INSERT 3-02-M
03-03	LG	The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10CFR70.24; however, there is no requirement for [them] to be in the Technical Specifications [as criticality monitors. They are retained, however, as initiators of the Iodine Removal mode of the FHBVS for a fuel handling accident until RM-~~44A~~ 45A and ~~44B~~ 45B are installed in accordance with License Amendment 70/69]. Since Part 70 is invoked in the operating license, these monitors will be retained in the plant design. INSERT 3-03 DC ALL-002 Q 3-03

[illegible]

Insert for Q 2-08

Enclosure 3A page 18
Insert 2-56-LS48

CTS ACTION Statement 35, which is applicable to the RCP undervoltage start of the turbine-driven AFW pump, is revised to require MODE 2 entry and to delete the requirement to enter LCO 3.0.3 which requires the unit to be placed in MODE 3 as a minimum. The MODE of non-applicability for the CTS is MODE 2 since the start of the turbine-driven AFW pump from RCP undervoltage is blocked below P-7 and is unavailable for starting the turbine-driven AFW pump during MODE 2 operation. Only the SG low level start signal is credited for the turbine-driven AFW pump start for MODE 2 or 3 operation in the accident analyses. The requirement to enter MODE 3 when the function is inoperable is unnecessary since the function is only required to be OPERABLE in MODE 1.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
02-48 ~~LS28~~	~~A new Action 15 is added and applied to function 7.a.2) and 7.b.1) that allows the affected Emergency Diesel Generator to be declared inoperable and requires entry into Specification 3.8.1.1 when more than one relay per bus is inoperable. Current ACTION 16 does not address the above situation and requires entry into LCO 3.0.3. This change is consistent with NUREG-1431~~ Not used	~~Yes~~ NA	~~No, see CN-2-23-LS23.~~ NA	~~No, see CN-2-18-LS31.~~ NA	~~No, see CN-2-18-LS31~~ NA DC 3.3-001 Q 3.3-63 Q 3.3-79 Q 2-08
03-01 A	The requirements of this specification [CTS 3.3.3.1] are moved to [four] separate specifications in the improved TS. The RCS Leakage Detection requirements are moved to improved TS 3.4.15. [The Fuel Building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [The Containment Ventilation Isolation is moved to improved TS 3.3.6.] INSERT 3-02-M	Yes	Yes	Yes	Yes Q 3-02
03-02 M	The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.6-1, 3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.	Yes	Yes	Yes	Yes
03-03 LG	The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10CFR70.24; however, there is no requirement for [them] to be in the Technical Specifications [as criticality monitors. They are retained, however, as initiators of the Iodine Removal mode of the FHBVS for a fuel handling accident until RM-45A/B are installed].	Yes, moved to FSAR.	No, not in CTS.	Yes, moved to USAR Section 16.3.	Yes, moved to FSAR Section 16.3.
03-04 M	This change adds the Applicability for movement of irradiated fuel assemblies. The CTS Applicability of "All" MODES does not cover the movement of irradiated fuel assemblies when the core is offloaded.	Yes	Yes	No, see CN 3-12-A.	Yes

INSERT 2-50-LG
INSERT 2-51-LG
INSERT 2-56-LS480

[illegible]

Insert for Q 2-08

Enclosure 3B page 23 of 31
Insert 2-56-LS48 (a)

02-56 LS48	For DCPP, CTS ACTION Statement 35 is revised to require MODE 2 entry and to delete the requirement to enter LCO 3.0.3 which requires the unit to be placed in MODE 3 as a minimum.	Yes	No	No	No

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

V. Recurring No Significant Hazards Considerations - "TR"

[illegible]

[illegible]

Insert for Q 2-08

Enclosure 4
Insert NSHC LS48

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS48
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

In current ACTION Statement 35, which is applicable to the RCP undervoltage start of the turbine-driven AFW pump, if the required action cannot be completed, CTS LCO 3.0.3 is entered which requires the unit to be placed in MODE 3 as a minimum. However, the MODE of non-applicability for the CTS is MODE 2 since the start of the turbine-driven AFW pump from RCP undervoltage is blocked below P-7 and is unavailable for starting the turbine-driven AFW pump during MODE 2 operation. Only the SG low level start signal is credited for the turbine-driven AFW pump start for MODE 2 or 3 operation in the accident analyses. The requirement to enter MODE 3 when the function is inoperable is unnecessary since the function is only required to be operable in MODE 1. Therefore, ACTION 35 is revised to only require MODE 2 entry.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed

[illegible]

[illegible]

change adds a relaxation to the ACTION associated with an inoperable Turbine Driven Auxiliary Feedwater pump start due to RCP Undervoltage channel. The proposed change in the ACTION Statement will not affect any of the analysis assumptions for any of the accidents previously evaluated. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change in the ACTION Statement will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS48" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

e. ~~Auxiliary Feedwater—Loss of Offsite Power (continued)~~

~~reactor decay heat and sensible heat removal following the reactor trip.~~

and Q 2-08

Functions 6.a ~~through 6.e~~ 6.b, 6.d, ~~and 6.g~~ must be OPERABLE in MODES 1, 2, and 3 to ensure that the SGs remain the heat sink for the reactor except the RCS ΔT ~~time delays~~ associated with Function 6.d are only required to be operable in MODES 1 and 2. Below Mode 2, for the trip time delay, the maximum time delay is permitted; therefore, no OPERABILITY requirement is imposed on vessel ΔT channels in MODE 3. SG Water Level—Low Low in any operating SG will cause the motor driven AFW pumps to start. The system is aligned so that upon a start of the pump, water immediately begins to flow to the SGs. SG Water Level—Low Low in any two operating SGs will cause the turbine driven pumps to start. These Functions do not have to be OPERABLE in MODES 5 and 6 because there is not enough heat being generated in the reactor to require the SGs as a heat sink. In MODE 4, AFW actuation does not need to be OPERABLE because either AFW or residual heat removal (RHR) will already be in operation to remove decay heat or sufficient time is available to manually place either system in operation.

equivalent power inputs

Q 3.3-46

~~f~~ g. Auxiliary Feedwater—Undervoltage Reactor Coolant Pump

INSERT LCO 6.g

Q 2-08

A loss of power on the buses that provide power to the RCPs provides indication of a pending loss of RCP forced flow in the RCS. The Undervoltage RCP Function senses the voltage ~~downstream~~ upstream of each RCP breaker. A loss of power, ~~or an open RCP breaker,~~ on two ~~or more~~ RCPs buses, will start the turbine driven AFW pump to ensure that at least one SG contains enough water to serve as the heat sink for reactor decay heat and sensible heat removal following the reactor trip.

~~g~~ h. NOT USED ~~Auxiliary Feedwater—Trip of All Main Feedwater Pumps~~

~~A Trip of all MFW pumps is an indication of a loss of MFW and the subsequent need for some method of decay heat and sensible heat removal to bring the reactor back to no load temperature and pressure. A turbine~~

(continued)

[illegible]

Insert Q 2-08

Enclosure 5B page B 3.3-102
Insert LCO 6.g

during MODE 1 operation above P-7. Below P-7, this ESFAS and RTS function is blocked since there is insufficient heat to be concerned about DNB.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2-15 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

Action Statement [16] has been expanded to specify additional actions and options if an inoperable channel is not placed in bypass within the specified time period. In the ITS, the requirements to place the inoperable channel in bypass within a time constraint and the reduction, by 1 hour, in the time to exit Applicability are more restrictive than the current TS. [ ]

Comment: The completion time for bypass of an inoperable containment high-high pressure signal (Functions 2.c and 3.b.3 - Action 17 and Function 4.c - Action 17.1) is changes from unspecified (immediate) to within 6 hours. Justification is not provided for the new completion time. This also appears to be a less restrictive, not a more restrictive change.

The completion time for bypass of an inoperable channel in action 16 is changed from unspecified (immediate?) to 6 hours. Justification is not provided for the new time. This also appears to be a less restrictive, not a more restrictive change.

FLOG RESPONSE: In practice, because a time for completion of an action is not specified, no rigorous completion time is applied; the action is completed in an unspecified, "reasonable" time frame. For the functions where a completion time is not specified, the operability of the channel has no safety significance. The required number of channels remains sufficient to initiate the required protective action, even if a single failure is considered, regardless of the state of the one inoperable channel. Because a specific time would be required by the ITS, this change is considered to be more restrictive. DOC 2-15-M will be enhanced to reflect this discussion.

ATTACHED PAGES:

Encl. 3A 16

CHANGE NUMBER	NSHC	DESCRIPTION
02-15	M	ACTION Statement [17] has been expanded to specify additional actions and options if an inoperable channel is not placed in bypass within the specified time period. In the CTS, this would have required an entry into LCO 3.0.3, which would necessitate that the plant initiate a shutdown within 1 hour and be in the next mode in 6 hours. In the ITS, the requirements to place the inoperable channel in bypass within a time constraint and the reduction, by 1 hour, in the time to exit APPLICABILITY are more restrictive than the CTS. ~~[As a result of the revision to ACTION 17, a new ACTION 17.1 was created for Functional Unit 4.c that requires entry to MODE 4 if the required ACTIONS are not met.]~~ INSERT 2-15-M Q 2-15
02-16	LS12	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-17	LS13	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-18	LS31	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-19	LG	~~This change moves functions provided by a Safety Injection signal and the AFW pump start entries [ ] for Functional Units [6.d, and 6.e] in CTS Table [3.3-3] to the ITS 3.3.2 Bases, consistent with NUREG-1431.~~ INSERT 2-19-LG Q 2-19
02-20	A	~~The Functional Unit for Containment Ventilation Isolation is moved to ITS 3.3.6. There are no technical differences introduced by this process[ ]~~ Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). Q 2-05(2-3)
02-21	LS22	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-22	A	~~Not Used.~~ INSERT 2-22-A Q 3.3-63
02-23	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-24	LS19	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-25	~~A~~	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ Not used. Q 2-25
02-26	LS21	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-27	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

[illegible]

Insert for Q 2-15

Enclosure 3A page 16
Insert 2-15-M

In practice, because a time for completion of an action is not specified, no rigorous completion time is applied; the action is completed in an unspecified, "reasonable" time frame. For the functions where a completion time is not specified, the operability of the channel has no safety significance. The required number of channels remain sufficient to initiate the required protective action, even if a single failure is considered, regardless of the state of the one inoperable channel. Because a specific time would be required by the ITS, this change is considered to be more restrictive.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2-19 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

This change moves functions provided by a safety injection signal and the AFW pump start entries [and ** note] for Functional Units [6.e, 6.f, and 6.g] in current TS Table [3.3-3] to the ITS 3.3.2 Bases.

Comment: Clarify the intent of this change is to state that descriptive text regarding ESFAS functions is moved to the Bases with the limitation and restrictions of the CTS unchanged. Provide a citation giving the location of the text in the Bases.

FLOG RESPONSE: The DOC 2-19-LG will be enhanced to provide the requested information.

ATTACHED PAGES:

Encl. 3A 16

CHANGE NUMBER	NSHC	DESCRIPTION
02-15	M	ACTION Statement [17] has been expanded to specify additional actions and options if an inoperable channel is not placed in bypass within the specified time period. In the CTS, this would have required an entry into LCO 3.0.3, which would necessitate that the plant initiate a shutdown within 1 hour and be in the next mode in 6 hours. In the ITS, the requirements to place the inoperable channel in bypass within a time constraint and the reduction, by 1 hour, in the time to exit APPLICABILITY are more restrictive than the CTS. ~~[As a result of the revision to ACTION 17, a new ACTION 17.1 was created for Functional Unit 4.c that requires entry to MODE 4 if the required ACTIONS are not met.]~~ INSERT 2-15-M Q 2-15
02-16	LS12	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-17	LS13	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-18	LS31	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-19	LG	~~This change moves functions provided by a Safety Injection signal and the AFW pump start entries [ ] for Functional Units [6.d, and 6.e] in CTS Table [3.3-3] to the ITS 3.3.2 Bases, consistent with NUREG-1431.~~ INSERT 2-19-LG Q 2-19
02-20	A	~~The Functional Unit for Containment Ventilation Isolation is moved to ITS 3.3.6. There are no technical differences introduced by this process[ ]~~ Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). Q 2-05(2-3)
02-21	LS22	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-22	A	~~Not Used.~~ INSERT 2-22-A Q 3.3-63
02-23	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-24	LS19	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-25	~~A~~	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ Not used. Q 2-25
02-26	LS21	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-27	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

[illegible]

Insert for Q 2-19

Enclosure 3A
Insert 2-19-LG

The text in Functional Units [1, 6.d, and 6.e] of current TS Table [3.3-3 and 3.3-4], describing the ESFAS functions provided by a Safety Injection signal and the AFW pump start entries [ ], are moved to the APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY Section of the ITS 3.3.2 Bases. The list of functions initiated by a Safety Injection signal and the particular AFW pump(s) started involve clarifying information for the retained Functional Units; the limitations and restrictions of the current TS are unchanged. The Functional Units are retained in the ITS while the descriptive material is moved to the Bases.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2-35 **APPLICABILITY:** DC

REQUEST:

Note (2) of DCPP CTS Table 4.3.2 is deleted. The testing frequency was relaxed from monthly (M) to quarterly (Q) via License Amendment 102/101 but the note was inadvertently left in.

Comment: OOS - The change to the channel operational test frequency for CTS function 3.c.4 relates to a license amendment that is separate from the tech spec conversion.

The change to the channel calibration includes an interval and note change that is not evaluated

FLOG RESPONSE: License Amendment 102/101 was issued by the NRC on May 26, 1995, to DCPP. This license amendment revised the testing requirements for Functional Unit 3.c.4) from Table 4.3-2 and Table 4.3-3 of CTS 3.3.3.1 from a monthly CHANNEL FUNCTIONAL TEST (CFT) to quarterly. The amendment intended to revise the note (2) to Table 4.3-2 for the CFT frequency from monthly to quarterly. Upon issuance of the LA, the revised pages for Table 4.3-2 did not reflect the applicability of note (2) to functional unit 4.c.3) nor was the frequency requirement of note (2) revised. The CTS approved testing requirement for Functional Unit 3.c.4) is a quarterly CFT, and this requirement has been incorporated into ITS 3.3.6.

ATTACHED PAGES:

None

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2-36 **APPLICABILITY:** DC

REQUEST:

This change revises the APPLICABILITY of Functional Unit 7 to require operability when the associated DG is required to be OPERABLE by LCO 3.8.2 of the ITS.

Comment: The change modifies the applicability for the loss of power function (Function 7) from MODE 4 (CTS) to a subset of MODE 4 conditions (when required by DG operability), but it is categorized as "more restrictive". It should be categorized as "less restrictive".

FLOG RESPONSE: DOC 2-36 has been revised from an M-DOC to an LS-DOC. If the DG is not required to be OPERABLE by LCO 3.8.2, then requiring the undervoltage 4.16 kV transfer function to be OPERABLE when there is no DG available for transfer, does nothing to accomplish the intended safety function.

ATTACHED PAGES:

Encl. 2	3/4 3-20
Encl. 3A	17
Encl. 3B	20 of 31
Encl. 4	NSHC Contents and Insert NSHC LS49

TABLE [illegible]3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

DC ALL-002

FUNCTIONAL UNIT	~~TOTAL NO. OF~~ REQUIRED CHANNELS	~~CHANNELS TO TRIP~~	~~MINIMUM CHANNELS OPERABLE~~	APPLICABLE MODES	ACTION	
						01-04-LG 01-43-A
7. Loss of Power (4.16 kV Emergency Bus Undervoltage)						02-11-A
a. First Level				1, 2, 3, 4**		02-36-M LS49 Q 2-36
1) Diesel Start	1/Bus	~~1/Bus~~	~~1/Bus~~		16	
2) Initiation of Load Shed	2/Bus	~~2/Bus~~	~~2/Bus~~		~~16~~15	02-48-LS28 DC 3.3-001
b. Second Level				1, 2, 3, 4**		02-36-M
1) Undervoltage Relays	2/Bus	~~2/Bus~~	~~2/Bus~~		~~16~~15	02-48-LS28
2) Timers to Start Diesel	1/Bus	~~1/Bus~~	~~1/Bus~~		16	
3) Timers to Shed Load	1/Bus	~~1/Bus~~	~~1/Bus~~		16	
8. Engineered Safety Features Actuation System Interlocks						
a. Pressurizer Pressure, P-11	K 3~~2~~ Remove Strike Out	2	2	1, 2, 3	21	01-37-M Q 3.3-44
b. DELETED						
c. Reactor Trip, P-4	2	2	2	1, 2, 3	23	
9. Residual Heat Removal pump trip ~~low~~ on RWST level -low	3	2	2	1, 2, 3, 4	~~20.1~~ 36	02-29-M DC ALL-002

CHANGE NUMBER	NSHC	DESCRIPTION
02-28	LG	This change moves information inserted by LA 114/112 on containment spray and safety injection coincidence to the Bases, consistent with NUREG-1431. DC ALL-002
02-29	M	A new functional unit 9 is added, per ~~a~~ License Amendment Request 97-10 that incorporates ACTION ~~20.1~~ 36 (new) and Surveillances for the residual heat removal (RHR) pump trip from low refueling water storage tank level.
02-30	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-31	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-32	LS23	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-33	~~A~~	Not ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ used. CA 3.3-007
02-34	LS34	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-35	A	Note (2) of the CTS Table 4.3.2 is revised. The testing frequency was relaxed from monthly (M) to quarterly (Q) via License Amendment 102/101, but the Note was not revised nor was it shown as applicable to Functional Unit 3.c.4). DC ALL-002
02-36	~~M~~ LS66 49	This change revises the APPLICABILITY of Functional Unit 7 to require OPERABILITY when the associated DG is required to be OPERABLE by LCO 3.8.2 of the ITS. INSERT 2-36. This change is consistent with NUREG-1431. Q 2-36
02-37	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-38	LS35	Delete MODE 4 APPLICABILITY from the Manual Initiation of MSIVs since the valves are not required to be OPERABLE in MODE 4 per CTS 3.7.1.5 or ITS 3.7.2.
02-39	LG	Move valve numbers in CTS ACTION 18 dealing with containment ventilation isolation to the Bases, consistent with NUREG-1431.
02-40	A	This administrative change affects the manner in which the CTS 4.0.4 exception for testing the TDAFW pump is presented. The exception allows entry into MODE 3 to perform the TDAFW pump response time testing. In NUREG-1431, the CTS 4.0.4 exception from [CTS 3.7.1.2 has been interpreted so that it allows response time testing to be deferred as] is reflected in the ITS SR 3.3.2.10 NOTE.

[illegible]

Insert for Q 2-36

Enclosure 3A page 17
Insert 2-36

Requiring the undervoltage 4.16 kV bus transfer to be OPERABLE when the DG is not required to be OPERABLE by LCO 3.8.2 does nothing to accomplish the intended safety function.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
02-33 A Not used.	~~ACTION Statements 27a and 34a of CTS Table 3.3-3 are revised to delete information regarding the loss of one MSFIS channel since no restoration activity is required. See also CN 1-43-A. CTS Table 3.3-3 is revised to correct the implication that the MSFIS PLCs are associated with, or a part of, the SSPS. System design is described in the ITS 3.3.2 Bases. CTS Table 4.3-2 is revised to show that the quarterly SR is actually an Actuation Logic Test of the MSFIS PLC logic, initiated from the SSPS slave relays.~~	~~No, not in CTS.~~ NA	~~No, not in CTS.~~ NA	~~No, not in CTS.~~ NA	~~Yes~~ NA CA 3.3-009
02-34 LS34	ACTION Statement 19 of CTS Table 3.3-3 Functional Units 8a and 8b is revised to require an inoperable loss of power channel to be placed in trip within 6 hours and an allowance to be bypassed for surveillance testing for up to 4 hours is added rather than the current 1 hour and 2 hours, respectively. This is consistent with ISTS 3.3.5 Condition A.	No, maintained CTS.	No, can not bypass these channels.	Yes	Yes
02-35 A	Note (2) of DCPP CTS Table 4.3.2 is revised. The testing frequency was relaxed from monthly (M) to quarterly (Q) via License Amendment 102/101 but the note was not revised.	Yes	No	No	No
02-36 ~~M~~ LS49	This change revises the APPLICABILITY of Functional Unit 7 to require operability when the associated DG is required to be OPERABLE by LCO 3.8.2 of the ITS. only	Yes	No, see CN 2-32-LS-23.	No, see CN 2-18-LS-31.	No, see CN 2-18-LS-31. Q 2-36

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

V. Recurring No Significant Hazards Considerations - "TR"

[illegible]

Insert for Q 2-36

Enclosure 4
Insert NSHC LS49

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS49
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

CTS Functional Unit 7, "Loss of Power (4.16 kV emergency Bus Undervoltage)", requires this function to be OPERABLE in MODES 1 through 4. NUREG-1431 recognizes that if the DG is inoperable, there is no need to require the Loss of Power/Undervoltage transfer to be OPERABLE since the bus has no OPERABLE emergency power source for transfer of the emergency loads. Thus NUREG-1431 only requires the Loss of Power/Undervoltage transfer to be OPERABLE when the DG is required to be OPERABLE.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the APPLICABILITY of the Loss of Power Undervoltage bus transfer associated with an inoperable DG. The proposed change in the Applicability will not affect any of the analysis assumptions for any of the accidents previously evaluated. The proposed change will not affect the probability of any event initiators, nor will the

[illegible]

proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change in the APPLICABILITY will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS49" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2-38 **APPLICABILITY:** DC

REQUEST:

For DCPP, delete MODE 4 Applicability from the manual initiation of MSIVs since the valves are not required to be OPERABLE in MODE 4 per CTS 3.7.1.5 or ITS 3.7.2.

Comment: LS-35 discusses why the Mode 4 requirement for Manual Initiation of MSIVs is not consistent with CTS and iSTS. Provide additional discussion evaluating changes to the CTS SRs and Action requirements that result from eliminating Mode 4 Manual Initiation requirements.

FLOG RESPONSE: The CTS ACTION Statement associated with the manual initiation of the MSIVs is ACTION 24. CTS ACTION 24 requires that the manual valve initiation be repaired in 48 hours or that the affected valve be declared inoperable and the ACTION requirements of CTS LCO 3.7.1.5 be taken. There are no changes to these ACTION requirements due to the deletion of MODE 4 APPLICABILITY since CTS LCO 3.7.1.5 is only applicable for MODES 1 through 3. There are no changes to the surveillances due to the deletion of MODE 4 APPLICABILITY since the CTS, via Table 4.3-2 Functional Unit 4.a., only requires the surveillance to be current in MODES 1 through 3.

ATTACHED PAGES:

Encl. 4 56

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS35
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

The Applicable Modes or Other Specified Conditions in the CTS include Mode 4 for the manual initiation of Steam Line Isolation. However, neither the CTS 3.7.1.5 Main Steam Isolation Valves nor NUREG-1431 ITS 3.7.1.2 requires the valves to be OPERABLE in MODE 4. In MODE 4, the Steam Generator energy is low and requiring the manual initiation circuitry to be OPERABLE without the valves being OPERABLE ~~serves no purpose.~~ Therefore, the MODE 4 OPERABILITY requirement has been deleted.

INSERT LS 35 Q 2-38

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> *1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> *2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> *3. Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The CTS do not require the MSIVs to be OPERABLE in MODE 4. There is no change in the Operability requirements of the MSIVs; therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change in Applicability will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

[illegible]

Insert for Q 2-38

Enclosure 4 page 56
Insert LS35

The CTS ACTION Statement associated with the manual initiation of the MSIVs is ACTION 24. CTS ACTION 24 requires that the manual valve initiation be repaired in 48 hours or that the affected valve be declared inoperable and the ACTION requirements of CTS LCO 3.7.1.5 be taken. There are no changes to these ACTION requirements due to the deletion of MODE 4 APPLICABILITY since CTS LCO 3.7.1.5 is only applicable for MODES 1 through 3. There are no changes to the surveillances due to the deletion of MODE 4 APPLICABILITY since the CTS, via Table 4.3-2 Functional Unit 4.a., only requires the surveillance to be current in MODES 1 through 3.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2-40 **APPLICABILITY:** DC, CP, WC

REQUEST:

This administrative change affects the manner in which the current TS 4.0.4 exception for testing the TDAFW pump is presented. This exception allows entry into MODE 3 to perform the turbine driven auxiliary feedwater pump response time testing. In NUREG-1431, Rev. 1, the current TS 4.0.4 exception from [Table 3.3-2, Notation d and Section 4.7.1.2.b.2)] is reflected in the ITS SR 3.3.2.10 notes.

Comment: The CN states that a note is added to the turbine driven auxiliary feed pump response time testing based on the existing 4.0.4 exception. It does not appear that CTS 4.3.2.2 includes a 4.0.4 exception for this function. Therefore the justification is unacceptable and the classification should be LS rather than A.

ITS 3.3.2.10 translates CTS notation that allow s LCO 4.0.4 exception using a time period after entry into the applicable mode that the SR must be met. Provide justification for the explicit 24 hour interval and SG pressure allowances given in the note to SR 3.3.2.10.

FLOG RESPONSE: ESF response time testing requires verification that each auxiliary feedwater pump starts as designed automatically upon receipt of an Auxiliary Feedwater Actuation test signal. However, for the turbine-driven auxiliary feedwater pump (TDAFP), an exception to Specification 4.0.4 is provided for entry into MODE 3. This exception is provided because in MODE 4, there is insufficient steam pressure to drive the TDAFP. The exception is converted into the ITS format via the NOTE to ITS SR 3.7.5.2 by specifying appropriate conditions (e.g. main steam pressure and a reasonable time for completion of the surveillance). FOR WCGS, the CTS 4.0.4 exception is applied to the TDAFP start instrumentation; however, the explicit allowances for the minimum steam pressure and maximum time allowed to complete the surveillance is not explicitly stated. Because it is necessary to start the TDAFP to determine its response time, this same note is applied to the required RESPONSE TIME TESTING surveillance for the ESF instrumentation that starts the TDAFP. All other surveillances associated with the TDAFP start instrumentation are required to be current.

ATTACHED PAGES:

None.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3-01 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

The requirements of this specification [CTS 3.3.3] are moved to separate specifications in the improved TS. The RCS leakage detection requirements are moved to improved TS 3.4.15. [The fuel building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [ ]

Comment: {WC} CTS T3.3-6 (F1.a) ### alarm/setpoint is moved to ODCM. Also CTS Action 26 modified to include ITS Action A 4 hour repair allowance. These changes are neither identified nor evaluated. Provide a less restrictive justification and a revised CTS markup.

{WC, CW} Several CTS Action 30 changes are not evaluated. The CTS requires operation of the Emergency Exhaust System within 72 hours. The ITS uses FBVIS mode. The CTS requires maintaining Fuel Building at a negative pressure. This requirement is deleted without discussion.

{CW} Several CTS Action 38 changes are not evaluated. The use of CRVIS mode to replace the CTS recirculation mode. The shutdown to Modes 3 & 5 or the addition of the requirement to suspend CORE ALTERATIONS when in Modes 5 & 6 when this is not included in the ITS applicability. Provide justifications for all changes to the CTS.

The DOC does not provide specific justification for providing a no channels OPERABLE conditions or for the actions required in that condition. Furthermore, this is not an administrative change.

FLOG RESPONSE: The first portion of first comment is concerning the ### notation in Table 3.3-6 is addressed in the response to Comment Number Q 3.3-32. The second portion of the first comment is addressed by revising CTS Action 26 utilizing DOC 3-11-M which was used by CPSES to make an equivalent change. Reference 5 in the WCGS cover letter indicated that DOC 3-11-M was acceptable.

The second comment and the portion of the third comment dealing with system lineup nomenclature were discussed during meetings with NRC staff between September 15 and September 18, 1998. These are the same comments resolved under Comment Number Q 3.3-80 in those meetings.

In response to the third comment, new DOC 3-18-M has been generated to discuss more restrictive requirements added to CTS ACTIONS 30 and 38 for Callaway and ACTIONS 27 and 30 for WCGS.

The last comment is incorrect in stating the DOC should address a provision for no channels OPERABLE. Current ACTIONS 30 and 38 for Callaway and Actions 27 and 30 for WCGS already have a 1 hour HVAC system lineup action for no channels OPERABLE and the mark-up retains that Completion Time.

[illegible]

For CPSES and DCPP, the last comment does not apply (see DOCs 3-13-M and 3-15-M respectively).

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3-02 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.

Comment: Evaluate how the CTS requirement changes for each use in the ITS. The 4-hour AOT for setpoint adjustment appears to be extended. How can it be that a TS is deleted (moved to the Bases) and the justification is more restrictive. This change should be documented based on how the ITS treats a channel with the setpoint not met.

FLOG RESPONSE: DOC 3-02 M is revised to indicate that the CTS action that permitted adjusting the setpoint to within the limit within 4 hours is deleted. As discussed in the ITS B 3.3.7 Actions Bases, if the Trip Setpoint is less conservative than the tolerance specified by the calibration procedure, the channel must be declared inoperable immediately and the appropriate condition entered. DOC 3-02-M is revised to state:

"CTS 3.3.3.1, Action [a] is revised to delete the 4 hour allowance to adjust the radiation monitoring channel Alarm/Trip Setpoint if the setpoint value has been exceeded. The CTS allowed a 4 hour window in which to adjust the Trip Setpoint to within limits before declaring the channel inoperable and taking the appropriate Action specified in the Table. NUREG-1431, requires declaring the channel inoperable immediately and entering the appropriate Condition if the Trip Setpoint is less conservative than the tolerance specified in calibration procedures. The proposed change is considered a more restrictive change which reduces plant operational flexibility."

ATTACHED PAGES:

Encl. 3A 18

CHANGE NUMBER	NSHC	DESCRIPTION
02-41	~~LS30~~ e	Not ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ used. e CA 3.3-009
02-42	~~LS38~~ e	Not ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B)~~ used. e CA 3.3-002
02-43	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-44	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-45	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-46	LS42	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-47	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-48	~~LS28~~ e	Not used. e DC 3.3-001 ~~A new Action 15 is added and applied to Functional Unit 7. a. 2) and 7. b. 1) that allows the affected Emergency Diesel Generator to be declared inoperable and requires entry into Specification 3.8.1.1 when more than one relay per bus is inoperable. Current ACTION 16 does not address the above situation and requires entry into LCO 3.0.3. This change is consistent with NUREG-1431.~~ Q 3.3-63 Q 3.3-79 Q 2-08 INSERT 2-50-LG INSERT 2-51 LG INSERT 2-56-LS48
03-01	A	The requirements of this specification [CTS 3.3.3.1] are moved to [four] separate specifications in the improved TS. The RCS Leakage Detection requirements are moved to improved TS 3.4.15. [The Fuel Building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [The Containment Ventilation Isolation requirements are moved to improved TS 3.3.6.]
03-02	M	~~The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.6-1, 3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.~~ e Q 3-02 INSERT 3-02-M
03-03	LG	The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10CFR70.24; however, there is no requirement for [them] to be in the Technical Specifications [as criticality monitors. They are retained, however, as initiators of the Iodine Removal mode of the FHBVS for a fuel handling accident until RM-~~44A~~ 45A and ~~44B~~ 45B are installed in accordance with License Amendment 70/69]. Since Part 70 is invoked in the operating license, these monitors will be retained in the plant design. INSERT 3-03 DC ALL-002 Q 3-03

[illegible]

Insert for Q 3-02

Enclosure 3A page 18
Insert 3-02-M

CTS 3.3.3.1, Action [a] is revised to delete the 4 hour allowance to adjust the radiation monitoring channel Alarm/Trip Setpoint if the setpoint value has been exceeded. The CTS allowed a 4 hour window in which to adjust the Trip Setpoint to within limits before declaring the channel inoperable and taking the appropriate Action specified in the Table. NUREG-1431, requires declaring the channel inoperable immediately and entering the appropriate Condition if the Trip Setpoint is less conservative than the tolerance specified in calibration procedures. The proposed change is considered a more restrictive change which reduces plant operational flexibility.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3-03 **APPLICABILITY:** DC, WC, CA

REQUEST:

The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10 CFR 70.24; however, there is no requirement for [them] to be in the technical specifications [nor do they meet any of the four criteria for inclusion in the ITS].

Comment: It is not clear that DOC 03-03-LG is referring to a change to the CTS. This DOC appears to relate to notes *a_ and *b) which appear to be already in the CTS. How does DOC 03-03-LG related to the tech spec conversion? If notes (a) and (b) are changes to the CTS, they need to be identified as such and more fully justified. If changes are moved outside of TS to a licensee controlled document then provide a Arelocated@ evaluation for changes not meeting 10 CFR 50.36.

FLOG RESPONSE: For WCGS and Callaway, DOC 03-03-LG is specifically related to CTS Table 3.3-6, Functional Unit 2.b., Criticality High Radiation Level, and associated Table notation "*". The change (DOC 03-03-LG) moves the criticality monitoring functional unit and associated requirements to the USAR/FSAR. DOC 03-03-LG is revised to add the following information:

"[For DCPP, Section 9.1 of the updated FSAR indicates that DCPP is exempt from the requirements of 10 CFR 70.24. This exemption is due to the design of the spent fuel storage racks, new fuel storage racks, the fuel handling equipment, and the administrative controls that exist to maintain subcriticality under normal and accident conditions.] As such, the requirements associated with the criticality functional unit are not required to be in the TS to provide adequate protection of the public health and safety. The licensee-controlled documents containing the moved requirements will be maintained using the provisions of 10 CFR 50.59. Therefore, the descriptive information that has been moved continues to be maintained in an appropriately controlled manner."

For DCPP, the requirements of notes * and ** of CTS 3.3.3.1 are directly related to their function as "criticality monitors" as originally required by 10 CFR 70.24. The criticality monitor requirement is removed, but the monitors are retained in the TS since these monitors also function to transfer the Fuel Handling Building Ventilation system to the Iodine Removal mode of operation. Note ** is revised to incorporate the applicability requirements associated with the movement of irradiated fuel in the fuel handling building that have always existed, but were enveloped by the criticality monitor requirement.

ATTACHED PAGES:

Encl. 3A 18

CHANGE NUMBER	NSHC	DESCRIPTION
02-41	~~LS30~~ e	Not ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ used. e CA 3.3-009
02-42	~~LS38~~ e	Not ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B)~~ used. e CA 3.3-002
02-43	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-44	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-45	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-46	LS42	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-47	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-48	~~LS28~~ e	Not used. ~~A new Action 15 is added and applied to Functional Unit 7. a. 2) and 7. b. 1) that allows the affected Emergency Diesel Generator to be declared inoperable and requires entry into Specification 3.8.1.1 when more than one relay per bus is inoperable. Current ACTION 16 does not address the above situation and requires entry into LCO 3.0.3. This change is consistent with NUREG-1431.~~ e DC 3.3-001 Q 3.3-63 Q 3.3-79 Q 2-08
INSERT 2-50-LG INSERT 2-51 LG INSERT 2-56-LS48		
03-01	A	The requirements of this specification [CTS 3.3.3.1] are moved to [four] separate specifications in the improved TS. The RCS Leakage Detection requirements are moved to improved TS 3.4.15. [The Fuel Building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [The Containment Ventilation Isolation requirements are moved to improved TS 3.3.6.]
03-02	M	~~The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.6-1, 3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.~~ e INSERT 3-02-M Q 3-02
03-03	LG	The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10CFR70.24; however, there is no requirement for [them] to be in the Technical Specifications [as criticality monitors. They are retained, however, as initiators of the Iodine Removal mode of the FHBVS for a fuel handling accident until RM-~~44A~~ 45A and ~~44B~~ 45B are installed in accordance with License Amendment 70/69.] Since Part 70 is invoked in the operating licens~~e~~, these monitors will be retained in the plant design. INSERT 3-03 DC ALL-002 Q 3-03

[illegible]

Insert for Q 3-03

Enclosure 3A page 18
Insert 3-03

"[For DCPP, Section 9.1 of the updated FSAR indicates that DCPP is exempt from the requirements of 10 CFR 70.24. This exemption is due to the design of the spent fuel storage racks, new fuel storage racks, the fuel handling equipment, and the administrative controls that exist to maintain subcriticality under normal and accident conditions.] As such, the requirements associated with the criticality functional unit are not required to be in the TS to provide adequate protection of the public health and safety. The licensee-controlled documents containing the moved requirements will be maintained using the provisions of 10 CFR 50.59. Therefore, the descriptive information that has been moved continues to be maintained in an appropriately controlled manner.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3-05 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

ACTION Statement [38] for the [Control Room Air Intake] [and ACTION Statement [30] for the [Fuel Building Exhaust]] radiation monitors have extended Completion Times, from [72 hours] to 7 days for one required channel inoperable.

Comment: Insufficient information is provided to justify extending the allowed outage time for one CRVS channel inoperable from [1][48][72] hours to 7 days. If the system arrangement is such that each instrument channel is dedicated to a single CRVS train (one-out-of -one starts one train), then the effect of a single inoperable instrument channel is similar to that of an inoperable mechanical train and the extended AOT may be acceptable. If, however, the two channels are used in a one-out -of-two logic start both CRVS channels, a single inoperable instrumentation channel degrades the operability of both mechanical trains and the justification provided for the 7 day AOT is not germane.

FLOG RESPONSE: The response to this comment is addressed under Comment Number Q 2-16 for Callaway, CPSES, and WCGS.

For DCPP, the control room is common to both units. The normal air intakes are separate, but are in close proximity to each other. There is one train of control room ventilation for each unit. The pressurization air intakes are at opposite ends of the turbine building. There are two radiation monitors at each normal air intake either of which will initiate the opposite units pressurization system. The system is designed so that if radiation is detected at one units normal air intake due to a LOCA or other design basis event, the system starts the opposite units pressurization fans which take suction from the end of the opposite units turbine building. With this arrangement, a single monitor can be out of service without effecting the operability of the ventilation train. Loss of the second required monitor renders that train of control room pressurization inoperable. The loss of the radiation monitors for a single train only effects that train, thus it would be similar to a mechanical failure rendering a single train inoperable. Since the loss of the required radiation monitor would be equivalent to a mechanical failure, the allowed outage time of 7 days permitted by CTS 3.7.5.1 and LCO 3.7.10 of NUREG-1431 for inoperability of a single train of ventilation is appropriate for loss of one train's required radiation monitor. LS14 has been revised to include this system description and justification for the 7 day AOT.

In addition to the above, DCPP submitted a version of NSHC LS14 authored by one of the other FLOG members. The corrected copy is attached.

ATTACHED PAGES:

Encl. 3A	19
Encl. 4	37

CHANGE NUMBER	NSHC	DESCRIPTION
03-04	M	This change adds the APPLICABILITY for movement of irradiated fuel assemblies consistent with NUREG-1431. The CTS APPLICABILITY of "All" MODES does not cover the movement of irradiated fuel assemblies when the core is offloaded.
03-05	LS14	ACTION Statement [34] for the [Control Room Air Intake] [ ] radiation monitors have extended Completion Times, from [1 hour] to 7 days for one required channel inoperable, consistent with NUREG-1431. INSERT 3-05-LS14 Q 3-05
03-06	A	ACTION [c] of CTS LCO 3.3.3.1 is revised to state the Specification 3.0.3 exception is [retained only for the Fuel Handling Building Radioactivity Instrumentation]. ITS 3.3.6 DC 3.3-Ed The LCO 3.0.3 exception is not needed in ITS 3.3.7 or ITS 3.4.15 since Required Actions are provided with the appropriate remedial DC 3.3-Ed measures for all combinations of failures, including shutdown actions, or reference is made to the associated plant system TS for the systems affected by the inoperability of the DC 3.3-Ed radiation monitors. [ ]. DC ALL-002
03-07	LS16	The APPLICABILITY for the Fuel [Handling] ~~Building Exhaust~~ radiation monitors has been revised to read "during movement of irradiated fuel assemblies in the fuel [handling] building." [The REQUIRED CHANNELS for Instrument 1.b. has been revised from one as specifed by the CTS to two as specifed by NUREG-1431 to provide protection against a single failure that could prevent the transfer of the FHBVS to the iodine removal mode.]
03-08	M	The CTS have been revised to include manual initiation of the fuel handling building and manual and automatic initiation of the control room pressurization system. These systems are not classified as ESF functions in the CTS even though CTS DC ALL-002 surveillance 4.7.5.1e.2) requires that the CRVS automatically switches to the pressurization mode on a Phase "A" signal. The FHBVS is not an ESF function since its only function is to Q 3.3-08 mitigate a fuel handling accident. This revision incorporates the automatic Actuation ~~Logic, Master Relay, and Slave~~ Relay Tests included in NUREG-1431 for the CRVS and the TADOT for the manual actuation of both systems. The automatic Logic and Master Relay Actuation tests are conducted as part of the CTS, and the via the Slave Relay Tests CRVS relay tests are currently performed even though not specifically called out in the CTS. of the ESFAS testing of Function 1.b. and 3.a.(2)
03-09	LS-24	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-10	LG	The DCPP descriptive information related to the Required Channels per normal intake is moved to the Bases.

[illegible]

Insert for Q 3-05

Enclosure 3A page 19
Insert 3-05-LS14

[The AOT is also consistent with the AOT of CTS 3.7.5.1 for one train of ventilation inoperable. Since the loss of the required monitor does not effect the other ventilation train, the situation is equivalent.]

Q 3-05

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS14
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

pressurization 34 has 34

ACTION Statement[~~s~~] [~~30 and 39~~] in current TS Table [3.3-6] for the [~~Fuel Building Radioactivity monitors and~~] Control Room Air Intake ~~Gaseous~~ Radioactivity monitor[~~s~~] ~~have~~ been revised to allow 7 days for restoration of an inoperable channel prior to isolation of the normal ventilation systems and initiation of the [~~ESF~~] HVAC system[~~s~~]. The current allowed outage time (AOT) for [~~both~~] ACTION Statement[~~s~~] is [~~72 hours~~]. The 7 day AOT for one channel inoperable is the same as that allowed by the ACTION Statement[~~s~~] of current TS LCO[~~s 3.7.6 and 3.7.7~~] 3.7.5.1 for one train of the mechanical portion of the [~~ESF~~] HVAC system inoperable. INSERT 3-05-LS14a

I have

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Required

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the AOT associated with an inoperable radiation monitor channel in the [~~ESF~~] HVAC system[~~s~~] for the [~~fuel building and~~] control room. The proposed change in the AOT will not affect any of the analysis assumptions for any of the accidents previously evaluated. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Mechanical portions of the systems can be inoperable, rendering one train inoperable, for up to 7 days. Therefore, this AOT change has effectively been approved by the precedent established in the plant systems TS. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

[illegible]

[illegible]

Insert for Q 3-05

Enclosure 4 page 37
Insert 3-05-LS14a

[The DCPP control room is common to both units. The normal air intakes are separate, but are in close proximity to each other. There is one train of control room ventilation for each unit (which contains redundant components). The pressurization air intakes for the control room ventilation system are at opposite ends of the turbine building. There are two radiation monitors at each normal air intake either of which will initiate the opposite units pressurization system. The system is designed so that if radiation is detected at one units normal air intake due to a LOCA or other design basis event, the system starts the opposite units pressurization fans which take suction from the end of the opposite units turbine building. With the redundant monitor arrangement, a single monitor can be out of service without effecting the operability of the ventilation train. Loss of the second required monitor renders that train of control room pressurization inoperable. The loss of the radiation monitors for a single train only effects that train, thus it would be similar to a mechanical failure rendering a single train inoperable. Since the loss of the required radiation monitor would be equivalent to a mechanical failure, the allowed outage time of 7 days permitted by CTS 3.7.5.1 and LCO 3.7.10 of NUREG-1431 for inoperability of a single train of ventilation is appropriate for loss of one train's required radiation monitor.]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3-08 **APPLICABILITY:** DC

REQUEST:

The DCPP CTS have been revised to include manual initiation of the fuel handling building and automatic initiation of the control room pressurization system. These systems are not classified as ESF functions in the CTS. This revision incorporates the Actuation Logic, Master Relay, and Slave Relay Tests included in NUREG-1431 for the CRVS and the TADOT for the manual actuation of both systems.

Comment: Provide documentation to show staff acceptance of actuation relay logic, master and slave relay testing proposed for the ITS. Where necessary, provide additional justification based on CTS limits that are changed.

FLOG RESPONSE: The reference to Automatic Actuation Logic is deleted from Function 2 of Table 3.3.7-1, since the radiation monitor actuation of the CRVS pressurization system is via direct actuation of the CRVS relays without going through the SSPS. The SI (via Phase A) actuation of the CRVS pressurization system is via the SSPS and those relays are verified OPERABLE via the ESFAS Actuation Logic and Master Relay Tests. DOC 3-08-M is revised to clarify the CRVS instrumentation interface with the SSPS. In addition, the surveillances for the ACTUATION LOGIC TEST (ALT) and MASTER RELAY TEST (MRT) are deleted via new JFD 3.3-144, since these tests are performed via the ESFAS ALT and MRT. SR 3.3.7.5 is retained to verify the OPERABILITY of the CRVS actuation relays as initiated via the CRVS intake radiation monitors. The ITS Bases for 3.3.7 and 3.3.2 have been clarified to note that a safety injection (SI) signal does not directly initiate CRVS transfer to pressurization, but that the SI signal initiates Phase A, and Phase A directly initiates CRVS transfer to pressurization. The Bases for ITS 3.3.2 has been clarified to note that the Slave Relay Testing is a test of the CRVS radiation monitor pressurization system actuation relays and does not go through the SSPS. The Bases for SR 3.3.7.5 has been revised to note the above and delete the SSPS SLAVE RELAY TEST details.

ATTACHED PAGES:

Encl. 2	3/4 3-37 and 3/4 3-39
Encl. 3A	19
Encl. 3B	24 of 31
Encl. 5A	3.3-72 and 3.3-73
Encl. 5B	B 3.3-72, B 3.3-172, B 3.3-174, B 3.3-175, B 3.3-176, B3.3-179, and B 3.3-180
Encl. 6A	10 via Q 3-LS GEN response; Insert 6A table.
Encl. 6B	21 of 21 via Q 3-LS GEN response; Insert 6B Table.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

INSTRUMENT	MINIMUM REQUIRED CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	ACTION
1. Fuel Handling Building				
(New) Manual	2	**	NA	32**
a. Storage Area				
1) Spent Fuel Pool	1	***	≤ 75 mR/hr	30 & 32** (a)
2) New Fuel Storage	1	***	≤ 15 mR/hr	30 & 32* (a)
b. Gaseous Activity Fuel Handling Building Ventilation Mode Change (b)	~~1~~2	***	Per the ODCP	32**
2. Control Room Ventilation Mode Change	2***	All, and during movement of irradiated fuel assemblies		34, 36
a. Manual Initiation	2		NA	
b. Automatic Actuation Logic and Actuation Relays a	2		NA	
c. Control Room Atmosphere Intake Radiation Monitors	~~2~~ strike out		≤ 2 mR/hr	
3. Containment				
a. Gaseous Activity				
1) Deleted				
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31
3) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	1	~~6~~ during CORE ALTERATIONS; and during movement of irradiated fuel assemblies in containment	Per the ODCP	33, 37
b. Particulate Activity				
1) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	1	~~6~~ during movement of irradiated fuel assemblies in containment	Per the ODCP	33, 37
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31

~~*With fuel in the spent fuel pool or new fuel storage vault.~~

**~~With irradiated fuel in the spent fuel pool.~~ During movement of irradiated fuel assemblies in the fuel handling building.

~~***One channel for each normal intake to the Control Room Ventilation System (common to both units).~~

~~(a)Action 32 is not applicable to the Fuel Storage Area Monitors following installation of RM-45A and 45B.~~

~~(b)The requirements for Fuel Handling Building Ventilation Mode Change are applicable following installation of RM-45A and 45B.~~

Q 3.3-82
DC 3.3-E1
Q 2.05(3.3)
Q 3.3-79
Q 2-05(3.3)
Q 3.3-79

01-43-A
03-01-A
03-08-M
03-21-LS52
03-03-LG
03-07-LS16
03-07-LS16
03-21-LS52
03-01-A
03-04-M
03-08-M
03-15-M
Q 3-08
03-10-LG
03-01-A
03-22-LS20
Q 3.3-79
03-01-A
02-05-M
03-14-LS29
02-51-LG
02-05-M
03-14-LS29
02-51-LG
03-01-A
03-03-LG
03-07-LS16
03-10-LG
~~03-01-A~~
03-01-A
03-21-LS52
Q 3.3-82

RADIATION MONITORING INSTRUMENTATION ... PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

	CHANNEL CHECK	CHANNEL CALIBRATION	ACTUATION LOGIC TEST	A D O T	CHANNEL FUNCTIONAL TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~	01-44-A
1. Fuel Handling Building									03-01-A
(New) Manual	NA	NA	NA	R(d)	NA	NA	NA		03-08-M
a. Storage Area									
1) Spent Fuel Pool	S	R	NA	NA	Q	NA	NA	*	
2) New Fuel Storage	S	R	NA	NA	Q	NA	NA	*	
b. Gaseous Activity									
Fuel Handling Building Ventilation Mode Change(a)	S	R	NA	NA	Q	NA	NA	*	03-21-LS52 Q 3-3-82
2. Control Room Ventilation Mode Change	S	R			Q			All	03-01-A
a. Manual Initiation	NA	NA	NA	R(d)	NA	NA	NA		03-08-M
b. Automatic Actuation Logic and Actuation Relays	NA	NA	~~M(b)~~	NA	NA	~~M(b)~~	R		Q 3-08
c. Control Room Atmosphere Air Intake Radiation Monitors	S	R	NA	NA	Q	NA	NA		DC 3.3-Ed
3. Containment									
a. Gaseous Activity									
1) Deleted									
2) RCS Leakage	S	R	NA	NA	Q	NA	NA	~~1, 2, 3, 4~~	DC ALL-005 03-01-A
3) Containment Ventilation Isolation	S	R 24	NA	NA	Q	NA	NA	6	
~~(RM-44A or 44B)~~	S	R			Q				02-51-LG
b. Particulate Activity									Q 3.3-79
1) Containment Ventilation Isolation	S	R 24	NA	NA	Q	NA	NA	6	DC ALL-002
~~(RM-44A or 44B)~~		Add Redline							02-51-LG
2) RCS Leakage	S	R	NA	NA	Q	NA	NA	~~1, 2, 3, 4~~	03-01-A 03-21-LS52

~~* With fuel in the spent fuel pool or new fuel storage vault.~~ 03-03-LG

~~(a) The requirements for Fuel Handling Building Ventilation Mode Change are applicable following installation of RM-45A and 45B.~~ Q 3.3-82 03-01-A

(New) (b) Each train shall be tested at least once every 62 days on a STAGGERED TEST BASIS. 03-08-M

(New) (c) Verification of setpoint is not required. 31 03-08-M

DC 3.3-Ed

CHANGE NUMBER	NSHC	DESCRIPTION
03-04	M	This change adds the APPLICABILITY for movement of irradiated fuel assemblies consistent with NUREG-1431. The CTS APPLICABILITY of "All" MODES does not cover the movement of irradiated fuel assemblies when the core is offloaded.
03-05	LS14	ACTION Statement [34] for the [Control Room Air Intake] [ ] radiation monitors have extended Completion Times, from [1 hour] to 7 days for one required channel inoperable, consistent with NUREG-1431. INSERT 3-05-LS14 Q 3-05
03-06	A	ACTION [c] of CTS LCO 3.3.3.1 is revised to state the Specification 3.0.3 exception is [retained only for the Fuel Handling Building Radioactivity Instrumentation]. The LCO 3.0.3 exception is not needed in ITS 3.3.7 or ITS 3.4.15 since Required Actions are provided with the appropriate remedial measures for all combinations of failures, including shutdown actions, or reference is made to the associated plant system TS for the systems affected by the inoperability of the radiation monitors. [ ]. ITS 3.3.6 DC 3.3-Ed DC 3.3-Ed DC 3.3-Ed DC ALL-002
03-07	LS16	The APPLICABILITY for the Fuel [Handling] ~~Building Exhaust~~ radiation monitors has been revised to read "during movement of irradiated fuel assemblies in the fuel [handling] building." [The REQUIRED CHANNELS for Instrument 1.b. has been revised from one as specifed by the CTS to two as specifed by NUREG-1431 to provide protection against a single failure that could prevent the transfer of the FHBVS to the iodine removal mode.]
03-08	M	The CTS have been revised to include manual initiation of the fuel handling building and manual and automatic initiation of the control room pressurization system. These systems are not classified as ESF functions in the CTS even though CTS surveillance 4.7.5.1e.2) requires that the CRVS automatically switches to the pressurization mode on a Phase "A" signal. The FHBVS is not an ESF function since its only function is to mitigate a fuel handling accident. This revision incorporates the automatic Actuation ~~Logic, Master Relay, and Slave~~ Relay Tests included in NUREG-1431 for the CRVS and the TADOT for the manual actuation of both systems. The Automatic Actuation Logic and Master Relay CRVS tests are conducted as part of the CTS, and the relay tests are currently performed via the Slave Relay Tests of the ESFAS testing of Function 1.b, and 3.a.(2) even though not specifically called out in the CTS. DC ALL-002 Q 3.3-08
03-09	LS-24	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-10	LG	The DCPP descriptive information related to the Required Channels per normal intake is moved to the Bases.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
03-05 LS14	ACTION Statement [34] for the [Control Room Air Intake] [ ] radiation monitors have extended Completion Times, from [1 hour] to 7 days for one required channel inoperable.	Yes	Yes	Yes	Yes
03-06 A	ACTION [c] of CTS LCO 3.3.3.1 is revised to state the Specification 3.0.3 exception is [retained only for the Fuel Handling Building Radioactivity Instrumentation].	Yes	Yes	Yes	Yes DC ALL-002
03-07 LS16	The Applicability for the Fuel [Handling] Building Exhaust radiation monitors has been revised to read "during movement of irradiated fuel assemblies in the fuel [handling] building." [The REQUIRED CHANNELS for Instrument 1.b. has been revised from one as specifed by the CTS to two as specifed by NUREG-1431 to provide single failure protection.]	Yes	No, not in CTS.	Yes	Yes
03-08 M	The DCPP CTS have been revised to include manual initiation of the fuel handling building and automatic initiation of the control room pressurization system. These systems are not classified as ESF functions in the CTS. This revision incorporates the automatic Actuation ~~Logic, Master Relay, and Slave~~ Relay Tests via the Slave Relay Tests included in NUREG-1431for the CRVS and the TADOT for the manual actuation of both systems.	Yes	No	No	No Q 3-08
03-09 LS24	The CPSES Surveillance frequency for the performance of a CHANNEL OPERABILITY TEST for the radiation monitoring instrumentation channels would be extended from once per 31 days to once per 92 days. This change is consistent with the ITS.	No	Yes	No	No
03-10 LG	The DCPP descriptive information related to the Required Channels per normal intake is moved to the Bases.	Yes	No	No	No

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.7.3	~~Perform ACTUATION LOGIC TEST.~~ Not Used	~~31 days on a STAGGERED TEST BASIS~~ Q 3-08 3.3-144
SR 3.3.7.4	~~Perform MASTER RELAY TEST.~~ Not Used	~~31 days on a STAGGERED TEST BASIS~~ Q-3-08 Q 3.3-144
SR 3.3.7.5	Perform SLAVE RELAY TEST.	B-PS ~~[92] days~~ 18 months
SR 3.3.7.6	-----------------------NOTE----------------------- Verification of setpoint is not required. -- Perform TADOT.	B 18 months
SR 3.3.7.7	Perform CHANNEL CALIBRATION.	B 18 months

Table 3.3.7-1 (page 1 of 1)
~~CREFS~~CRVS Actuation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT	3.3-79
1. Manual Initiation	1, 2, 3, 4, 5 6, and (a)	2 trains	SR 3.3.7.6	NA	
2. Automatic Actuation Logic and Actuation Relays	1, 2, 3, 4, 5, 6, and (a)	2 trains	~~SR 3.3.7.3~~ ~~SR 3.3.7.4~~ SR 3.3.7.5	NA	Q 3.3-08 3.3-144 Q 3.3-79 DC 3.3-Ed
3. Control Room Radiation	~~1, 2, 3, 4, 5 6, and (a)~~				
~~a. Control Room~~ Atmosphere Air Intakes	1, 2, 3, 4, 5 6, and (a)	2	SR 3.3.7.1 SR 3.3.7.2 SR 3.3.7.7	≤ 2 mR/hr	3.3-102 B
~~b. Control Room Air Intakes~~		~~[2]~~	~~SR 3.3.7.1~~ ~~SR 3.3.7.2~~ ~~SR 3.3.7.7~~	~~≤ [2] mR/hr~~	3.3-102
4. Safety Injection	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 1, for all initiation functions and requirements.				

(a) During movement of irradiated fuel assemblies.

3.3-79

BASES

- Start of AFW to ensure secondary side cooling capability;
- ~~Isolation of the control room to ensure habitability; and~~
- Transfer of the control room ventilation to ensure habitability;
- Transfer of the auxiliary building ventilation to ensure ventilation cooling to the ESF pumprooms;

DC ALL-002

(continued)

B 3.3 INSTRUMENTATION

B 3.3.7 Control Room ~~Emergency Filtration~~ Ventilation System (~~CREFS~~ CRVS) Actuation Instrumentation

BASES

BACKGROUND

The ~~CREFS~~ CRVS provides an enclosed control room environment from which ~~the~~both units can be operated following an uncontrolled release of radioactivity. ~~During normal operation, the Auxiliary Building Ventilation System provides control room ventilation.~~ Upon receipt of an actuation signal, the ~~CREFS~~ CRVS shifts from normal operation and initiates filtered ventilation and pressurization of the control room. This system is described in the Bases for LCO 3.7.10, "Control Room ~~Emergency Filtration~~ Ventilation System~~.~~" and is common to both units.

The actuation instrumentation consists of redundant radiation monitors in the air intakes ~~and~~ to the control room areas. There are two detectors in each of the two normal control room air intakes. However, since they take suction form a common area, the North and South sides of the mechanical equipment room, only two detectors are required to provide protection against a single failure. A Phase "A" containment isolation signal or a high radiation signal from ~~any~~either of these required detectors in the normal intake will initiate ~~both trains of the CREFS~~ CRVS pressurization from the pressurization intake with the lowest radiation level (each pressurization intake, one on the North end of the turbine building and one on the South, has two radiation monitors). The control room operator can also initiate ~~CREFS~~ CRVS pressurization ~~trains~~ by manual switches in the control room. ~~The CREFS is also actuated by a safety injection (SI) signal. The SI Function is discussed in LCO 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation."~~

INSERT B 3.3.7(3)

INSERT B 3.3.7(1)

Q 3-08

The CRVS has two additional manually selected emergency operating modes; smoke removal and recirculation. Neither of these modes are required for the CRVS to be OPERABLE, but they are useful for certain non-DBA circumstances.

DC 3.3-Ed

DC ALL-002

APPLICABLE SAFETY ANALYSES

The control room must be kept habitable for the operators stationed there during accident recovery and post accident operations.

The ~~CREFS~~ CRVS acts to terminate the supply of unfiltered outside air to the control room, initiate filtration, and pressurize the control room. These actions are necessary to ensure the control room is kept habitable for the operators stationed there during accident recovery and post accident operations by minimizing the radiation exposure of control room personnel.

(continued)

[illegible]

Insert for Q 3-08

Enclosure 5B page b 3.3-172
Insert B 3.3.7 (1)

(The ability to swap the pressurization intakes is an added feature of the system, but was not assumed to be functioning for any accident scenarios, thus it is not required for CRVS OPERABILITY.) However, only the actuation of the pressurization system via a Phase A Isolation signal directly is processed through the SSPS, the actuation of the pressurization system via an atmosphere intake monitor directly actuates the CRVS actuation relays without going through the SSPS.

Insert B 3.3.7 (3)

The opposite units pressurization system (the system selects the opposite unit assuming that pressurization would be the lowest radiation level), or from

BASES

APPLICABLE SAFETY ANALYSES (continued)

~~CORE ALTERATIONS~~), is the primary means to ensure control room habitability in the event of a fuel handling or waste gas decay tank rupture accident. The ~~CREFS~~ CRVS pressurization system actuation instrumentation satisfies Criterion 3 ~~of the NRG Policy Statement~~10 CFR 50.36(c)(2)(ii).

Remove strike out

DC ALL-002

LCO

The LCO requirements ensure that instrumentation necessary to initiate the ~~CREFS~~ CRVS pressurization system is OPERABLE.

1. Manual Initiation

Remove strike out

DC ALL-002

The LCO requires two channels OPERABLE. The operator can initiate the ~~CREFS~~ CRVS pressurization mode at any time by using ~~either of~~ two switches in the control room. This action will cause actuation of all components in the same manner as any of the automatic actuation signals.

The LCO for Manual Initiation ensures the proper amount of redundancy is maintained in the manual actuation circuitry to ensure the operator has manual initiation capability.

~~Each channel consists of one push button and the interconnecting wiring to the actuation logic cabinet.~~

2. Automatic Actuation ~~Logic and Actuation~~ Relays

Q 3-08

The LCO requires two trains of Actuation ~~Logic and~~ Relays OPERABLE to ensure that no single random failure can prevent automatic actuation of the pressurization system.

~~Automatic Actuation Logic and Actuation Relays consist of the same features and operate in the same manner as described for ESFAS Function 1.b., SI, in LCO 3.3.2. The applicable MODES and specified conditions for the CREFS portion of these functions are different and less restrictive than those specified for their SI roles. If one or more of the SI functions becomes inoperable in such a manner that only the CREFS function is affected, the Conditions applicable to their SI function need not be entered. The less~~

DC 3.3-Ed

CRVS

Remove Strike-out

Retain strike out

INSERT B 3.3.7(2)

Q 3-08

or Phase A

OR Phase A

3

(continued)

[illegible]

Insert for Q 3-08

Enclosure 5B page b 3.3-174
Insert B 3.3.7 (2)

The CRVS atmosphere intake monitors actuate the pressurization system directly via the CRVS relays and do not go through the SSPS. The only actuation of the CRVS pressurization mode of operation via the SSPS is via a Phase A signal actuation.

BASES

LCO

2. Automatic Actuation ~~Logic and Actuation~~ Relays (continued) Q 3-08

CRVS

~~restrictive Actions specified for inoperability of the CREFS Functions specify sufficient compensatory measures for this case.~~ Retain Strike out

Remove Strike Out

3. Control Room Radiation

The LCO specifies two required Control Room ~~Atmosphere~~ Normal Intake Radiation Monitors ~~and two required Control Room Air Intake Radiation Monitors at each~~ to ensure that the radiation monitoring instrumentation necessary to initiate the ~~CREFS~~ CRVS pressurization system remains OPERABLE.

~~For sampling systems, channel OPERABILITY involves more than OPERABILITY of channel electronics. OPERABILITY may also require correct valve lineups, sample pump operation, and filter motor operation, as well as detector OPERABILITY, if these supporting features are necessary for trip to occur under the conditions assumed by the safety analyses.~~

Remove Strike Out Q 3-08

~~4. Safety Injection~~

~~Refer to LCO 3.3.2, Function 1, for all initiating Functions and requirements.~~

INSERT B 3.3.7(4)

APPLICABILITY

The ~~CREFS~~ CRVS Functions must be OPERABLE in MODES 1, 2, 3, 4, ~~[and during CORE ALTERATIONS]~~ and movement of irradiated fuel assemblies. The Functions must also be OPERABLE in MODES [5 and 6] when required for a waste gas decay tank rupture accident, to ensure a habitable environment for the control room operators. Q 3.3-79

or a fuel handling or core alteration accident

Q 3.3-79

ACTIONS

The most common cause of channel inoperability is outright failure or drift of the bistable or process module sufficient to exceed the tolerance allowed by the unit specific calibration procedures. Typically, the drift is found to be small and results in a delay of actuation rather

(continued)

[illegible]

Insert for Q 3-08

Enclosure 5B page b 3.3-175
Insert B 3.3.7 (4)

As noted above, a safety injection signal does not directly initiate CRVS pressurization , but a Phase A signal does and Phase A is initiated by SI.

BASES

ACTIONS (continued)

than a total loss of function. This determination is generally made during the performance of a ~~COT~~CFT and/or Channel Calibration, when the process instrumentation is set up for adjustment to bring it within specification. Drift can also be observed during a Channel check or CFT and if observed would prompt action to correct the discrepancy. If the Trip Setpoint is less conservative than the tolerance specified by the calibration procedure, the channel must be declared inoperable immediately and the appropriate Condition entered.

A Note has been added to the ACTIONS indicating that separate Condition entry is allowed for each Function. The Conditions of this Specification may be entered independently for each Function listed in Table 3.3.7-1 in the accompanying LCO. The Completion Time(s) of the inoperable channel(s)/train(s) of a Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

A.1

Condition A applies to the actuation ~~logic~~ train Function of the ~~CREFS~~ CRVS, the radiation monitor channel Functions, and the manual channel Functions. Q 3-08

If one train is inoperable, or one radiation monitor channel is inoperable in one or more Functions, 7 days are permitted to restore it to OPERABLE status. The 7 day Completion Time is the same as is allowed if one train of the mechanical portion of the system is inoperable. The basis for this Completion Time is the same as provided in LCO 3.7.10. If the channel/train cannot be restored to OPERABLE status, one ~~CREFS~~ CRVS train must be placed in the ~~emergency radiation protection~~ pressurization mode of operation. This accomplishes the actuation instrumentation Function and places the unit in a conservative mode of operation.

~~The Required Action for Condition A is modified by a Note that requires placing one CREFS train in the toxic gas protection mode instead of the [radiation protection] mode of operation if the automatic transfer to toxic gas protection mode is inoperable. This ensures the CREFS train is placed in the most conservative mode of operation relative to the OPERABILITY of the associated actuation instrumentation.~~

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.7.1 (continued)

including indication and readability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit.

The Frequency is based on operating experience that demonstrates channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.7.2

A ~~COT~~ CFT is performed once every 92 days on each required channel to ensure the entire channel will perform the intended function. This test verifies the capability of the instrumentation to provide the ~~CREFS~~ CRVS actuation. ~~The setpoints shall be left consistent with the unit specific calibration procedure tolerance.~~ The Frequency is based on the known reliability of the monitoring equipment and has been shown to be acceptable through operating experience.

SR 3.3.7.3

Q 3-08

NOT USED

~~SR 3.3.7.3 is the performance of an ACTUATION LOGIC TEST. The train being tested is placed in the bypass condition, thus preventing inadvertent actuation. Through the semiautomatic tester, all possible logic combinations, with and without applicable permissives, are tested for each protection function. In addition, the master relay coil is pulse tested for continuity. This verifies that the logic modules are OPERABLE and there is an intact voltage signal path to the master relay coils. This test is performed every 31 days on a STAGGERED TEST BASIS. The Frequency is justified in WCAP-10271-P-A, Supplement 2, Rev. 1 (Ref. 1).~~

SR 3.3.7.4

Q 3-08

NOT USED

~~SR 3.3.7.4 is the performance of a MASTER RELAY TEST. The MASTER RELAY TEST is the energizing of the master relay, verifying contact operation and a low voltage continuity~~

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.7.4 (continued)

Q 3-08

~~check of the slave relay coil. Upon master relay contact operation, a low voltage is injected to the slave relay coil. This voltage is insufficient to pick up the slave relay, but large enough to demonstrate signal path continuity. This test is performed every 31 days on a STAGGERED TEST BASIS. The Frequency is acceptable based on instrument reliability and industry operating experience.~~

SR 3.3.7.5 CRVS actuation

INSERT BSR 3.3.7.5

SR 3.3.7.5 is the performance of a SLAVE RELAY TEST. The SLAVE RELAY TEST is the energizing of the ~~slave~~ relays. ~~Contact operation is verified in one of two ways. Actuation equipment that may be operated in the design mitigation MODE is either allowed to function or is placed in a condition where the relay contact operation can be verified without operation of the equipment. Actuation equipment that may not be operated in the design mitigation MODE is prevented from operation by the SLAVE RELAY TEST circuit. For this latter case, contact operation is verified by a continuity check of the circuit containing the slave relay.~~ This test is performed every ~~[92] days~~ 18 months. The Frequency is acceptable based on instrument reliability and ~~industry~~ operating experience (Ref. 1 and 2).

Q 3-08

SR 3.3.7.6

SR 3.3.7.6 is the performance of a TADOT. This test is a check of the Manual Actuation Functions and is performed every ~~[~~18~~]~~ months. Each Manual Actuation Function is tested up to, and including, the master relay coils. In some instances, the test includes actuation of the end device (i.e., pump starts, valve cycles, etc.).

The test also includes trip devices that provide actuation signals directly to the Solid State Protection System, bypassing the analog process control equipment. The Frequency is based on the known reliability of the Function and the redundancy available, and has been shown to be acceptable through operating experience. The SR is modified by a Note that excludes verification of setpoints during the

(continued)

CHANGE NUMBER	JUSTIFICATION
3.3-125	ITS SR 3.3.1.11 is modified by a Note that requires verification that the time constants are adjusted to the prescribed values. The addition of this Note is consistent with SR 3.3.1.10 and is required because SR 3.3.1.11 is used for the Power Range Neutron Flux - High Positive Rate [and High Negative Rate] trip functions which have a time constant associated with their calibration.
3.3-126	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-127	The MODE 2 applicability for the undervoltage RCP start of the steam-driven AFW pump is deleted and the surveillance Frequency is revised per the DCPP CTS. Thus, the Required Actions of ACTION I are revised to include entering MODE 2 for function 6.g and MODE 3 for function 5.b, ~~and~~ the required surveillance is changed from SR 3.3.2.7 to SR 3.3.2.8. This anticipatory start of the steam-driven AFW pump is not credited for MODE 2 operation, only the SG low level start signal is used for MODE 2 or 3. for Function 6.g.
3.3-128	This change revises ITS Table 3.3.4-1 to be consistent with CTS 3.3.3.5.
3.3-129	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-130	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-131	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-132	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-133	This change revises ITS LCO 3.3.5 and SR 3.3.5.3 to include the DG start sequence delay timers from CTS Table 3.3-4.
3.3-134	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-135	A MODE change restriction has been added to ITS 3.3.1 Condition C per the matrix discussed in CN 1-02-LS-1 of the 3.0 package (see LS-1 NSHC in the CTS Section 3/4.0, ITS Section 3.0 package).
3.3-136	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-137	The Condition for Function 4.c is changed from Condition D to E consistent with the CTS. Plant design requires this Function to be bypassed, not tripped if inoperable. Insert 3.3-137

since the trip is bypassed below P-7

Q 2-08

Q 3.3-127

the previously NOT USED ACTION J, is created to include entering

DC ALL-003

INSERT 6A table

Q 3-LS GEN

Insert for Enclosure 6A

Insert 6A Table

3.3-138	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).	CP 3.3-003
3.3-139	This change adds new SR 3.3.2.13 which is the performance of an 18 month TADOT. SR 3.3.2.8 is the performance of a TADOT every 24 months for DCPP. As part of the DCPP 24 month fuel cycle evaluations, the AFW manual actuation function was not evaluated for the surveillance extension since the test can be performed at any time. Therefore, the test frequency will remain at 18 months.	DC ALL-002
3.3-140	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).	CA 3.3-007
3.3-141	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).	CA 3.3-002
3.3-142	Adds "or trains" to ITS 3.3.1 Condition A, consistent with ITS 3.3.2 and Traveler TSTF-135.	TR 3.3-006
3.3-143	Not used.	
3.3-144	SR 3.3.7.3 and 3.3.7.4 are deleted since there are no actuation logic or master relays associated with the CRVS pressurization system actuation via the CRVS atmosphere intake radiation monitors. The CRVS atmosphere intake monitors actuate the pressurization system directly via the CRVS relays and do not go through the SSPS. The only actuation of the CRVS pressurization mode of operation via the SSPS is via the Phase A signal actuation.	Q 3-08

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-131	ITS 3.3.5 Condition B is replaced with new Conditions B, C, D, and E. Condition C in the ISTS is changed to Condition F. The CPSES CTS have specific actions for the various bus undervoltage and degraded voltage function. These actions allow an appropriate amount of time to restore an inoperable channel or declare the associated power source or bus inoperable and take action to isolate an inoperable power source. These actions are a proper way to respond to the inoperable channels because the actions result in taking the Required Actions in ITS 3.8 associated with the affected power source or bus. The new Conditions match the Actions of the CTS.	No	Yes	No	No
3.3-132	The trip setpoints for the loss of power diesel generator start instrumentation are relocated to a licensee controlled document. This approach is consistent with a format allowed by a reviewer's note for the RTS and ESFAS instrumentation.	No -adopted ITS format.	Yes	No, adopted ITS format.	No, adopted ITS format.
3.3-133	This change revises ITS LCO 3.3.5 and SR 3.3.5.3 to include the DG start sequence delay timers from DCPP CTS Table 3.3-4.	Yes	No	No	No
3.3-134	This change is Wolf Creek specific to revise the NOTE in Condition K of ITS 3.3.2 consistent with CTS Table 3.3-3 Action 30 ~~18~~ for Function 7b ~~and Amendment 43 to provide 4 hours foran additional channel to be placed in bypass for surveillance testing of other channels~~	No	No	Yes	No WC 3.3-018
3.3-135	A MODE change restriction has been added per the matrix discussed in CN 1-02-LS-1 of the ITS 3.0 package.	Yes	Yes	Yes	Yes
3.3-136	The TADOT perfromed under ITS SR 3.3.2.7 includes verification of relay setpoints since the trip actuating devices being tested are the same circuits tested under ITS SR 3.3.5.2.	No, adopted ISTS format.	No, adopted ISTS format.	Yes	Yes
3.3-137	The Condition for Function 4.c is changed from Condition D to E consistent with the DCPP CTS.	Yes	No	No	No DC ALL-003

INSERT 6B Table

Φ 3-LS GEN

Insert for Enclosure 6B
Insert 6B Table

3.3-138	This CPSES-specific change revises Table 3.3-1-1, Note 1, to reflect new Overtemperature N-16 parameters approved for Unit 2 in Amendment 55/41, and submitted for Unit 1 in LAR 97-03.	No	Yes	No	No
3.3-139	This DCPP-specific change adds new SR 3.3.2.13 which is the performance of an 18 month TADOT. SR 3.3.2.8 is the performance of a TADOT every 24 months for DCPP.	Yes	No	No	No
3.3-140	Changes to RTS and ESFAS ΔT Functions are made to reflect Callaway OL Amendment No. 125 dated 4/13/98.	No	No	No	Yes
3.3-141	Changes to ESFAS Feedwater Isolation Functions are made to reflect Callaway OL Amendment No. 126 dated 4/23/98.	No	No	No	Yes
3.3-142	Adds "or trains" to ITS Condition A, consistent with ITS 3.3.2 and TSTF-135.	Yes	Yes	Yes	Yes
3.3-143	Not used.	NA	NA	NA	NA
3.3-144	For DCPP, SR 3.3.7.3 and 3.3.7.4 are deleted since there are no actuation logic or master relays associated with the CRVS pressurization system actuation via the CRVS atmosphere intake radiation monitors.	Yes	No	No	No

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3-15 **APPLICABILITY:** DC

REQUEST:

This change revises DCPP CTS ACTION 34 and adds new ACTION 36 to require appropriate MODE changes or condition changes for the CRVS with one or two inoperable normal intake monitors. These actions specify a shutdown requirement for MODES 1-4 that is one hour less than LCO 3.0.3, and immediate action for inoperability in MODE 5 or 6, and immediate action for inoperability during fuel movement. Refer also to CN 3-08-M, CN 3-04-M, and CN 3.3-51.

Comment: CTS Action 34 is required for one or both channels of CRV Mode Change inoperable. For either condition in CTS Action 34, the CRVS must be placed in Aa recirculation mode with the HEPA filter and charcoal adsorber bank in operation. The required action of CTS Action 34 is modified to address a single channel of CRV Mode Change inoperable and Action 36 is added to address both channels of CRV Mode Change inoperable. For these changes the proposed ITS require the CRVS to be placed in the pressurization mode.

1) The required action of new actions 34 and 36 are less restrictive than that of CTS action 34 in that placing the HEPA filter bank and charcoal absorber bank in operation is not required (see ITS 3.3.7, Action A.1). Additionally, the pressurization mode replaces the recirculation mode in the ITS. These changes are not identified nor evaluated.

2) The requirement to "enter the applicable ACTIONS for one train made inoperable by CRVS actuation instrumentation" is not clear. Is this referring to Action 34, most of which is repeated in Action 36 or is it referring to a plant systems actions?

3) Action 36 is actually less restrictive because it allows compensatory actions that are much less restrictive than the current requirement to enter LCO 3.0.3.

FLOG RESPONSE: Comments 2) and 3) resolved in September 15, 1998 meeting (Reference 5).

New NSHC LS50 and DOC 3-19-LS50 justify the deletion of the requirement to place the CRVS in "recirculation" with the HEPA and charcoal absorber bank in operation and require that the CRVS be placed in the "pressurization" mode of operation.

ATTACHED PAGES:

Encl. 2	3/4 3-38
Encl. 3A	20
Encl. 3B	26 of 31
Encl. 4	NSHC Contents and Insert NSHC LS50

or place one FBVS train in operation in the Iodine Removal mode.

{3.3-82}

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 30 - With less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, operation may continue for up to 30 days provided an appropriate portable continuous monitor with the same Alarm Setpoint or an individual qualified in radiation protection procedures with a radiation dose rate monitoring device is provided in the fuel storage pool area. Restore the inoperable monitors to OPERABLE status within 30 days or suspend all operations involving fuel movement in the fuel storage pool areas. 01-43-A

ACTION 31 - With the number of OPERABLE channels less than required by the ~~Minimum~~ Required Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1. The provisions of Specification 3.0.4 are not applicable. 03-01-A 01-43-A

ACTION 32 - With the number of OPERABLE channels less than required by the ~~Minimum~~ Required Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12. 01-43-A

ACTION 33 - With the number of OPERABLE channels less than required by the ~~Minimum~~ Required Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9. 01-43-A

ACTION 34 - With the number of OPERABLE channels one less than required by the ~~Minimum~~ Required Channels OPERABLE requirement, within ~~1 hour~~ 7 days initiate and maintain operation of the Control Room Ventilation System in ~~a recirculation~~the pressurization mode with the HEPA filter and charcoal adsorber bank in operation; or when in MODE 1-4 be in MODE 3 in 6 hours and in MODE 5 in 36 hours; or during fuel movement, immediately suspend CORE ALTERATIONS and movement of irradiated fuel assemblies; or when in MODE 5 or 6, immediately initiate actions to restore one CRVS train to OPERABLE status. 01-43-A 03-05-LS14 03-15-M 03-19-LS50 {03-15}

(New) ACTION 36 With no OPERABLE channels, immediately place one CRVS train in the pressurization mode and enter the applicable ACTIONS for one train made inoperable by CRVS actuation instrumentation; or when in MODE 1-4 be in MODE 3 in 6 hours and in MODE 5 in 36 hours; or during fuel movement, immediately suspend CORE ALTERATIONS and movement of irradiated fuel assemblies; or when in MODE 5 or 6, immediately initiate actions to restore one CRVS train to OPERABLE status. 03-15-M

(New) ACTION 37 With the number of OPERABLE channels one less than required by the Required Channels, restore the affected channel to OPERABLE status within 4 hours. 03-14-LS29

CHANGE NUMBER	NSHC	DESCRIPTION
03-11	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-12	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-13	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-14	LS29	This proposed change adds an ACTION and an allowed outage time of 4 hours for one inoperable Containment Ventilation Radiation instrumentation or actuation channel. The CTS via ACTIONS 18 and 33 requires that for one or two instruments or channels inoperable that CTS 3.6.3 or 3.9.9 be entered. The revised TS will require that ITS 3.6.3 or 3.9.4 be entered if the instrument or channel cannot be returned to an OPERABLE status within the revised AOT. This change is consistent with the requirements of NUREG-1431.
03-15	M	This change revises CTS ACTION 34 to require appropriate MODE changes or condition changes for the CRVS with one inoperable normal intake monitor and new ACTION 36 specifies actions for two inoperable normal intake monitors. The CTS requires that if the required ACTIONs for one inoperable CRVS monitor is not met that LCO 3.0.3 be entered. In addition, the CTS does not specify a required action if both monitors are inoperable. NUREG-1431 requires that for the above conditions that appropriate actions be taken to place the plant in acondition of non-APPLICABILITY. These ACTIONs specify a shutdown requirement for MODES 1-4 that is one hour less than LCO 3.0.3, and immediate ACTION for inoperability in MODE 5 or 6, and immediate action for inoperability during fuel movement. These changes are consistent with NUREG-1431. Refer also to CN 03-08-M, CN 03-04-M, and CN 3.3-51.
03-16	A e	NOT USED ~~ITS 3.3.6 for DCPP includes MODES 1-4 and during movement of irradiated fuel assemblies within containment, in addition to MODE 6, in the LCO APPLICABILITY. These requirements are inferred in CTS 3.6.3 and are repeated here for clarity.~~ e DCALL-002
03-17	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
04-01	R	DCPP LCO 3.3.3.2, Movable Incore Detectors, is relocated to a licensee controlled document, see Attachment 21, page 11.
05-01	R e	Not used ~~DCPP LCO 3.3.3.3, Seismic Instrumentation, is relocated to a licensee controlled document, see LAR 95-07.~~ DCALL-004

INSERT 3-19 (1)

Q 3-15

INSERT 3-21-LS52

Q 3.3-82

INSERT 3-22-LS30

Q 3.3-79

Insert for Q 3-15

Enclosure 3A page 20
Insert 3-19(1)

03-19	LS50	CTS 3.3.3.1 ACTION 34 requires that if the normal air intake monitor for the control room ventilation train is inoperable, that the ventilation train be placed in the recirculation mode of operation if the monitor cannot be repaired in the allowed outage time. Although the recirculation mode utilizes the HEPA filter and charcoal absorber bank, this mode is not the mode of operation required for a LOCA or other design basis events. The design basis mode of operation is the pressurization mode that also utilizes the HEPA filter and charcoal absorber bank and is automatically initiated. Placing the ventilation system in operation is intended to be a substitute for the automatic actuation, which without the monitor is inoperable. This is a less restrictive change since the CTS is revised to replace the recirculation mode with the pressurization mode of operation.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
03-15 M	This change revises DCPP CTS ACTION 34 and adds new ACTION 36 to require appropriate MODE changes or condition changes for the CRVS with one or two inoperable normal intake monitors. These actions specify a shutdown requirement for MODES 1-4 that is one hour less than LCO 3.0.3, and immediate action for inoperability in MODE 5 or 6, and immediate action for inoperability during fuel movement. Refer also to CN 03-08-M, CN 03-04-M, and CN 3.3-51.	Yes	No	No	No
03-16 A e Not used.	~~ITS 3.3.6 for DCPP includes MODES 1-4 and during~~ movement of irradiated fuel assemblies within containment, in addition to MODE 6, in the LCO Applicability. These requirements are inferred in CTS 3.6.3 and are repeated here for clarity. e	~~Yes~~ e NA	~~No~~ e NA	~~No~~ e NA	~~No~~ e NA Q 3-16 DC ALL-002
03-17 A	The CPSES restrictions on opening of the containment pressure relief valves is moved from the Radiation Monitoring Instrumentation specification in the CTS to ITS 3.6.3 and the ITS Administrative Controls Section 5.5.1 for the ODCM.	No	Yes	No Q 3-01	No
04-01 R	DCPP LCO 3.3.3.2, Movable Incore Detectors, is relocated to a licensee controlled document.	Yes, see Attachment 21, page 11.	No	No	No
05-01 ~~RD~~ e	~~DCPP LCO 3.3.3.3, Seismic Instrumentation, is relocated to a licensee controlled document.~~ (Not used)	~~Yes, see LAR 95-07~~ NA	~~No~~ e NA	~~No~~ e NA	~~No~~ NA DC ALL-004
06-01 R	DCPP LCO 3.3.3.4, Meterological Instrumentation, is relocated to a licensee controlled document.	Yes, see Attachment 21, page 13.	No	No	No

INSERT 3-19-LS50(a) Q 3-15 INSERT 3-22-LS20 Q 3.3-79

INSERT 3-21-LS52(a) Q 3.3-82

[illegible]

Insert for Q 3-15

Enclosure 3B page 26 of 31
Insert 3-19(2)

3-19 LS50	This DCPP specific change replaces the action requirement to place the CRVS in the recirculation mode for an inoperable monitor with a requirement to place the CRVS in the pressurization mode.	Yes	No	No	No

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

Insert for Q 3-15

Enclosure 4
Insert NSHC LS50

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS50
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

CTS 3.3.3.1 ACTION 34 requires that if the normal air intake monitor for the control room ventilation train is inoperable, that the ventilation train be placed in the recirculation mode of operation if the monitor cannot be repaired in the allowed outage time. Although the recirculation mode utilizes the HEPA filter and charcoal absorber bank, this mode is not the mode of operation required for a LOCA or other design basis events. The design basis mode of operation is the pressurization mode, which also utilizes the HEPA filter and charcoal absorber bank and is automatically initiated. Placing the ventilation system in operation is intended to be a substitute for the automatic actuation, which without, the monitor is inoperable. This is a less restrictive change since the CTS is revised to replace the recirculation mode with the pressurization mode of operation.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> *1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> *2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> *3. Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change changes the control room ventilation monitoring action for an inoperable monitor

[illegible]

[illegible]

from the recirculation mode to the pressurization mode of operation. The proposed change in the mode of operation will not affect any of the analysis assumptions for any of the accidents previously evaluated since these analyses assumed that the air entering the control room would pass through a HEPA filter and charcoal absorber bank, and that is still the case. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change in the control room ventilation system mode of operation will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS50" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3-16 **APPLICABILITY:** DC

REQUEST:

ITS 3.3.6 for DCPP includes MODES 1-4 and during movement of irradiated fuel assemblies within containment, in addition to MODE 6, in the LCO Applicability. These requirements are inferred in CTS 3.6.3 and are repeated here for clarity.

Comment: This change is not shown in the CTS markup.

FLOG RESPONSE: This change was not used, but was not deleted from either Enclosure 3A or 3B of the original ITS submittal. The change was deleted as part of "License Amendment Request 97-09, Errata" dated January 9,1998 (Reference 7), refer to Additional Information Number DC ALL-002.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 7-01 **APPLICABILITY:** CP, DC, WC, CA

REQUEST:

The requirements of current TS Table [3.3-9] are redefined on a functional basis with Required Channels. The point at which ACTION Statements are entered is unchanged.

Comment: { [CP] Revise ITS T3.3.9-1 column to "REQUIRED NO. OF FUNCTIONS"

FLOG RESPONSE: 1) The generic NSHC "A" (administrative changes) has been revised to better define administrative changes.

2) The CTS table markup has been revised as necessary to provide the correct column title.

DOC 7-01 A is revised to read as follows:

"The requirements of current TS Table [3.3-9] are redefined on a functional basis, with Required Functions, rather than on a per channel basis, consistent with other Section 3.3 tables in NUREG-1431 Rev. 1. The point at which the ACTION Statements are entered is unchanged. []"

The conversion comparison table (enclosure 3B) is revised as follows to be consistent with DOC 7-01 A:

"The requirements of current TS Table [3.3-9] are redefined on a functional basis with Required Functions. The point at which ACTION Statements are entered is unchanged. []"

See also the response to Comment Number Q 3.3-24 for CPSES, WCGS, and Callaway and Q 3.3-128 for DCPP.

ATTACHED PAGES:

Encl. 2	3/4 3-48
Encl. 3A	21
Encl. 3B	27 of 31
Encl. 4	6
Encl. 5A	3.3-59
Encl. 5B	B 3.3-151

TABLE 3.3-9

REMOTE SHUTDOWN MONITORING INSTRUMENTATION AND CONTROLS

FUNCTION/ INSTRUMENT/~~CONTROL FUNCTION~~	~~READOUT/CONTROL LOCATION~~	REQUIRED NUMBER OF ~~CHANNELS~~ FUNCTIONS	07-06-LG ~~07-01-A~~ 07-01
1. Reactor Trip Breaker Indication	~~Reactor Trip Breaker~~	1/trip breaker	
2. Pressurizer Pressure	~~Hot Shutdown Panel~~	1	
3. Pressurizer Level	~~Hot Shutdown Panel~~	1	
4. Steam Generator Pressure	~~Hot Shutdown Panel~~	1/stm. gen.	
5. Steam Generator Wide Range Water Level ~~or Auxiliary Feedwater Flow~~	~~Hot Shutdown Panel~~	1/stm. gen.	~~07-10-LS26~~
6. Condensate Storage Tank Water Level	~~Hot Shutdown Panel~~	1	07-10
Remove strike out			
~~7. Auxiliary Feedwater Flow~~	~~Hot Shutdown Panel~~	~~1/stm. gen.~~	~~07-10-LS26~~
8. Charging Flow	~~Hot Shutdown Panel~~	1	
9. RCS Loop 1 Temperature Indication	~~Dedicated Shutdown Panel~~	Hot and Cold Leg Temperature Indication	
10. Auxiliary Feedwater Flow Control ~~-AFW Pump, and Associated Valves~~ ~~-Transfer Switches~~	~~Hot Shutdown Panel~~ ~~4kV Switchgear~~	any 2 of 3 AFW pumps	07-06-LG
11. Charging Flow Control ~~-Centrifugal Charging Pump~~ ~~-Transfer Switch~~	~~Hot Shutdown Panel~~ ~~4kV Switchgear~~	2 of 2 pumps	07-06-LG
12. Component Cooling Water Control ~~-Component Cooling Water Pump~~ ~~-Transfer Switch~~	~~Hot Shutdown Panel~~ ~~4kV Switchgear~~	any 2 of 3 CCW pumps	07-06-LG
13. Auxiliary Saltwater Control ~~-Auxiliary Saltwater Pump~~ ~~-Transfer Switch~~	~~Hot Shutdown Panel~~ ~~4kV Switchgear~~	2 of 2 pumps	07-06-LG
14. Emergency Diesel Generator Control ~~-EDG Start~~	~~EDG Local Control Panel~~	3 of 3 EDGs	07-06-LG

CHANGE NUMBER	NSHC	DESCRIPTION
		Not used DC ALL-004
06-01	~~R~~ L	~~DCPP LCO 3.3.3.4, Meterological Instrumentation, is relocated to a licensee controlled document, see Attachment 21, page 13.~~
07-01	A	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 7-01-A Q 7-01
07-02	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-03		Not Used.
07-04	LS15	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-05	A	Consistent with the ITS, the modifications would clarify the requirement to be in HOT SHUTDOWN in 12 hours by replacing the requirement with a new requirement to be in HOT STANDBY in 6 hours and in HOT SHUTDOWN in the next 6 hours.
07-06	LG	DC 3.3-Ed The Readout Location ~~and Total No. of Channels columns~~ in CTS Table [3.3-9] have been moved to the Bases of improved TS 3.3.4. ~~[Descriptive information related to the controls is also moved to the Bases.]~~
07-07		Not Used.
07-08	TR2	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-09	LS43	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 7-09-LS43 Q 7-09
07-10	LS26	~~In the CTS, the determination that the steam generators are available for decay heat removal, using instrumentation available at the remote shutdown panel, is based on steam generator level and auxiliary feedwater flow to the steam generator. In the ITS, it is recognized that either of these indications is sufficient.~~ Not used Q7-10
07-11	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-12	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-01	A	This change, consistent with NUREG-1431, revises "Channel" and "Instrument" to "Function."
08-02		Not Used.

[illegible]

Insert for Q 7-01

Enclosure 3A page 21
Insert 7-01-A

The requirements of current TS Table [3.3-5] are redefined on a functional basis, with Required Functions, rather than on a per channel basis, consistent with other Section 3.3 tables in NUREG-1431 Rev.1. The point at which the ACTION Statements are entered is unchanged. []

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
07-01 A	The requirements of CTS Table [3.3-9] are redefined on a functional basis with Required ~~Channels~~ Functions. The point at which ACTION Statements are entered is unchanged. [ ]	~~No, already in CTS.~~ Yes	Yes	Yes	Yes Q 7-01
07-02 M	The shutdown requirement for inoperable Remote Shutdown controls is changed from HOT STANDBY to HOT SHUTDOWN.	No, already in CTS.	Yes	No, already in CTS.	No, already in CTS.
07-03	Not used.	N/A	N/A	N/A	N/A
07-04 LS15	This change extends the Remote Shutdown AOT from 7 days to 30 days.	No, already in CTS.	Yes	Yes	Yes
07-05 A	Consistent with the ITS, the modifications would clarify the requirement to be in HOT SHUTDOWN in 12 hours by replacing the requirement with a new requirement to be in HOT STANDBY in 6 hours and in HOT SHUTDOWN in the next 6 hours.	Yes	Yes	No, already in CTS.	No, already in CTS.
07-06 LG	The Readout Location ~~and Total No. of Channels columns~~ in CTS Table [3.3-9] have been moved to the Bases of improved TS 3.3.4. [Descriptive information related to the controls is also moved to the Bases.]	Yes	Yes	Yes	Yes DC 3.3-Ee
07-07	Not used.	N/A	N/A	N/A	N/A
07-08 TR2	The CPSES requirement to submit a special report if the number of remote shutdown monitoring instruments is less than the required number would be deleted from the CTS. This requirement is covered by other regulatory requirements.	No	Yes	No	No

III. GENERIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

"A"

10CFR50.92 EVALUATION

Q 7-01

FOR

INSERT NSHC A

ADMINISTRATIVE REFORMATTING AND REWORDING

These ~~This~~ proposed TS revision includes reformatting and rewording the ~~remaining~~ CTS requirements in accordance with the NUMARC Technical Specification Writer's Guide and the Improved Standard Technical Specifications in NUREG-1431. This is intended to make the TS more readily understandable to plant operators and other users. Application of the Writer's Guide will also assure consistency between specifications. During this reformatting and rewording process, no technical changes (either actual or interpretational) were made to the TS unless they were identified and justified.

This proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10CFR50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> *1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> *2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> *3. Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The proposed change involves reformatting and rewording of the current Technical Specifications. The reformatting and rewording process involves no technical changes to the current Technical Specifications. As such, this change is administrative in nature and does not impact initiators of analyzed events or assumed mitigation of accidents or transient events. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not impose any different requirements. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

[illegible]

Enclosure 4 page 6
Insert NSHC A

Administrative changes are TS changes that do not affect operating limits or the manner in which the plant is operated (e.g., simple re-wording of the TS; deletion of a TS whose applicability has expired, or which duplicates regulatory or other requirements; or word changes to incorporate a previously implicit understanding of the TS).

Table 3.3.4-1 (page 1 of ~~2~~1)
Remote Shutdown System Instrumentation and Controls

3.3-128

~~NOTE~~
~~Reviewer's Note: This table is for illustration purposes only. It does not attempt to encompass every Function used at every unit, but does contain the types of Functions commonly found.~~

ED

FUNCTION/INSTRUMENT OR CONTROL PARAMETER	REQUIRED NUMBER OF FUNCTIONS
1. ~~Reactivity Control~~	Q 3.3-128
~~a. Source Range Neutron Flux~~	~~[1]~~
~~b.~~ Reactor Trip Breaker Position	1 per trip breaker
	B
~~c. Manual Reactor Trip~~	~~[2]~~
2. ~~Reactor Coolant System (RCS) Pressure Control~~	
~~a.~~ Pressurizer Pressure ~~or RCS Wide Range Pressure~~	1
~~b. Pressurizer Power Operated Relief Valve (PORV) Control and Block Valve Control~~	~~[1, controls must be for PORV & block valve on same line)~~
3. ~~Decay Heat Removal via Steam Generators (SGs)~~	
~~a.~~ RCS Hot Leg Temperature (loop 1 only)	1 ~~per loop~~ Q7-01
4. ~~b.~~ RCS Cold Leg Temperature (loop 1 only)	1 ~~per loop~~
5. ~~c.~~ AFW Controls ~~Condensate Storage Tank Level~~	~~[1]~~ 2 of any 3 AFW pumps Q 3.3-128
6. ~~d.~~ SG Pressure	1 per SG
9. ~~f.~~ Condensate Storage Tank Level	1
~~4. RCS Inventory Control~~	
10. ~~a.~~ Pressurizer Level	1
11. ~~b.~~ Charging Pump Controls	~~[1]~~ 2 of 2 pumps
12. ~~c.~~ Charging Flow	1
~~5. Safety Support Systems~~	
13. ~~a.~~ Emergency Diesel Generator Control	3 of 3 diesel generators
14. ~~b.~~ Component Cooling Water Control	any 2 of 3 pumps
15. ~~c.~~ Auxiliary Saltwater Control	2 of 2 pumps
7 SG Level	1 per SG
8 AFW Flow	1 per SG Q 7-10

Remove strikeout from Eva Ha

~~are~~ ~~DEALLOC~~ Q 3.3-94

Remove strikeout

BASES

APPLICABLE SAFETY ANALYSES (continued)

The Remote Shutdown ~~System~~ Instrumentation Functions and the ~~hot shutdown panel controls~~ ~~is~~ considered an important contributor to the reduction of unit risk to accidents and as such it has been retained in the Technical Specifications as indicated ~~in the NRC Policy Statement~~by Criterion 4 of 10 CFR 50.36(c)(2)(ii). Q 3.3-94

LCO

The Remote Shutdown ~~System~~ Instrumentation Functions and the hot ~~shutdown panel controls~~ LCO provides the OPERABILITY requirements of the instrumentation and controls necessary to place and maintain the unit in MODE 3 from a location other than the control room. The instrumentation and controls ~~typically~~ required are listed in Table 3.3.4-1 in the accompanying LCO. Q 3.3-94

~~Reviewer's Note: For channels that fulfill GDC 19 requirements, the number of OPERABLE channels required depends upon the unit licensing basis as described in the NRC unit specific Safety Evaluation Report (SER). Generally, two divisions are required OPERABLE. However, only one channel per a given Function is required if the unit has justified such a design, and NRC's SER accepted the justification.~~

The controls, instrumentation, ~~and transfer switches are required~~ for: the individual functions that provide the following general functions

- ~~Core reactivity control (initial and long term)~~ Reactor trip indication; Q 7-01
- RCS pressure control;
- Decay heat removal via the AFW System and the SG safety valves ~~or SG ADVs~~;
- RCS inventory control via charging flow; and
- Safety support systems for the above Functions, including ~~service water~~ auxiliary saltwater, component cooling water, and ~~onsite power, including the~~ diesel generators.

A Function of a Remote Shutdown System is OPERABLE if all required instrument and control channels ~~needed to support the Remote Shutdown System Function~~ for that function listed in Table 3.3.4-1 are OPERABLE. In some cases, Table 3.3.4-1 may indicate that the required information or control capability is available from several alternate sources. In these cases, the Function is OPERABLE as long

(continued)

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 7-09 **APPLICABILITY:** CP, WC, CA, DC

REQUEST:

Clarification is provided that Channel Checks are only required for normally energized instrumentation channels by adding "for each required instrumentation channel that is normally energized", per ITS [SR 3.3.3.1 and SR 3.3.4.1] to CTS [4.3.3.5.1 and 4.3.3.6].

Comment: [See LS 1 GEN]

FLOG RESPONSE: The applicability of DOC 7-09 LS-43 has been revised to include DCPP and WCGS.

Per the agreement at the 8/14/98 meeting, a list of the de-energized instruments will be included in LS-43.

ATTACHED PAGES:

Encl. 3A	21
Encl. 3B	28 of 31
Encl. 4	NSHC Contents and Insert NSHC LS-43

CHANGE NUMBER	NSHC	DESCRIPTION
06-01	~~R~~ L	Not used ~~DCPP LCO 3.3.3.4, Meterological Instrumentation, is relocated to a licensee controlled document, see Attachment 21, page 13.~~ DC ALL-004
07-01	A	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 7-01-A Q 7-01
07-02	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-03		Not Used.
07-04	LS15	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-05	A	Consistent with the ITS, the modifications would clarify the requirement to be in HOT SHUTDOWN in 12 hours by replacing the requirement with a new requirement to be in HOT STANDBY in 6 hours and in HOT SHUTDOWN in the next 6 hours.
07-06	LG	DC 3.3-Ed The Readout Location ~~and Total No. of Channels columns~~ in CTS Table [3.3-9] have been moved to the Bases of improved TS 3.3.4. ~~[Descriptive information related to the controls is also moved to the Bases.]~~
07-07		Not Used.
07-08	TR2	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-09	LS43	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 7-09-LS43 Q 7-09
07-10	LS26	~~In the CTS, the determination that the steam generators are available for decay heat removal, using instrumentation available at the remote shutdown panel, is based on steam generator level and auxiliary feedwater flow to the steam generator. In the ITS, it is recognized that either of these indications is sufficient.~~ Not used Q7-10
07-11	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-12	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-01	A	This change, consistent with NUREG-1431, revises "Channel" and "Instrument" to "Function."
08-02		Not Used.

[illegible]

Insert for Q 7-09

Enclosure 3A page 21
Insert 7-09-LS-43

The current TS require that CHANNEL CALIBRATIONS are performed for instrumentation used in the Post-Accident Monitoring [ ] Systems on [a 24 month] basis. Some of these instruments are then de-energized and remain in this state until re-energized for use in the management of plant events or for the performance of the CHANNEL CHECKS. CHANNEL CHECKS are performed more frequently than CHANNEL CALIBRATIONS for the purpose of detecting gross channel failures or excessive drift of one channel relative to other channels monitoring the same process variable. During the period that the channel is de-energized, it is not subject to the failure mechanisms or conditions that typically lead to instrument failure or excessive drift. Recognizing that de-energized channels are not subjected to the same failure mechanisms as energized channels, the current TS was revised to exempt instrumentation that is not normally energized from the performance of the periodic CHANNEL CHECKS, consistent with NUREG-1431 Rev. 1.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
07-09 LS43	Clarification is provided that Channel Checks are only required for normally energized instrumentation channels by adding "for each required instrumentation channel that is normally energized", per ITS [SR 3.3.3.1 ~~and SR 3.3.4.1~~] to CTS [~~4.3.3.5.1 and~~ 4.3.3.6].	~~No, retained CTS.~~ Yes	Yes	~~No, retained CTS.~~ Yes	Yes Q 7-09
07-10 ~~LS26~~	~~In the CTS, the determination that the steam generators are available for decay heat removal, using instrumentation available at the remote shutdown panel, is based on steam generator level and auxiliary feedwater flow to the steam generator. In the ITS, it is recognized that either of these indications is sufficient.~~ Not used	~~Yes~~ NA	~~Yes~~ NA	~~No, not in CTS.~~ NA	~~No, not in CTS.~~ NA Q 7-10
07-11 A	CTS SR 4.3.3.5.3 is deleted. This is duplicated in CTS 3.7.1.2 and covered in ITS 3.7.5 for AFW System operability requirements.	No, not in CTS.	No, not in CTS.	Yes	No, retained in ITS.
07-12 A	New Note excludes neutron detectors from CHANNEL CALIBRATION consistent with CTS Table 4.3-1, Functional Unit 6, Note 4 and with improved TS SR 3.3.4.3.	No, not in CTS.	No, already in CTS.	Yes	Yes
08-01 A	This change, consistent with NUREG-1431 Rev. 1, revises "Channel" and "Instrument" to "Function."	Yes	Yes	Yes	Yes
08-02	Not used.	N/A	N/A	N/A	N/A
08-03 A	This change revises CTS Table [3.3-10] to clarify the number of channels required to be Operable. This is an administrative change which deletes the "Minimum Channels Operable" column [ ]. The required actions are now based on one channel inoperable or two channels inoperable, rather than "less than the Total Number" or "less than Minimum Number."	Yes	Yes	Yes	Yes

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

Insert for Q 7-09

Enclosure 4
Insert NSHC LS43

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS-43
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

The current TS require that CHANNEL CALIBRATIONS are performed for instrumentation used in the Post-Accident Monitoring [ ] Systems on [a REFUELING INTERVAL (24 month)] basis. Some of these instruments are then de-energized and remain in this state until re-energized for use in the management of plant events or for the performance of the CHANNEL CHECKS. CHANNEL CHECKS are performed more frequently than CHANNEL CALIBRATIONS for the purpose of detecting gross channel failures or excessive drift of one channel relative to other channels monitoring the same process variable. During the period that the channel is de-energized, it is not subject to the failure mechanisms or conditions that typically lead to instrument failure or excessive drift. Recognizing that de-energized channels are not subjected to the same failure mechanisms as energized channels, the current TS was revised to exempt instrumentation that is not normally energized from the performance of the periodic CHANNEL CHECKS.

The following are those instruments that are normally de-energized:

[Containment Hydrogen monitor]

This proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> "The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:
>
> 1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or
>
> 2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or
>
> 3. Involve a significant reduction in a margin of safety."

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The instrumentation affected by the proposed change does not provide any automatic reactor protection or ESFAS functions. The instrumentation is used to provide indication to the reactor operators following a plant event. This indication may be used by the plant staff to manage an event, but serves no direct purpose in the detection or mitigation of an event. This instrumentation is not credited in any of the accident analyses nor in the calculation of the radiological consequences of an assumed analysis. Therefore, it is concluded that the proposed change would not involve a significant increase in the probability or consequences of any accident previously analyzed.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change will not alter the normal method of plant operation. No new transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change.

   The proposed change would delete periodic CHANNEL CHECKS currently required to be performed for normally de-energized instrumentation; however, because this instrumentation is normally de-energized, it is not subject to typical channel failure mechanisms. Therefore, the proposed change would not create a new possibility that erroneous information could lead the reactor operators down a path not previously considered. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS-43" resulting from the conversion to the improved TS format satisfy the no significant hazards consideration standards of 10 CFR 50.92(c); and accordingly, a no significant hazards consideration finding is justified.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 7-10 **APPLICABILITY:** DC, CP

REQUEST:

In the CTS, the determination that the steam generators are available for decay heat removal, using instrumentation available at the remote shutdown panel, is based on steam generator level and auxiliary feedwater flow to the steam generator. In the ITS, it is recognized that either of these indications is sufficient.

Comment: Reject proposed CTS changes which replace requirements for both SG level and AFW flow rate functions to be operable with an ITS allowance that either is required to be operable.

{DC} Additionally, the SG level and AFW flow RSS functions are missing from the ITS markup of Table 3.3.4-1. Thus these functions are not combined as stated in LS-26.

FLOG RESPONSE: This DOC is no longer applicable, since the separate SG level and AFW flow functions are being retained.

For DCPP, the deletion of the SG level and AFW flow function from Table.3.3.4-1 was inadvertent and has been restored.

Also see response to Comment Number Q 3.3-24 for CPSES and Comment Number Q 3.3-128 for DCPP.

ATTACHED PAGES:

Encl. 2	3/4 3-48
Encl. 3A	21
Encl. 3B	28 of 31
Encl. 4	NSHC Contents and page 45 and 46
Encl. 5A	3.3-59
Encl. 5B	B 3.3-150 (Insert A revised)

TABLE 3.3-9

REMOTE SHUTDOWN MONITORING INSTRUMENTATION AND CONTROLS

FUNCTION/ INSTRUMENT/~~CONTROL FUNCTION~~	~~READOUT/CONTROL LOCATION~~	REQUIRED NUMBER OF ~~CHANNELS~~ FUNCTIONS	
			07-06-LG ~~07-01-A~~ 07-01
1. Reactor Trip Breaker Indication	~~Reactor Trip Breaker~~	1/trip breaker	
2. Pressurizer Pressure	~~Hot Shutdown Panel~~	1	
3. Pressurizer Level	~~Hot Shutdown Panel~~	1	
4. Steam Generator Pressure	~~Hot Shutdown Panel~~	1/stm. gen.	
5. Steam Generator Wide Range Water Level ~~or Auxiliary Feedwater Flow~~	~~Hot Shutdown Panel~~	1/stm. gen.	~~07-10-LS26~~
6. Condensate Storage Tank Water Level	~~Hot Shutdown Panel~~	1	07-10
~~7. Auxiliary Feedwater Flow~~ Remove strike out	~~Hot Shutdown Panel~~	~~1/stm. gen.~~	~~07-10-LS26~~
8. Charging Flow	~~Hot Shutdown Panel~~	1	
9. RCS Loop 1 Temperature Indication	~~Dedicated Shutdown Panel~~	Hot and Cold Leg Temperature Indication	
10. Auxiliary Feedwater Flow Control ~~-AFW Pump, and Associated Valves~~ ~~-Transfer Switches~~	~~Hot Shutdown Panel~~ ~~4kV Switchgear~~	any 2 of 3 AFW pumps	07-06-LG
11. Charging Flow Control ~~-Centrifugal Charging Pump~~ ~~-Transfer Switch~~	~~Hot Shutdown Panel~~ ~~4kV Switchgear~~	2 of 2 pumps	07-06-LG
12. Component Cooling Water Control ~~-Component Cooling Water Pump~~ ~~-Transfer Switch~~	~~Hot Shutdown Panel~~ ~~4kV Switchgear~~	any 2 of 3 CCW pumps	07-06-LG
13. Auxiliary Saltwater Control ~~-Auxiliary Saltwater Pump~~ ~~-Transfer Switch~~	~~Hot Shutdown Panel~~ ~~4kV Switchgear~~	2 of 2 pumps	07-06-LG
14. Emergency Diesel Generator Control ~~-EDG Start~~	~~EDG Local Control Panel~~	3 of 3 EDGs	07-06-LG

CHANGE NUMBER	NSHC	DESCRIPTION
		Not used DC ALL-004
06-01	~~R~~ L	~~DCPP LCO 3.3.3.4, Meterological Instrumentation, is relocated to a licensee controlled document, see Attachment 21, page 13.~~
07-01	A	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 7-01-A Q 7-01
07-02	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-03		Not Used.
07-04	LS15	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-05	A	Consistent with the ITS, the modifications would clarify the requirement to be in HOT SHUTDOWN in 12 hours by replacing the requirement with a new requirement to be in HOT STANDBY in 6 hours and in HOT SHUTDOWN in the next 6 hours.
		DC 3.3-E1
07-06	LG	The Readout Location ~~and Total No. of Channels columns~~ in CTS Table [3.3-9] have been moved to the Bases of improved TS 3.3.4. ~~[Descriptive information related to the controls is also moved to the Bases.]~~
07-07		Not Used.
07-08	TR2	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-09	LS43	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 7-09-LS43 Q 7-09
07-10	LS26	~~In the CTS, the determination that the steam generators are available for decay heat removal, using instrumentation available at the remote shutdown panel, is based on steam generator level and auxiliary feedwater flow to the steam generator. In the ITS, it is recognized that either of these indications is sufficient.~~ Not used Q7-10
07-11	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-12	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-01	A	This change, consistent with NUREG-1431, revises "Channel" and "Instrument" to "Function."
08-02		Not Used.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
07-09 LS43	Clarification is provided that Channel Checks are only required for normally energized instrumentation channels by adding "for each required instrumentation channel that is normally energized", per ITS [SR 3.3.3.1 ~~and SR 3.3.4.1~~] to CTS [~~4.3.3.5.1 and~~ 4.3.3.6].	~~No, retained CTS.~~ e Yes	Yes	~~No, retained CTS.~~ Yes	Yes Q 7-09
07-10 ~~LS26~~ e	~~In the CTS, the determination that the steam generators are available for decay heat removal, using instrumentation available at the remote shutdown panel, is based on steam generator level and auxiliary feedwater flow to the steam generator. In the ITS, it is recognized that either of these indications is sufficient.~~ Not used	~~Yes~~ e NA	~~Yes~~ e NA	~~No, not in CTS.~~ e NA	~~No, not in CTS.~~ e NA Q 7-10
07-11 A	CTS SR 4.3.3.5.3 is deleted. This is duplicated in CTS 3.7.1.2 and covered in ITS 3.7.5 for AFW System operability requirements.	No, not in CTS.	No, not in CTS.	Yes	No, retained in ITS.
07-12 A	New Note excludes neutron detectors from CHANNEL CALIBRATION consistent with CTS Table 4.3-1, Functional Unit 6, Note 4 and with improved TS SR 3.3.4.3.	No, not in CTS.	No, already in CTS.	Yes	Yes
08-01 A	This change, consistent with NUREG-1431 Rev. 1, revises "Channel" and "Instrument" to "Function."	Yes	Yes	Yes	Yes
08-02	Not used.	N/A	N/A	N/A	N/A
08-03 A	This change revises CTS Table [3.3-10] to clarify the number of channels required to be Operable. This is an administrative change which deletes the "Minimum Channels Operable" column [ ]. The required actions are now based on one channel inoperable or two channels inoperable, rather than "less than the Total Number" or "less than Minimum Number."	Yes	Yes	Yes	Yes

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS26
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

Q 7-10

The Remote Shutdown System is required to provide equipment at appropriate locations outside the control room with a capability to place and maintain the unit in a safe condition in MODE 3 (prior to control room evacuation, the reactor would have been verified to be shutdown). Under this condition, decay heat would be removed from the RCS through the steam generators. Steam is released through the main steam safety and/or relief valves and steam generator inventory is maintained by the Auxiliary Feedwater System. Indication of either the steam generator level or the auxiliary feedwater flow rate is sufficient to ensure that the steam generator inventory is being replenished.

In the CTS, the determination that the steam generators are available for decay heat removal, using instrumentation available at the remote shutdown panel, is based on steam generator level <u>and</u> auxiliary feedwater flow to the steam generator. In the ITS, it is recognized that either of these indications is sufficient; therefore, the decay heat removal via steam generators function may be satisfied through the availability of either of these two functions.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change to require only one of two available indications of the capability to use the steam generators to remove decay heat from the RCS can not affect the probability of an accident. The consequences of the accidents considered in the safety analyses are largely independent of operator action; however, even with the reduced requirements for indication of steam generator heat removal capability, sufficient information is available to the reactor operators such that the assumed operator actions will not be affected. Therefore, neither the probability nor the consequences of an accident previously evaluated will be affected by this change.

Q

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

2. Does the change create the possibility of a new or different kind of accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change will not alter the normal method of plant operation. There will be no decrease in the information available to the reactor operator in the event of an accident that would lead the operator to take inappropriate actions. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change affects neither the relevant event acceptance criteria for any analyzed event nor any assumed failure point. Therefore, there will be no effect on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS26" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

Q 7-10

Table 3.3.4-1 (page 1 of ~~2~~1)
Remote Shutdown System Instrumentation and Controls

3.3-128

NOTE

~~Reviewer's Note:~~ ~~This table is for illustration purposes only. It does not attempt to encompass every Function used at every unit, but does contain the types of Functions commonly found.~~

ED

FUNCTION/INSTRUMENT OR CONTROL PARAMETER	REQUIRED NUMBER OF FUNCTIONS
1. ~~Reactivity Control~~	Q 3.3-128
~~a. Source Range Neutron Flux~~	~~[1]~~
~~b.~~ Reactor Trip Breaker Position	1 per trip breaker
	B
~~c. Manual Reactor Trip~~	~~[2]~~
2. ~~Reactor Coolant System (RCS) Pressure Control~~	
~~a.~~ Pressurizer Pressure ~~or RCS Wide Range Pressure~~	1
~~b. Pressurizer Power Operated Relief Valve (PORV) Control and Block Valve Control~~	~~[1, controls must be for PORV & block valve on same line)~~
3. ~~Decay Heat Removal via Steam Generators (SGs)~~	
~~a.~~ RCS Hot Leg Temperature (loop 1 only)	1 ~~per loop~~ Q7-01
4. ~~b.~~ RCS Cold Leg Temperature (loop 1 only)	1 ~~per loop~~
5. ~~c.~~ AFW Controls ~~Condensate Storage Tank Level~~	~~[1]~~2 of any 3 AFW pumps Q3.3-128
6. ~~d.~~ SG Pressure	1 per SG
9. ~~f.~~ e Condensate Storage Tank Level	1
~~4. RCS Inventory Control~~	
10. ~~a.~~ Pressurizer Level	1
11. ~~b.~~ Charging Pump Controls	~~[1]~~2 of 2 pumps
12. ~~c.~~ Charging Flow	1
~~5. Safety Support Systems~~	
13. ~~a.~~ Emergency Diesel Generator Control	3 of 3 diesel generators
14. ~~b.~~ Component Cooling Water Control	any 2 of 3 pumps
15. ~~c.~~ Auxiliary Saltwater Control	2 of 2 pumps
7 SG Level	1 per SG
8 AFW Flow	1 per SG Q 7-10

B 3.3 INSTRUMENTATION

B 3.3.4 Remote Shutdown System

BASES

BACKGROUND

The Remote Shutdown System provides the control room operator with sufficient instrumentation and controls to place and maintain the unit in a safe shutdown condition from a location other than the control room. This capability is necessary to protect against the possibility that the control room becomes inaccessible. A safe shutdown condition is defined as MODE 3. With the unit in MODE 3, the Auxiliary Feedwater (AFW) System and the steam generator (SG) safety valves ~~or the SG atmospheric dump valves (ADVs)~~ can be used to remove core decay heat and meet all safety requirements. The long term supply of water for the AFW System ~~and the ability to borate the Reactor Coolant System (RCS)~~ allows extended operation in MODE 3 until such time that either control is transferred back to the Control Room or a cooldown is initiated from outside the control room. Q3.3.G-1

remove redline

If the control room becomes inaccessible, the operators can establish control at the remote shutdown panel (hot shutdown panel), and place and maintain the unit in MODE 3. Not all controls and necessary transfer switches are located at the ~~remote~~ hot shutdown panel. Some controls and transfer switches will have to be operated locally at the switchgear, motor control panels, or other local stations. The unit automatically reaches MODE 3 following a unit shutdown and can be maintained safely in MODE 3 for an extended period of time.

following DC ALL-002

The OPERABILITY of the following remote shutdown control and instrumentation functions ensures there is sufficient information available on selected unit parameters to place and maintain the unit in MODE 3 should the control room become inaccessible.

INSERT A DC ALL-002

APPLICABLE SAFETY ANALYSES

5.0

The Remote Shutdown ~~System is required to~~ ~~Instrumentation Functions and the hot shutdown panel controls~~ provides equipment at appropriate locations outside the control room with a capability to promptly shut down and maintain the unit in a safe condition in MODE 3. Q 3.3-94 DC ALL-002

5.0

The criteria governing the design and specific system requirements of the Remote Shutdown ~~System~~ ~~Instrumentation Functions and controls~~ are located in 10 CFR 50, Appendix A, GDC 19 (Ref. 1). Q 3.3-94

(continued)

INSERT A

(E)

INSTRUMENT/CONTROL FUNCTION	READOUT/CONTROL LOCATION	REQUIRED NUMBER OF CHANNELS
1. Reactor Trip Breaker Indication	Reactor Trip Breaker	1/trip breaker
2. Pressurizer Pressure	Hot Shutdown Panel	1
3. Pressurizer Level	Hot Shutdown Panel	1
4. Steam Generator Pressure	Hot Shutdown Panel	1/stm. gen.
5. Steam Generator Wide Range Water Level ~~or Auxiliary Feedwater Flow~~ e	Hot Shutdown Panel	1/stm. gen.
6. Condensate Storage Tank Water Level	Hot Shutdown Panel	1
~~7. Auxiliary Feedwater Flow~~	~~Hot Shutdown Panel~~	~~1/stm. gen.~~
7 ~~8.~~ Charging Flow	Hot Shutdown Panel	1
8 ~~9.~~ RCS Loop 1 Temperature Indication	Dedicated Shutdown Panel	Hot and Cold Leg Temperature Indication
9 ~~10.~~ Auxiliary Feedwater Flow Control - AFW Pump, and Associated Valves - Transfer Switches	 Hot Shutdown Panel 4kV Switchgear	 any 2 of 3 AFW pumps
10 ~~11.~~ Charging Flow Control - Centrifugal Charging Pump - Transfer Switch	 Hot Shutdown Panel 4kV Switchgear	 2 of 2 pumps
11 ~~12.~~ Component Cooling Water Control - Component Cooling Water Pump - Transfer Switch	 Hot Shutdown Panel 4kV Switchgear	 any 2 of 3 CCW pumps
12 ~~13.~~ Auxiliary Saltwater Control - Auxiliary Saltwater Pump - Transfer Switch	 Hot Shutdown Panel 4kV Switchgear	 2 of 2 pumps
13 ~~14.~~ Emergency Diesel Generator Control - EDG Start	 EDG Local Control Panel	 3 of 3 EDGs

DC 3.3-Ed

Q 7-10

DC ALL-002

Remove strikeout

Q 7-10

Restore original numbering

DC ALL-002

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 8-01 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

This change, consistent with NUREG-1431 Rev. 1, revises "Channel" and "Instrument" to "Function."

Comment: Insufficient discussion to make a determination that the change is administrative. Revise DOC. All occurrences of this change in CTS 3.3.6 are not identified and discussed.

FLOG RESPONSE: See response to Comment Number Q 1-A GEN and new DOC 1-63-A.

ATTACHED PAGES:

None, see attached pages for Comment Number Q 1-A GEN.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 8-04 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Consistent with NUREG-1431, Rev. 1 (ITS 3.3.3 Required Actions C.1, E.1, and G.1), this change deletes the requirement to initiate an alternate means of monitoring within 72 hours when two channels of containment radiation level [or RVLIS] are inoperable as specified in current TS [3.3.3.6 ACTION c].

Comment: What is the basis for deleting the requirement to initiate the alternate method of monitoring in the case of containment high range radiation monitoring? The NSHC indicates that this automatically happens in the case of RVLIS, but implies that PASS monitoring of the containment is not initiated under condition G.

FLOG RESPONSE: NSHC LS-17 has been revised as per the attached.

ATTACHED PAGES:

Enclosure 4 page 41

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS17
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

This change deletes the requirement to initiate the preplanned alternate method of monitoring containment radiation [~~or reactor vessel water level~~] within 72 hours when two channels are inoperable. This makes ACTION [c] of current TS LCO [3.3.3.6] the same as ACTION [b], except that a plant shutdown is not needed if the 7 day AOT is not met for these functions with preplanned alternates. Containment radiation indication is used to assess whether the fuel cladding and reactor coolant pressure boundaries have been breached such that a significant portion of the core activity inventory is available for release to the environs. The preplanned alternate for this variable uses the PASS system which is administratively controlled outside the TS. [~~The preplanned alternates for RVLIS include a combination of the core exit thermocouples, RCS wide range hot and cold leg temperature, wide range RCS pressure, pressurizer level, and RCS subcooling monitor indications to verify adequate core cooling.~~] These variables are already continuously monitored under the LCO and do not require an action directing that they be initiated.

DC 3.3-Ed

INSERT LS17

Q 8-04

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change involves a relaxation regarding the deletion of the 72 hour initiation of the preplanned alternate method of monitoring containment radiation [or reactor vessel water level] if two channels are inoperable. The proposed change in the ACTION Statement will not affect any of the analysis assumptions for any of the accidents previously evaluated. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

[illegible]

Insert for Q 8-04

Enclosure 4 page 41
Insert LS17

Implementation of containment air sampling via the PASS will be initiated as required by ITS 3.3.3 Condition G. There is no safety benefit to activating the PASS earlier than required by Condition G considering [the other indications available to detect inadequate core cooling.]

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 8-07f **APPLICABILITY:** DC, WC, CA

REQUEST:

ITS proposes steam generator water level (Wide Range) and auxiliary feedwater flow functions as diverse variables because the ITS includes only one required instrument channel for each function per steam generator.

Comment: The staff does not credit Steam Generator Water Level (Wide Range) and Auxiliary Feedwater Flow functions as diverse PAM variables. However, the staff does credit Steam Generator Water Level (Wide Range) instrumentation in redundant loops in three and four loop Westinghouse plant designs. The staff also credits Auxiliary Feedwater Flow instrumentation in redundant loops in three and four loop Westinghouse plants. Therefore, credit for redundant loop design is given for specified PAM functions. If credit is taken for the redundancy provided by the instrumentation in the other loops, the STS LCO wording applies and the required number of channels is "2." Provide a design basis justification for deviating from the STS required number of channels for steam generator water level (Wide Range) and auxiliary feedwater flow.

FLOG RESPONSE: See the response to Comment Number Q 3.3-21 (4) for WCGS and Callaway and Comment Number Q 3.3-71 for DCPP.

ATTACHED PAGES:

None

[illegible]

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 8-11 **APPLICABILITY:** DC

REQUEST:

This change revises the DCPP current TS 3.3.3.6 to conform to NUREG-1431, Rev. 1 and revises current TS Table 3.3-10 to both add and delete instruments per the Reviewer's Note on ISTS Table 3.3.3-1.

Comment: Proposed changes to CTS Action Statement b. extends repair times however, LS-30 does not explain why each proposed change is safe. In addition, justification for proposed CTS Actions c. and d. changes states "are administrative and eliminate confusing action statements by deleting numerous exceptions". Explain deleting TS requirements using A-DOCs. Separate DOCs for A, M and LS changes. Justify each CTS change.

CTS markup – Table footnotes do not agree with proposed ITS Table footnotes. Correct the submittal.

FLOG RESPONSE: This change request will be separated into three changes, one for less restrictive changes (08-11 LS-30), one for more restrictive changes (08-11 M), and one for administrative changes (08-11 A).

The LS-DOC describes and justifies: 1) the deletion of CTS PAMS instruments, 2) the increase in AOTs for one and two inoperable channels, and 3) the revisions to the shutdown requirements.

The M-DOC: 1) adds Type A and/or Category 1 instruments, 2) adds additional instruments for instruments already in the CTS and revises their applicable Actions, and 3) revises the reporting requirements. The addition of the wide range NIS requires that the note of SR 3.3.3.2, that excludes the neutron detectors from calibration, be deleted since the wide range NIS is a separate detector form the normal NIS channels. JFD 3.3-109 is created to delete the subject note.

The A-DOC justifies the changes to 1) ACTION Statement c. and d. and Table 3.3-10, 2) surveillance 4.3.3.6 and Table 4.3-7, and 3) ACTION Statement b. relative to the hydrogen monitors.

The footnotes in the CTS have been corrected.

ATTACHED PAGES:

Encl. 2	3/4 3-50, 3/4 3-51, 3/4 3-52, 3/4 3-52a, 3/4 3-53
Encl. 3A	22
Encl. 3B	31 of 31
Encl. 4	51 thru 54
Encl. 5A	3.3-54
Encl. 5B	B 3.3-148
Encl. 6A	9

[illegible]

All changes unless noted otherwise via Q 8-11

Q 1-A GEN
1-63-A

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.6 The accident monitoring instrumentation ~~channels~~ functions shown in Table 3.3-10 shall be OPERABLE. 08-01-A

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

for one or more Functions

a. With the number of OPERABLE accident monitoring instrumentation channels less than the Required Number of Channels ~~but at least one accident monitoring channel OPERABLE~~ shown in Table 3.3-10, restore the inoperable channel(s) to OPERABLE status within ~~7~~ 30 days or ~~be in at least HOT SHUTDOWN within the next 12 hours.~~ prepare and submit a Special Report ~~to~~ the alternate method of monitoring the appropriate parameter(s), cause of the inoperability, and plans and schedule for restoring the channel to OPERABLE status. 08-11-LS30 e ON DC 3.3-Ed

one or more Functions with two required channels inoperable

b. With ~~the number of no OPERABLE accident monitoring instrumentation channels for one or more instrument functions~~ ~~except the containment recirculation sump level-narrow range, the main steam line radiation monitor, the containment area radiation monitor-high range, and the plant vent radiation monitor-high range less than the Minimum Channels OPERABLE requirements~~ of Table 3.3-10, except for the Containment Hydrogen Concentration Monitor, restore at least one ~~the~~ inoperable channel~~(s)~~ to OPERABLE status within ~~48 hours~~ 7 days or ~~be in at least HOT SHUTDOWN within the next 12 hours.~~ enter the Action Required referenced in Table 3.3-10. 08-11-LS30 08-11-A d DC 3.3-Ed

c. ~~With the number of OPERABLE channels for the containment recirculation sump level-narrow range less than the Minimum Channels OPERABLE requirement~~ As required by the Action Requirements of Table 3.3-10, ~~except for the Containment Hydrogen Concentration monitors, restore the inoperable channel to OPERABLE status within 30 days or~~ be in at least HOT STANDBY within 6 hours ~~or~~ And be in at least HOT SHUTDOWN within ~~the next~~ 12 hours. 08-11-LS30 e 08-11-A DC 3.3-Ed

d. ~~With the number of OPERABLE channels for the main steam line radiation monitor, or the containment area radiation monitor-high range or the plant vent radiation monitor-high range less than the Minimum Channels OPERABLE requirements~~ As required by the Action Requirements of Table 3.3-10, ~~initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours and either restore the inoperable channel(s) to OPERABLE status within 7 days or~~ prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days that ~~provides actions taken, identifies the~~ outlines the preplanned alternate method of monitoring the appropriate parameter(s), cause of the inoperability and plans and schedule for restoring the channels to OPERABLE status. 08-11-LS30 08-04-LS17 08-11-A 08-11-M

e. The provisions of Specification 3.0.4 are not applicable.

(New) Separate Condition entry is allowed for each function. 01-01-A

SURVEILLANCE REQUIREMENTS

Q 3-11

A

08-11-~~LS30~~

~~01-09-LS43~~

DC ALL-005

DC 3.3-E0

4.3.3.6 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK once per 31 days for each required instrument that is normally energized and CHANNEL CALIBRATION ~~at the frequencies shown in Table 4.3-7.~~ once ~~per 18 months~~ REFUELING INTERVAL.

TABLE 3.3-10

ACCIDENT MONITORING INSTRUMENTATION

Q 8-11

	INSTRUMENT FUNCTION	REQUIRED NO. OF CHANNELS	ACTION REQUIREMENTS FROM ACTION b.	~~MINIMUM CHANNELS OPERABLE~~	08-01-A 08-03-A 08-11-LS30
1.	Containment Pressure (normal range)	2	c.	~~1~~	
(New)	Containment Pressure (wide range)	2	c.		08-11-~~LS30~~ A M
2.	Reactor Coolant Outlet Temperature - T_{hot} (Wide Range)	2 (1/loop in two loops)	c. c.	~~1/loop in one loop~~	
3.	Reactor Coolant Inlet Temperature - T_{cold} (Wide Range)	2 (1/loop in two loops)	c.	~~1/loop in one loop~~	
4.	Reactor Coolant Pressure - Wide Range	2	c.	~~1~~	
5.	Pressurizer Water Level	2	c.	~~1~~	
6.	Steam Line Pressure	2/steam generator	c.	~~1/steam generator~~	
7.	Steam Generator Water Level - Narrow Range	2/steam generator	c.	~~1/steam generator~~	
(NEW)	Steam Generator Water Level - Wide Range	1/steam generator	c.		08-11-~~LS30~~ A M
8.	Refueling Water Storage Tank Water Level	2	c.	~~1~~	
9.	Containment Reactor Cavity Sump Level-Wide Range	2	c.	~~1~~	
10.	Containment Recirculation Sump Level-Narrow Range	~~N.A.~~ 2	c.	~~1~~	08-11-M
11.	Auxiliary Feedwater Flow Rate	1/steam generator	c.	~~1/steam generator~~	
~~12.~~	~~Reactor Coolant System Subcooling Margin Monitor~~	~~1~~		~~1~~	08-11-LS30
~~13.~~	~~PORV Position Indicator~~	~~2*/valve~~		~~1/valve**~~	08-11-LS30
~~14.~~	~~PORV Block Valve Position Indicator~~	~~1/valve~~		~~1/valve~~	08-11-LS30
~~15.~~	~~Safety Valve Position Indicator~~	~~2***/valve~~		~~1/valve~~	08-11-LS30
16.	In Core Thermocouples Quadrant 1	4/core quadrant (d)	c.	~~2/core quadrant~~	DC 3.3-Ed; 08-11-~~LS30~~
	In Core Thermocouples Quadrant 2	4/core quadrant	c.		08-11-A M
	In Core Thermocouples Quadrant 3	4/core quadrant	c.		
	In Core Thermocouples Quadrant 4	4/core quadrant	c.		
~~17.~~	~~Main Steam Line Radiation Monitor~~	~~N.A.~~		~~1/steam line~~	
18.	Containment Area Radiation Monitor-High Range	~~N.A.~~ 2	d.	~~1~~	08-11-~~LS30~~ A M
~~19.~~	~~Plant Vent Radiation Monitor-High Range~~	~~N.A.~~		~~1~~	08-11-LS30

9 8-11

Reactor Vessel Level Indication System	2	d. ~~1~~

~~*One direct, stem-mounted indicator per valve and one temperature element in the common discharge line from the PORVs.~~
~~**One common temperature element is equivalent to 1/valve for all PORVs.~~
~~***One acoustic monitor and one temperature element.~~

DC 3.3-Ed (H)

(new) Neutron Flux/Wide Range NIS	2 (c)	c.	08-11-~~LS30~~
(new) Containment Isolation Valve Position	1/valve(a)(b)	c.	08-11-~~LS30~~
(new) Containment Hydrogen Concentration	2	c.	08-11-~~LS30~~
(new) Condensate Storage Tank Level	2	c.	08-11-~~LS30~~ (H)

(new) (a) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated valve, closed manual valve, blind flange, or check valve with flow through the valve secured. 08-11-~~LS30~~
(new) (b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel. 08-11-~~LS30~~ (H)
~~(new) (c) Neutron detectors are excluded from channel calibration.~~ ~~08-11-LS30~~
(new) (d) A channel consists of two Incore Thermocouples. 08-11-~~LS30~~ (A)

Q 8-11

TABLE 4.3-7

~~ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS~~

~~INSTRUMENT~~	~~CHANNEL CHECK~~	~~CHANNEL CALIBRATION~~	
~~1. Containment Pressure~~	~~M~~	~~R~~ 24	DC ALL-005 A ~~08-11-LS30~~
~~2. Reactor Coolant Outlet Temperature – T_{hot} (Wide Range)~~	~~M~~	~~R~~ 24	
~~3. Reactor Coolant Inlet Temperature – T_{cold} (Wide Range)~~	~~M~~	~~R~~ 24	
~~4. Reactor Coolant Pressure – Wide Range~~	~~M~~	~~R~~ 24	
~~5. Pressurizer Water Level~~	~~M~~	~~R~~ 24	
~~6. Steam Line Pressure~~	~~M~~	~~R~~ 24	
~~7. Steam Generator Water Level – Narrow Range~~	~~M~~	~~R~~ 24	
~~8. Refueling Water Storage Tank Water Level~~	~~M~~	~~R~~ 24	
~~9. Containment Reactor Cavity Sump Level Wide Range~~	~~M~~	~~R~~ 24	
~~10. Containment Recirculation Sump Level Narrow Range~~	~~M~~	~~R~~ 24	
~~11. Auxiliary Feedwater Flow Rate~~	~~M~~	~~R~~ 24	
~~12. Reactor Coolant System Subcooling Margin Monitor~~	~~M~~	~~R~~ 24	
~~13. PORV Position Indicator~~	~~M~~	~~R~~ 24	
~~14. PORV Block Valve Position Indicator~~	~~M~~	~~R~~ 24	
~~15. Safety Valve Position Indicator~~	~~M~~	~~R~~ 24	
~~16. In Core Thermocouples~~	~~M~~	~~R~~ 24	
~~17. Main Steam Line Radiation Monitor~~	~~M~~	~~R~~ 24	
~~18. Containment Area Radiation Monitor High Range~~	~~M~~	~~R*~~ 24	
~~19. Plant Vent Radiation Monitor High Range~~	~~M~~	~~R~~	
~~20. Reactor Vessel Level Indication System~~	~~M~~	~~R~~ 24	DCALL-005

~~*CHANNEL CALIBRATION may consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.~~

08-09-LG
Q 3.3-20

CHANGE NUMBER	NSHC	DESCRIPTION
08-03	A	This change revises CTS Table [3.3-10] to clarify the number of channels required to be Operable. This is an administrative change which deletes the "Minimum Channels Operable" column [ ]. The required ACTIONs are now based on one channel inoperable or two channels inoperable, rather than "less than the Total Number" or "less than Minimum Number." This change is consistent with NUREG-1431.
08-04	LS17	Consistent with NUREG-1431 (ITS 3.3.3 Required ACTIONs C.1, E.1, and G.1), this change deletes the requirement to initiate an alternate means of monitoring within 72 hours when two channels of Containment Radiation Level ~~or RVLIS~~ are inoperable as specified in CTS [3.3.3.6 ACTION d. In addition, a special report is required within 14 days that identifies the alternate method of monitoring the appropriate parameter(s), as well as the current special report requirements]. DC ALL-002
08-05	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-06	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-07	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-08	LS27	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-09	LG	~~Not Used~~ INSERT 8-09 Q 3.3-20
08-10		Not Used.
08-11	LS30	This change revises the DCPP CTS 3.3.3.6 to conform to NUREG-1431 and revises CTS Table 3.3-10 to both add and delete instruments per the Reviewer's Note on ISTS Table 3.3.3-1. Q 8-11
08-11	A	INSERT 8-11-A
08-11	M	INSERT 8-11-M
09-01	LG	The explosive gas monitoring instrumentation will be controlled by the Explosive Gas Monitoring Program established in accordance with ITS 5.5.12, see Attachment 21, page 15.
10-01	R	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). ~~The Turbine Overspeed Protection System is relocated to a licensee controlled document, see LAR 95-07.~~ DC ALL-004
11-01	~~R~~	~~LCO 3.3.3.7, Chlorine Detection Systems, is relocated to a licensee controlled document, see LAR 95-07.~~ Not used. DC ALL-004

[illegible]

Insert for Q 8-11

Enclosure 3A page 22
DOC 8-11-A

CTS ACTION Statement c. is revised to reference Table 3.3-10 for required actions for specific inoperable functions (The instrument applicability is the same except where revised by DOC 8-11-LS30 or DOC 8-11-M). This is equivalent to the previous ACTION that initiated action relative to the Required Number of Channels or the Minimum Channels Operable. When referenced, revised ACTION c. requires the plant to be in MODE 3 within 6 hours and MODE 4 within the next 6 hours. This action is equivalent to the previous shutdown requirement except that the intermediate MODE 3 step is inserted, to be consistent with NUREG-1431, without revising the overall requirement of 12 hours for being in MODE 4.

CTS ACTION Statement d. is revised to reference Table 3.3-10 for required actions for specific inoperable functions (The instrument applicability is the same except where revised by DOC 8-11-LS30 or DOC 8-11-M). This is equivalent to the previous ACTION that initiated action relative to the Minimum Channels Operable.

CTS surveillance 4.3.3.6 is revised to specify the surveillance frequencies instead of referring to CTS Table 4.3-7 and Table 4.3-7 is deleted (the note at the bottom of Table 4.3-7 is moved to the Bases via DOC 8-xx-LG). There are no revisions to the testing requirements except for the change from 18 months (specified as "R" in Table 4.3-7) to 24 months per LA 122/120 as described in Addition Information Number DC ALL-005 and the deletion of CHANNEL CHECKS for normally de-energized instruments per DOC 7-09-LS43.

CTS ACTION b. is revised to exempt the containment hydrogen monitors from the 7-day allowed outage time per CTS 3.6.4.1 ACTION b.

Function 16 is revised to be consistent with NUREG-1431 by separately listing each quadrant as a specific function and by noting that two channels are required and that each channel consists of two incore thermocouples. This is consistent with the current interpretation that the function is applicable to each quadrant separately. In addition, Table 4.3-7 implies via the Required Number of Channels and the Minimum Channels Operable that there are two channels each consisting of two thermocouples.

[illegible]

Insert for Q 8-11

Enclosure 3A page 22
DOC 8-11-M

This change to CTS 3/4.3.3.6, "Accident Monitoring Instrumentation," revises the instrumentation used for monitoring plant conditions following an accident. The post accident monitoring instrumentation listed in TS Table 3.3-10 is revised to include all Diablo Canyon Power Plant (DCPP) Regulatory Guide (RG) 1.97, Type A and Category 1 instrumentation per the NUREG-1431 Table 3.3.3-1 reviewer's note.

The following DCPP RG 1.97 Type A and/or Category 1 accident monitoring instrumentation is added to TS Table 3.3-10:

h. Containment Pressure (Wide Range)
i. Steam Generator Water Level (Wide Range)
j. Neutron Flux (Wide Range NIS)
k. Containment Isolation Valve Position
l. Containment Hydrogen Concentration
m. Condensate Storage Tank Level

The addition of Type 1 and Category A instrumentation provides assurance that instrumentation which provides indication of the variables considered critical for monitoring plant conditions following a DBA are available to the operators to allow for proper mitigation of the consequences of an accident.

Two channels provide indication for the Type A instrumentation included in proposed TS 3/4.3.3.6, except for containment isolation valve (CIV) position channels. For the CIV position, the important information is the status of the containment penetrations. The TS requires one position indicator for each active containment isolation valve. This is sufficient to redundantly verify the isolation status of each isolable penetration either via indicated status of the active valve and prior knowledge of passive valve position or via system boundary status. If a normally active CIV is known to be closed and deactivated, position indication is not needed to determine status. In addition, a new note is added that exempts penetrations that are isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange or check valve with the flow through it secured. Under these conditions, the penetration would already be performing its intended safety function and the valve indication for that penetration would not be required. The CIV position requirement is further clarified by a note that states that for those penetrations with one valve and thus only one control room indication, only one is required. This is sufficient to redundantly verify the isolation status of each isolable penetration either via indicated status of the active valve, as applicable, prior knowledge of a passive valve, or via system boundary status.

The number of required containment recirculation sump and containment area radiation monitoring channels is increased to two. The change of the required number of containment recirculation sump and containment area radiation monitoring channels is a conservative change that provides redundancy and makes revised ACTION Statement a. applicable to these channels.

The addition of the two channels of wide range NIS improves the ability to monitor the reactor

[illegible]

core. The Gammametrics detector is a single instrument that provides a range from 1E-8 to 1E+2% RTP that overlaps the range of the power range and source range neutron flux detectors.

The reporting requirements of CTS ACTION d. are revised to require the report to outline the preplanned alternate method of monitoring. This revision assures that the monitoring function remains viable during the time the TS required monitor or monitors are inoperable.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
08-10	Not used.	N/A	N/A	N/A	N/A
08-11 LS30	This change revises the DCPP CTS 3.3.3.6 to conform to NUREG-1431 Revision 1 and revises CTS Table 3.3-10 to both add and delete instruments per the Reviewer's Note on ISTS Table 3.3.3-1.	Yes	No	No	No
09-01 LG	The explosive gas monitoring instrumentation will be controlled by the Explosive Gas Monitoring Program established in accordance with ITS 5.5.12.	Yes, see Attachment 21, page 15.	Yes, Instrument surveillances moved to the TRM. CP 3.3-006	No, already moved to Administrative Controls section (OL Amendment No. 89).	No, already moved to Administrative Controls section (OL Amendment No. 103).
10-01 R	The Turbine Overspeed Protection System is relocated to a licensee controlled document.	~~Yes, see LAR 95-07.~~ No	Yes, relocated to TRM.	No, already relocated to USAR (OL Amendment No. 89).	No, already relocated to FSAR Section 16.3 (OL Amendment No. 103). DC ALL-004
11-01 ~~R~~	~~LCO 3.3.3.7, Chlorine Detection Systems, is relocated to a licensee controlled document.~~ Not used	~~Yes, see LAR 95-07.~~ N/A	~~No, not in CTS.~~ N/A	~~No, not in CTS.~~ N/A	~~No, not in CTS.~~ N/A DC ALL-004

INSERT 08-11-Aa
INSERT 08-11-Ma

Q 8-11
Q 8-11

Insert for Q 8-11

Enclosure 3B page 31 of 31
Insert 8-11-Aa

08-11 A	The DCPP CTS ACTION Statements c. and d. are revised to reference Table 3.3-10 for required actions for specific inoperable functions. CTS surveillance 4.3.3.6 is revised to specify the surveillance frequencies instead of referring to CTS Table 4.3-7 and Table 4.3-7 is deleted. CTS ACTION b. is revised to exempt the containment hydrogen monitors from the 7-day allowed outage time per CTS 3.6.4.1 ACTION b. Function 16 is revised to be consistent with NUREG-1431 by separately listing each quadrant as a specific function and by noting that two channels are required and that each channel consists of two incore thermocouples.	Yes	No	No	No

[illegible]

Insert for Q 8-11

Enclosure 3B page 31 of 31
Insert 8-11-Ma

08-11 M	This DCPP-specific change adds Type A and/or Category 1 instruments, 2) adds additional channels for instruments already in the CTS and revises their applicable Actions, and 3) revises the reporting requirements.	Yes	No	No	No

[illegible]

Insert for Q 8-11

Enclosure 4 page 51-54
Insert LS30

SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS30
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

This change: 1) revises the instrumentation used for monitoring plant conditions following an accident, 2) revises the allowed outage time and deletes the shutdown requirement for one channel inoperable, and 3) revises the allowed outage time for two inoperable instrument channels.

The following non-type A and non-Category 1 DCPP RG 1.97 instrumentation is deleted from TS Table 3.3-10:

e. Reactor Coolant System (RCS) Subcooling Margin Monitor
f. Power Operated Relief Valve (PORV) Position Indicator
g. PORV Block Valve Position Indicator
h. Safety Valve Position Indicator
i. Main Steam Line Radiation Monitor
j. Plant Vent Radiation Monitor-High Range

Although non-Type A/non-Category 1, instrumentation may be useful in determining plant conditions, it is not necessary to include these instruments in the TS as identified by the reviewers note in NUREG-1431. An evaluation of the non-Type A instrumentation in TS 3/4.3.3.6 was performed in accordance with 10CFR50.36(c)(2)(ii). A probabilistic risk assessment (PRA) evaluation for DCPP indicated that instruments which are non-Type A did not contain constraints of prime importance in limiting the likelihood or severity of accident sequences which are commonly found to dominate offsite health affects and do not significantly contribute to risk. Although the non-Type A equipment for RVLIS and containment area radiation monitors was determined not to be risk significant, because of the information provided, it was determined that these non-Type A/Category 1 monitors should remain in the TS consistent with the NUREG-1431 Table 3.3.3-1 and the reviewer's note. Non-Type A/non-Category 1 equipment that is being deleted from the TS will be relocated to plant Equipment Control Guidelines, which are controlled by the 10 CFR 50.59 process.

The specific criteria used to determine if an accident sequence was risk dominant for core damage frequency was any sequence that had a probability of occurring greater than 1E-6 per reactor year (as a conservative initial determination). For off-site health effects, any sequence whose frequency of serious radioactive releases is commonly found to be greater than 1E-7 per reactor year, was considered to be a dominant risk.

ACTION Statement a. of the CTS is modified to allow an outage time of 30 days, versus the CTS 7 days, for one channel less than the required number of channels. If the channel(s) cannot be restored to operable status within the 30 day Allowed Outage Time (AOT), a special report is required to be submitted to report the alternate method of monitoring the appropriate parameter(s), cause of the inoperability and plans and schedule for restoring the channel to OPERABLE status. These revisions are consistent with NUREG-1431 ACTIONS A and B. The 30-day completion time and the allowance for a special report in lieu of a required shutdown, considers the following to assure that the monitoring function can be performed by two methods: 1) the availability of the remaining OPERABLE channel, 2) the availability of an alternate means to obtain the required information via diverse instrumentation or, for functions with only one required channel, other non-Regulatory Guide 1.97 instrument channels, 3) the passive nature of these instruments (no critical automatic function is initiated from these instruments), and 4) the low probability of an event requiring PAM instrumentation during this interval. The reporting requirements specify that alternate means of monitoring these parameters and a schedule for repairing the channels be described and submitted to the NRC, thus assuring that the channels will be repaired in a timely manner. As a result of the alternate means of monitoring the affected parameter, and the redundant OPERABLE channel, the required function will not be lost during the time when one channel is inoperable. This change eliminates a shutdown requirement for any single redundant channel inoperable and the inherent risk associated with a unit shutdown, yet still provides assurance that the affected channel will be restored in a timely manner.

Since either redundant or diverse means of indication exist for each Type A/category 1 channel, the monitoring of the function will not be lost as a result of one channel failure. Therefore increasing the AOT from 7 days to 30 days will not have a significant affect on the health and safety of the public.

CTS ACTION Statement b. is modified to address two inoperable channel(s) for one or more instrument functions. The revised ACTION requires one channel to be restored to operable status within 7 days, versus the CTS 48 hour requirement, otherwise the Action Requirement referenced in Table 3.3-10 must be entered. These revisions are consistent with NUREG-1431 ACTIONS C and E. For all channels except the high range containment area radiation monitor and RVLIS (refer to DOC 08-04 LS17 for the changes to requirements related to the high range containment area radiation monitor), Table 3.3-10 states that a shut down to MODE 4 is required if the AOT is exceeded. This assures that, for the complete loss of a monitoring function that is deemed risk significant, the plant is placed, in a timely manner, in a condition in which the function is no longer required. All exceptions to the ACTION Statement currently included in the TS, except for the hydrogen monitor moved from section 3.6, are deleted as justified in DOC 8-11-M. The requirement for a plant shutdown for an inoperable RVLIS or containment area radiation monitor channels is eliminated and replaced with a requirement to submit a Special Report. Since these functions were determined not to be risk significant, and there are alternate methods available to monitor these functions, a required shutdown is not required.

Relaxing the AOT from 48 hours to 7 days for the condition when no accident monitoring instrumentation channels for a particular function are operable provides additional time to: 1) diagnose and correct a problem, 2) provide for an alternate means for monitoring the accident parameter, and 3) could avoid the risk associated with unnecessary plant transients and shutdowns.

[illegible]

The 7-day AOT for the complete loss of monitoring for a function is appropriate because of the relatively low probability of an event requiring the accident monitoring instrumentation (the probability of a LOCA requiring the operability of post accident monitoring channels is 1E-6 per reactor year.). In addition, the availability of alternate means to obtain the required information, the diverse instrumentation or other non-Regulatory Guide 1.97 instrument channels, ensure the ability to monitor the required functions.

The proposed TS changes have been evaluated and it has been determined that they involve no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92 (c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> *1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> *2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> *3. Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   None of the changes alter the plant configuration or operation. Consequently, this change does not significantly increase the probability of an accident as defined in the FSAR Update. Additionally, no post accident monitoring channel initiates an accident. Except for the increased instrument allowed outage time and the deletion of the shutdown requirement for non risk significant functions, the change is essentially a reformatting and deletion of obsolete statements. The evaluation identifies that there is a low probability of an event that would require the accident monitoring instrumentation and that there are alternate means to obtain the required information if the accident monitoring function is required. Consequently, the change does not have a significant affect on the probability or consequences of any previously evaluated accident.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   None of the changes require physical alteration to any plant system or change the method by which any safety-related system performs its function. Therefore, the proposed changes do not create the possibility of a new or different kind of accident

[illegible]

from any accident previously evaluated.

3. Does the change involve a significant reduction in a margin of safety?

None of the changes will change any accident analysis assumptions, initial conditions, or results. Consequently, this change does not involve a significant reduction in a margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS30" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92 (c) and; accordingly, an NSHC finding is justified.

SR 3.3.3.2	~~NOTE~~ ~~1. Neutron detectors are excluded from CHANNEL CALIBRATION.~~ ~~2. CHANNEL CALIBRATION for Containment Area Radiation may consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.~~ Perform CHANNEL CALIBRATION.	Q 8-11 3.3-109 ~~3.3-20~~ Q 3.3-20 24 DC ALL-005 ~~18~~ months B
SR 3.3.3.3	Perform CHANNEL CALIBRATION for Hydrogen Monitors.	92 days 3.3-112 Q 12-05(3.6)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.3.1 (continued)

it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION. The high radiation instrumentation should be compared to similar unit instruments located throughout the unit.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including isolation, indication, and readability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit. If the channels are within the criteria, it is an indication that the channels are OPERABLE.

As specified in the SR, a CHANNEL CHECK is only required for those channels that are normally energized. The Containment Hydrogen Concentration monitors are maintained in a "standby" condition which does not energize all of the monitor components, thus the monitors are not considered "normally energized".

The Frequency of 31 days is based on operating experience that demonstrates that channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

May consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.

SR 3.3.3.2

A CHANNEL CALIBRATION is performed every ~~[18]~~ 24 months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to measured parameter with the necessary range and accuracy. ~~This SR is modified by a two Notes that Note 1 excludes neutron detectors from CHANNEL CALIBRATION. The calibration method for neutron detectors is specified in the Bases of LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation." Note 2 discusses an allowed methodology for calibrating the~~ CHANNEL CALIBRATION of the Containment Radiation Level (High Range) Function. The Frequency is based on operating experience and consistency with the typical industry refueling cycle.

DC ALL-005

QB-11

Q 3.3-20

REFERENCES

1. ~~[Unit specific document (e.g.,~~ FSAR, ~~NRC Regulatory Guide 1.97 SER letter).]~~ 7.5.
2. Regulatory Guide 1.97, ~~[date]~~ Revision 3.
3. NUREG-0737, Supplement 1, "TMI Action Items."

INSERT SR 3.3.3.2
TR 3.3-004

INSERT SR 3.3.3.3

Q 12-05 (3.6)

(continued)

Not Applicable to DCPP. See Conversion Comparision Table (Enclosure 6B)

DC 3.3-004

CHANGE NUMBER	JUSTIFICATION	
3.3-109	~~Not used.~~ INSERT 3.3-109	Q 8-11
3.3-110	~~Not used.~~ INSERT 3.3-110	DCALL-005
3.3-111	~~This change adds a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the current TS and is an enhancement which is easily performed and provides additional assurance that the interlocks are functioning correctly.~~	DC 3.3-004
3.3-112	~~Not used.~~ INSERT 3.3-112	Q 12-05 (3.6)
3.3-113	~~Not used.~~ INSERT 3.3-113	Q 2-05 (2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114	Q 3.3-66
3.3-115	Not used.	
3.3-116	ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps. The function exists, but is not credited in any accident analysis and is not part of ESFAS Function 6 in the CTS.	
3.3-117	This change to ITS 3.3.1 Condition R reflects current TS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.	
3.3-118	This change is for consistency with ITS 3.7.10 Condition [G].	
3.3-119	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-120	~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.~~ Not used.	Q 3.3-120
3.3-121	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-122	ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring the RTBs to be opened with ACTIONS that ensure subcriticality is maintained (i.e., by initiating action to fully ~~inserting~~ insert all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135.	TR 3.3-006
3.3-123	This change deletes ACTION L.2 and renumbers L.3 since the requirement to close the unborated water source valves is not in the CTS and is not part of the current licensing basis. This new requirement is not applicable to DCPP which has a licensed dilution accident evaluation (refer to License Amendment 28/27). The current licensing bases in accordance with NUREG 0800, Section 15.4.6 provides adequate assurance that a dilution event will be recognized and arrested in a timely fashion.	DC 3.3-Ed
3.3-124	Consistent with the current TS Table 4.3-1, Note [15], the note for ITS SR 3.3.1.4 is modified, a note is added to Table 3.3.1-1, and Function 20 are modified to clarify that the SR is required for the reactor trip bypass breaker local manual shunt trip only. The Bases for SR 3.3.1.14 clearly state that SR 3.3.1.14 includes the automatic undervoltage trip of the reactor trip bypass breakers. The Note (k) added to Table 3.3.1-1, Function 20 clarifies the Applicability of the undervoltage and shunt trip mechanisms to include those functions of the reactor trip bypass breakers when in use.	

Insert for Q 8-11

Enclosure 6A page 9
Insert 3.3-109

The addition of the wide range NIS to PAMS requires that the note of SR 3.3.3.2, that excludes the neutron detectors from calibration, be deleted since the wide range NIS is a separate detector from the normal NIS channels. Other than PAMS, there is no requirement to calibrate the wide range NIS channels.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-103	Function 11 of ITS Table 3.3.1-1 is revised per the DCPP CTS to reflect the current plant design of only a two loop trip. With this revision Condition O is no longer used, since it was only applicable to the single loop trip.	Yes	No	No	No
3.3-104	CONDITION A of ITS 3.3.5 is revised to incorporate CTS ACTIONS 15 and 16. CONDITIONS B and C are not used.	Yes	No, see CN 3.3-131.	No, see CN 3.3-99.	No, see CN 3.3-99.
3.3-105	Function 4.d.(2) of ITS Table 3.3.2-1 and notes (c) and (h) are revised per the DCPP CTS.	Yes	No, see CN 3.3-12.	No, see CN 3.3-12.	No, see CN 3.3-12.
3.3-106	Delete ISTS Required Actions B.2.2 and U.2.2. These Required Actions are not needed due to exiting the APPLICABILITY via Required Actions B.2.1 and U.2.1.	Yes	Yes	Yes	Yes
3.3-107	Based upon operating experience to change Thermal Power in a controlled fassion without challenging the plant and consistent with the CTS which does not have a Completion Time for restoring one channel to OPERABLE ststus; but does pervent going above P-10 until it is restored, the Completion Time for ITS 3.3.1 Required Actions F.1 and F.2 should be increased to 24 hours.	Yes	Yes	Yes	Yes
3.3-108	~~Not used.~~ INSERT 3.3-108(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 20(20)
3.3-109	~~Not used~~ INSERT 3.3-109(a)	~~N/A~~ Yes	~~N/A~~ NO	~~N/A~~ No	~~N/A~~ No Q 8-11
3.3-110	~~Not used~~ INSERT 3.3-110(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q DCALL 005
3.3-111	Add a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the CTS.	~~Yes~~ No, adopted ISTS.	Yes	No-see CN 3.3-48.	Yes DC 3.3-004 No
3.3-112	~~Not used~~ INSERT 3.3-112(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 12-05(3.6)
3.3-113	~~Not used.~~ INSERT 3.3-113(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 2-05(2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 3.3-66 No

Insert for Q 8-11

Enclosure 6B page 17 of 21
Insert 3.3-109 (a)

For DCPP, the addition of the wide range NIS to PAMS requires that the note of SR 3.3.3.2, that excludes the neutron detectors from calibration, be deleted since the wide range NIS is a separate detector form the normal NIS channels.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 12-05 (3.6) **APPLICABILITY:** DC

REQUEST:

Revises the frequency of the surveillance to perform CHANNEL CALIBRATION from 92 days on a staggered basis to once per [92 days].

Comment: Staggered testing is not in DCPP CTS. Delete this DOC. Provide plant-specific data to support the DOC statements that the interval extension to 18 months "is not expected to effect the reliability and performance of the hydrogen monitors...".

Rev 0 proposed 18 month Channel Calibration was withdrawn at 8/14/98 meeting. Provide revised ITS that include the CTS 92 CH. CAL. Eliminate NSHC that no longer apply.

FLOG RESPONSE: This revision to CTS 4.6.4.1 is rescinded for DCPP and the CTS is retained. A surveillance requirement, SR 3.3.3.3, has been added to the ITS to reflect the retention of the CTS 92 day surveillance requirement. New JFD 3.3-112 has been created to justify the addition of SR 3.3.3.3.

ATTACHED PAGES:

Section 3.6

Encl. 2 (3.6)	3/4 6-17 (3.6)
Encl. 3A (3.6)	13 (3.6)
Encl. 3B (3.6)	11 of 12 (3.6)
Encl. 4 (3.6)	38 and 39 (3.6)

Section 3.3

Encl. 5A	3.3-54
Encl. 5B	B 3.3-148
Encl. 6A	9
Encl. 6B	17 of 21

HYDROGEN ANALYZERS/MONITORS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two independent containment hydrogen analyzers/monitors shall be OPERABLE.

APPLICABILITY: MODES 1, ~~and~~ 2 and 3. 12-02-M

ACTION: LCO 3.0.4 is not applicable. 13-05-LS23

a. With one hydrogen analyzer/monitor inoperable, restore the inoperable analyzer/monitor to OPERABLE status within 30 days or ~~be in at least HOT STANDBY within the next 6 hours~~ submit a Special Report in accordance with 10 CFR 50.4 within the following 14 days outlining the preplanned alternate method of monitoring, the cause of the inoperability and the plans and schedule for restoring the hydrogen analyzer/monitor to OPERABLE status. 12-03-LS15

b. With both hydrogen analyzer/monitors inoperable, restore at least one analyzer/monitor to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and be in HOT SHUTDOWN within the next 6 hours. 12-04-M

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen analyzer/monitor shall be demonstrated OPERABLE at least once per ~~92 days~~ ~~18 months~~ by performing a CHANNEL CALIBRATION ~~using a zero and span gas~~. ~~12-05-LS16~~ 12-06-LG

Remove strikeout

3.3 Q 12-05 (3.6)

(new) Perform CHANNEL CHECK at least once per 31 days, to verify hydrogen analyzer/monitor OPERABLE. 12-07-M

if energized

DC 3.6ED

3.3Q12-05(3.6)

CHANGE NUMBER	NSHC	DESCRIPTION
12-05	~~LS16~~	Not used. ~~Revises the Frequency of the hydrogen monitor surveillance to perform CHANNEL CALIBRATION from 92 days on a staggered test basis to once per 18 months consistent with NUREG-1431. The hydrogen monitors are part of the PAM instrumentation and their primary function is to detect high hydrogen concentration conditions that may occur during accident situations. This change is acceptable because the primary means of reducing hydrogen concentration during accidents is via the independent hydrogen recombiners [and hydrogen purge systems]. Failure of the monitors would not affect the capabilities of [these systems]. Further changing the CHANNEL CALIBRATION surveillance interval from 92 days (on a staggered test basis) to every [18 months] is not expected to effect the reliability or performance of the hydrogen monitors based on industry operating experience.~~
12-06	LG	The details provided for performing the CHANNEL CALIBRATION are moved out of the SR. This information is procedural in nature and is not consistent with the level of detail in NUREG-1431. The information is moved to the Bases for ITS SR 3.3.3.2.
12-07	M	A new SR is added for DCPP requiring a CHANNEL CHECK every 31 days (if energized) for the hydrogen analyzer/ monitors. This change is consistent with NUREG-1431.
13-01	LS17	A new Condition has been added to this specification. This Condition describes the Required Action for two hydrogen recombiners inoperable. Whereas in the current specification LCO 3.0.3 applied, this change allows up to 7 days to restore one hydrogen recombiner to OPERABLE status, based on the availability of the containment hydrogen purge system to provide the required safety function. In order to use this ACTION time, the Required Actions require that the hydrogen control function be verified available within 1 hour and once every 12 hours thereafter. This administrative verification will assure that the hydrogen purge system is capable of performing the safety function if an event occurs. Also, the Bases for operation of the recombiners indicates that if a design basis event occurs, 8 days or more would elapse before the containment atmosphere approached the lower flammability limit for hydrogen. Therefore, it is reasonable to assume that the inoperability of two hydrogen recombiners will not significantly jeopardize the capability of the facility to respond to a design basis event. This change is consistent with NUREG-1431 DC-ALL-001
13-02	LS18	~~The current SR to perform a hydrogen recombiner functional test every 6 months is revised to every 18 months consistent with NUREG-1431. This change is considered acceptable due to the redundancy and proven high reliability of the system. Hydrogen recombiner operating experience has shown that functional test failures are rare. In addition, the fully redundant and independent hydrogen purge system provides an alternate, and equally effective, method of controlling hydrogen. The proposed change is in accordance with NUREG-1366, "Improvement to Technical Specification Requirements" and NUREG-1431.~~
13-03	LG	Descriptive information regarding the current hydrogen recombiner surveillances is moved into the Bases. The proposed changes to the surveillances are consistent with the wording and detail present in the NUREG-1431 surveillance requirements. Insert Q3.6.8-2

This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
12-02 M	The MODE of Applicability for the hydrogen monitors is extended to MODE 3.	Yes	Yes	No, CTS hydrogen monitoring requirements are not in this Section.	No, CTS hydrogen monitoring requirements are not in this Section.
12-03 LS15	The ACTION is revised to require a special report to be submitted within 14 days in lieu of being in HOT STANDBY within 6 hours, if one train of hydrogen monitoring cannot be restored to OPERABLE within 30 days.	Yes	Yes	No, CTS hydrogen monitoring requirements are not in this Section.	No, CTS hydrogen monitoring requirements are not in this Section.
12-04 M	Adds the requirement to be in HOT SHUTDOWN within 12 hours if both trains of hydrogen monitoring are inoperable and one train was not restored within 72 hours.	Yes	Yes	No, CTS hydrogen monitoring requirements are not in this Section.	No, CTS hydrogen monitoring requirements are not in this Section.
12-05 LS16	~~Revises the frequency of the surveillance to perform CHANNEL CALIBRATION from 92 days on a staggered basis to once per 18 months~~ Not used	~~Yes~~ NA 3.3 Q 12-05 (3.6)	~~No, CTS requirement redefined (see 12-06-LG).~~ NA	~~No, CTS hydrogen monitoring requirements are not in this Section.~~ NA	~~No, CTS hydrogen monitoring requirements are not in this Section.~~ NA
12-06 LG	The details provided for performing the CHANNEL CALIBRATION are moved out of the SR. The information is moved to the Bases.	Yes	Yes	No, CTS hydrogen monitoring requirements are not in this Section.	No, CTS hydrogen monitoring requirements are not in this Section.
12-07 M	A new SR is added for DCPP requiring a CHANNEL CHECK every 31 days for the hydrogen analyzer/ monitors.	Yes	No, SR already in CTS.	No, CTS hydrogen monitoring requirements are not in this Section.	No, CTS hydrogen monitoring requirements are not in this Section.
13-01 LS17	A new Condition has been added to this specification. This condition describes the Required Action for two hydrogen recombiners inoperable.	Yes	Yes	Yes	Yes
13-02 LS18	The current SR to perform a hydrogen recombiner functional test every 6 months is revised to every 18 months.	~~Yes~~ NO, CTS ~~required~~ already has Refueling Interval which ~~changed to 18~~ is defined as 24 months.	Yes	Yes	No, CTS already has 18 month.

DC-ALL-001

Q 12-05(3.6)3.3
2

NSHC LS16
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

Revises the frequency of the hydrogen monitor surveillance to perform CHANNEL CALIBRATION from 92 days on a staggered basis to once per 18 months consistent with NUREG-1431. The hydrogen monitors are part of the PAM instrumentation and their primary function is to provide information required by the control room operator during accident situations. The hydrogen monitors are provided to detect high hydrogen concentration conditions that represent a potential for containment breach from a hydrogen explosion.

This proposed TS change has been evaluated and it has been determined that it involves NSHC. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21 (b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:

1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*

2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*

3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The hydrogen monitors provide information required by the control room operator during accident situations and their failure would not increase the probability of an accident previously evaluated.

   The failure of the hydrogen monitors could potentially increase the consequences of an accident previously evaluated if hydrogen were allowed to accumulate during an accident situation. However, the primary means of reducing hydrogen concentration during accidents is via the independent hydrogen recombiners [ ]. Failure of the monitors would not affect the capabilities of that system. Further, the extension of the CHANNEL CALIBRATION surveillance interval from 92 days (on a staggered test basis) to every 18 months is not expected to effect the reliability or performance of the hydrogen monitors based on industry operating experience. Also, this surveillance interval is consistent with frequency of other PAM instrumentation. Therefore the extension of the surveillance interval would not involve a significant increase in the consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   The proposed change affects the frequency of a SR for the PAM instrumentation system. It does not involve any change to the configuration or method of operation of any plant equipment, and no new failure MODES have been defined for any plant system or component, nor has any new limiting failure been identified as a result of the proposed change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3.3 Q 12-05 (3.6)

NSHC LS16
(continued)

3. Does this change involve a significant reduction in a margin of safety?

The accident analyses are assumed to be initiated from Conditions which are consistent with the TS LCO. The proposed change does not affect any LCO. Therefore, there is no change in the accident analyses and all relevant event acceptance criteria remain valid. Further, the proposed change has no affect on any actual or regulated failure point which is protected by an event acceptance criterion. Because there is no change in any failure point nor in any event acceptance criteria, there is no reduction in a margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS16" resulting from the conversion to the ITS format satisfy the NSHC standards of 10 CFR 50.92(c), and accordingly a NSHC finding is justified.

SR 3.3.3.2	-------------------NOTE------------------- ~~1. Neutron detectors are excluded from CHANNEL CALIBRATION.~~ ~~2. CHANNEL CALIBRATION for Containment Area Radiation may consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.~~ Perform CHANNEL CALIBRATION.	~~18~~ 24 months	Q 8-11 3.3-109 ~~3.3-20~~ Q 3.3-20 DC ALL-005 B
SR 3.3.3.3	Perform CHANNEL CALIBRATION for Hydrogen Monitors.	92 days	3.3-112 Q 12-05(3.6)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.3.1 (continued)

it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION. The high radiation instrumentation should be compared to similar unit instruments located throughout the unit.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including isolation, indication, and readability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit. If the channels are within the criteria, it is an indication that the channels are OPERABLE.

As specified in the SR, a CHANNEL CHECK is only required for those channels that are normally energized. The Containment Hydrogen Concentration monitors are maintained in a "standby" condition which does not energize all of the monitor components, thus the monitors are not considered "normally energized".

The Frequency of 31 days is based on operating experience that demonstrates that channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

May consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.

SR 3.3.3.2

A CHANNEL CALIBRATION is performed every ~~[18]~~ 24 months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to measured parameter with the necessary range and accuracy. ~~This SR is modified by a two Notes. that Note 1 excludes neutron detectors from CHANNEL CALIBRATION. The calibration method for neutron detectors is specified in the Bases of LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation." Note 2 discusses an allowed methodology for calibrating the~~ Containment Radiation Level (High Range) Function. The Frequency is based on operating experience and consistency with the typical industry refueling cycle.

DC AU-005

QB-11

CHANNEL CALIBRATION of the

Q 3.3-20

REFERENCES

1. ~~[Unit specific document (e.g.,~~ FSAR, ~~NRC Regulatory Guide 1.97 SER letter).]~~ 7.5

2. Regulatory Guide 1.97, ~~[date]~~ Revision 3.

3. NUREG-0737, Supplement 1, "TMI Action Items."

INSERT SR 3.3.3.2
TR 3.3-004

INSERT SR 3.3.3.3

Q 12-05 (3.6)

(continued)

[illegible]

Insert for Q 12-05 (3.6)

Enclosure 5B page B 3.3-148
Insert SR 3.3.3.3

SR 3.3.3.3

A CHANNEL CALIBRATION is performed every 92 days. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to measured parameters with the necessary range and accuracy. The calibration sequence uses a zero and span sample gas in accordance with the manufacturer's recommendations. The Frequency is based on the manufacturer's recommendations and on operating experience.

Not Applicable to DCPP. See Conversion Comparision Table (Enclosure 6B) DC 3.3-004

CHANGE NUMBER	JUSTIFICATION	
3.3-109	~~Not used.~~ INSERT 3.3-109	Q 8-11
3.3-110	~~Not used~~ INSERT 3.3-110	DCALL-005
3.3-111	~~This change adds a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the current TS and is an enhancement which is easily performed and provides additional assurance that the interlocks are functioning correctly.~~	DC 3.3-004
3.3-112	~~Not used.~~ INSERT 3.3-112	Q 12-05(3.6)
3.3-113	~~Not used~~ INSERT 3.3-113	Q 2-05(2.0)
3.3-114	~~Not used~~ INSERT 3.3-114	Q 3.3-66
3.3-115	Not used.	
3.3-116	ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps. The function exists, but is not credited in any accident analysis and is not part of ESFAS Function 6 in the CTS.	
3.3-117	This change to ITS 3.3.1 Condition R reflects current TS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.	
3.3-118	This change is for consistency with ITS 3.7.10 Condition [G].	
3.3-119	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-120	~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.~~ Not used.	Q 3.3-120
3.3-121	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-122	ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring ~~the RTBs to be opened~~ initiating action to with ACTIONS that ensure subcriticality is maintained (i.e., by fully inserting all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135.	TR 3.3-006
3.3-123	This change deletes ACTION L.2 and renumbers L.3 since the requirement to close the unborated water source valves is not in the CTS and is not part of the current licensing basis. This new requirement is not applicable to DCPP which has a licensed dilution accident evaluation (refer to License Amendment 28/27). The current licensing bases in accordance with NUREG 0800, Section 15.4.6 provides adequate assurance that a dilution event will be recognized and arrested in a timely fashion.	DC 3.3-Ed
3.3-124	Consistent with the current TS Table 4.3-1, Note [15], the note for ITS SR 3.3.1.4 is modified, a note is added to Table 3.3.1-1, and Function 20 are modified to clarify that the SR is required for the reactor trip bypass breaker local manual shunt trip only. The Bases for SR 3.3.1.14 clearly state that SR 3.3.1.14 includes the automatic undervoltage trip of the reactor trip bypass breakers. The Note (k) added to Table 3.3.1-1, Function 20 clarifies the Applicability of the undervoltage and shunt trip mechanisms to include those functions of the reactor trip bypass breakers when in use.	

Insert for Q 12-05 (3.6)

Enclosure 6A page 9
Insert 3.3-112

The requirements of CTS 4.6.4.1 are retained and a new surveillance SR 3.3.3.3 is created to incorporate the CTS requirements. The surveillance frequency cannot be relaxed per NUREG-1431 due to the calibration experience associated with the hydrogen monitors.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-103	Function 11 of ITS Table 3.3.1-1 is revised per the DCPP CTS to reflect the current plant design of only a two loop trip. With this revision Condition O is no longer used, since it was only applicable to the single loop trip.	Yes	No	No	No
3.3-104	CONDITION A of ITS 3.3.5 is revised to incorporate CTS ACTIONS 15 and 16. CONDITIONS B and C are not used.	Yes	No, see CN 3.3-131.	No, see CN 3.3-99.	No, see CN 3.3-99.
3.3-105	Function 4.d.(2) of ITS Table 3.3.2-1 and notes (c) and (h) are revised per the DCPP CTS.	Yes	No, see CN 3.3-12.	No, see CN 3.3-12.	No, see CN 3.3-12.
3.3-106	Delete ISTS Required Actions B.2.2 and U.2.2. These Required Actions are not needed due to exiting the APPLICABILITY via Required Actions B.2.1 and U.2.1.	Yes	Yes	Yes	Yes
3.3-107	Based upon operating experience to change Thermal Power in a controlled fassion without challenging the plant and consistent with the CTS which does not have a Completion Time for restoring one channel to OPERABLE ststus; but does pervent going above P-10 until it is restored, the Completion Time for ITS 3.3.1 Required Actions F.1 and F.2 should be increased to 24 hours.	Yes	Yes	Yes	Yes
3.3-108	~~Not used.~~ INSERT 3.3-108(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 20(20)
3.3-109	~~Not used~~ INSERT 3.3-109(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 8-N
3.3-110	~~Not used~~ INSERT 3.3-110(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q DCALL 005
3.3-111	Add a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the CTS.	~~Yes~~ No, Adopted ISTS.	Yes	No-see CN 3.3-48.	Yes DC 3.3-004 No
3.3-112	~~Not used~~ INSERT 3.3-112(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 12-05 (3.6)
3.3-113	~~Not used~~ INSERT 3.3-113(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 2-05 (2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 3.3-66 No

[illegible]

Insert for Q 12-05 (3.6)

Enclosure 6B page 17 of 21
Insert 3.3-112 (a)

The requirements of DCPP CTS 4.6.4.1 are retained and a new surveillance SR 3.3.3.3 is created to incorporate the CTS requirements.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: 2-04 (2.0) **APPLICABILITY:** DC, WC, CW

REQUEST:

Addition of the inequality signs to K_1, K_4, K_5, and K_6, consistent with NUREG-1431 Rev. 1, indicates the conservative direction for these K values.

Comment: Potential OOS – Provide a source document to justify this change, preferably a document that has staff review and approval.

FLOG RESPONSE: This DOC is deleted and the CTS is retained. JFD 3.3-10 is revised for Callaway and WCGS and new JFD 3.3-108 is added for DCPP to justify the revision of the ITS to be consistent with the CTS.

ATTACHED PAGES:

Section 2.0

Encl. 2 (2.0)	2-7 and 2-9
Encl. 3A (2.0)	1
Encl. 3B (2.0)	1

Section 3.3

Encl. 5A	3.3-27 and 28
Encl. 6A	8
Encl. 6B	17 of 21

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

TABLE NOTATIONS

02-01-A

NOTE 1: OVERTEMPERATURE ΔT

remove strikeout

3.3Q2-05(2.0)

$$\Delta T \left(\frac{1+\tau_4 S}{1+\tau_5 S}\right) \leq \Delta T_0 \{K_1 - K_2 \left(\frac{1+\tau_1 S}{1+\tau_2 S}\right) [T - T'] + K_3(P-P') - f_1(\Delta I)\}$$

~~02-05-A~~

Where: $\frac{1+\tau_4 S}{1+\tau_5 S}$ = Lead-lag compensator on measured ΔT

compensator

DC ALL-005

τ_4, τ_5 = Time constants utilized in the lead-lag ~~controller~~ compensator for ΔT, τ_4 = 0 seconds, τ_5 = 0 seconds

Loop specific

remove strikeout

DC ALL-005

~~02-04~~

3.3Q2-04(2.0)

ΔT_0 = Indicated ΔT at RATED THERMAL POWER

~~02-04-M~~

K_1 = 1.2

K_2 = 0.0182/°F

Compensator

DC ALL-005

$\frac{1+\tau_1 S}{1+\tau_2 S}$ = The function generated by the lead-lag ~~controller~~ Compensator for T_{avg} dynamic compensation

Compensator

τ_1, τ_2 = Time constants utilized in the lead-lag ~~controller~~ Compensator for Tavg, τ_1 = 30 seconds, τ_2 = 4 seconds

~~02-04~~

T = Average temperature, °F;

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

02-01-A

TABLE NOTATIONS

NOTE 3: OVERPOWER ΔT

$$\Delta T \frac{1+\tau_4 S}{1+\tau_5 S} \leq \Delta t_o \{K_4 - K_5 \left(\frac{\tau_3 S}{1+\tau_3 S}\right) T - K_6 [T - T''] - f_2(\Delta I)\}$$

Where: $\frac{1+\tau_4 S}{1+\tau_5 S}$ = Lead-lag compensator on measured ΔT

Remove strikeout 3.3 Q 2-04(2.0)

Compensator

τ_4, τ_5 = Time constants utilized in the lead-lag ~~controller~~ for ΔT, τ_4 = ≥ 0 seconds, DC ALL-005 ~~02-04~~

Loop Specific

τ_5 = ≤ 0 seconds

Remove strikeout

Δt_o = Indicated ΔT at RATED THERMAL POWER

K_4 = ≤ 1.072 ~~02-04-M~~

K_5 = ≥ 0.0174/°F for increasing average temperature, and 0 for decreasing average temperature

Compensator DC ALL-005

$\frac{\tau_3 S}{1+\tau_3 S}$ = The function generated by the rate-lag ~~controller~~ for T_{avg} dynamic compensation

Compensator DC ALL-005

τ_3 = Time constants utilized in the rate-lag ~~controller~~ for T_{avg}.

τ_3 = ≥ 10 secs.

Remove strike out

K_6 = ≥ 0.001457/°F for T > T", and 0 for T ≤ T"

T = Average temperature, °F ~~02-04~~

Nominal Loop Specific DC ALL-005

T" = Indicated T_{avg} at RATED THERMAL POWER ≤576.6 °F (Unit 1) and ≤577.6 °F (Unit 2) 02-07-A

S = Laplace transform operator, s^{-1}

$f_2(\Delta I)$ = 0 for all ΔI

DESCRIPTION OF CHANGES TO TS SECTION 2.0

This Enclosure contains a brief description/justification for each marked-up change to existing current plant Technical Specifications (CTS). The changes are keyed to those identified in Enclosure 2 (mark-up of the CTS). The referenced No Significant Hazards Considerations (NSHC) are contained in Enclosure 4. All proposed technical changes to the CTS are discussed below; however, some administrative changes (i.e., format, presentation, and editorial changes made to conform to the Improved Technical Specifications (ITS)) may not be discussed. For Enclosures 3A, 3B, 4, 6A, and 6B, text in brackets "[ ]" indicates the information is specific and is not common to all the Joint Licensing Subcommittee (JLS) Plants. Empty brackets indicate that other JLS plants may have plant specific information in that location.

CHANGE NUMBER	NSHC	DESCRIPTION
01-01	A	Not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparison Table (Enclosure 3B).
01-02	A	The requirements embodied in separate administrative controls dealing with Safety Limits (SL) violations are deleted. Specifications 6.7 is deleted per CN 02-02-LS in Enclosure 3A of the Administrative Controls package.
02-01	A	The requirements of this LCO are moved to ITS LCO 3.3.1.
02-02	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-04	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B) ~~Addition of the inequality signs, consistent with NUREG-1431, indicates the conservative direction for these K values.~~ 3.3Q 2-04(20)
02-05	~~A~~	Not used. ~~This change corrects the OTΔT equation by relocating the bracket to the correct position, as described in CN 3.3-10 of the CTS 3/4.3 attachment.~~ 3.3Q 2-05(20)
02-06	LG	The requirements stipulated in ACTIONS [a and b] are moved to ITS Table 3.3.1-1, with explicit direction contained in [the ITS Background (Trip Setpoints and Allowable Values) Bases, ACTIONS Bases, and SR 3.3.1.10 and SR 3.3.1.11 Bases]. This change removes details more appropriately controlled outside of the TS while retaining those aspects necessary to assure the protection functions are performed if necessary.
02-07.	A	This change incorporates the values for T' (Nominal T_{avg} at RATED THERMAL POWER), that were inadvertently deleted during a previous License Amendment.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-01-A	The specific restrictions on number of loops and licensed reactor power for power operation would be removed from the SLs. These restrictions are stated in other requirements of the license.	No, not in CTS.	No, not in CTS.	Yes	Yes
01-02-A	The requirements embodied in separate administrative controls dealing with SL violations are deleted.	Yes	Yes	Yes	Yes
02-01-A	The requirements of this LCO are moved to ITS LCO 3.3.1.	Yes	Yes	Yes	Yes
02-02-LG	The Reactor Trip System Instrumentation Trip Setpoints are moved to a licensee controlled document.	No, retained CTS. See CN 02-01-A	Yes, moved to ITS 3.3.1 Bases. DC-ALL-003	Yes, moved to USAR.	Yes, moved to ITS 3.3.1 Bases.
02-03-A	CTS ACTION b.1, Equation 2.2-1, and the values for Total Allowance (TA), Z, and Sensor Error (S) are deleted, consistent with NUREG-1431, as they are no longer required.	No, not in CTS.	No, not in CTS.	Yes	Yes
02-04-M	Addition of the inequality signs [to the time constants and to K_1, K_4, K_5, and K_6 consistent with NUREG-1431, indicates the conservative direction for these K values and τ values]	~~Yes~~ No, retained CTS.	No, retained CTS. DC-ALL-003	Yes	Yes 3.3 02-04(2.0)
02-05-A	~~This change corrects the OTΔT equation in the DCPP CTS by relocating the bracket to the correct position, as described in CN 3.3-10 of the CTS 3/4.3 attachment.~~	~~Yes~~ NA Not used	~~No~~ NA DC-ALL-003	~~No~~ NA	~~No~~ NA 3.3 02-05(2.0)
02-06-LG	The requirements stipulated in ACTIONS [a and b] are moved to ITS Table 3.3.1-1, with direction contained in the ITS ACTION Bases.	Yes	Yes	Yes	Yes
02-07-A	This change incorporates the values for T' (Nominal T_{avg} at RATED THERMAL POWER), that were inadvertently deleted during a previous License Amendment for DCPP.	Yes	No	No	No

Table 3.3.1-1 (page ~~7~~9 of ~~8~~10)
Reactor Trip System Instrumentation

Note 1: Overtemperature ΔT

The Overtemperature ΔT Function Allowable Value shall not exceed the following Trip Setpoint by more than ~~[3.8]~~ ~~1.0~~% 0.46 of ΔT span for hot leg or cold leg temperature inputs, 0.14% ΔT span for pressurizer pressure input, 0.19% ΔT span for ΔT inputs. DC ALL-005 B-PS 3.3-110 ~~3.3-10~~

$$\Delta T\frac{(1+\tau_4 s)}{(1+\tau_5 s)} \leq \Delta T_0 \left\{K_1 - K_2\frac{(1+\tau_1 s)}{(1+\tau_2 s)}\left[T - T'\right] + K_3(P-P') - f_1(\Delta I)\right\}$$

Q 2-05(2.0) 3.3-113

3.3-110

Where: ΔT is measured RCS ΔT, °F. loop specific
ΔT_0 is the indicated ΔT at RTP, °F. 3.3-13 DC ALL-005
s is the Laplace transform operator, sec^{-1}.
T is the measured RCS average temperature, °F.
T' is the nominal T_{avg} at RTP, ≤ ~~[588]~~ 576.6 (Unit 1) & 577.6 (Unit 2)°F. loop specific indicated B-PS 3.3-110
P is the measured pressurizer pressure, psig
P' is the nominal RCS operating pressure, ~~≥~~= 2235 psig ED B

K_1 ~~≤~~= ~~[1.09]~~ 1.20 K_2 ~~≥~~= ~~[0.0138]~~ 0.0182/°F K_3 = ~~[0.000671]~~ 0.000831/psig B-PS
τ_1 ~~≥~~= ~~[8]~~ 30 sec τ_2 ~~≤~~= ~~[3]~~ 4 sec ~~τ_3 ≤ [2] sec~~ 3.3-1[illegible]
τ_4 ~~≥~~= ~~[33]~~ 0 sec τ_5 ~~≤~~= ~~[4]~~ 0 sec ~~τ_6 ≤ [2] sec~~ B

$f_1(\Delta I)$ = ~~-0.0126~~ 0.0275{~~35~~ 19 + (q_t - q_b)} when q_t - q_b ≤ - ~~[35]~~19% RTP B-PS
0% of RTP when -~~[35]~~19% RTP < q_t - q_b ≤ 7% RTP 3.3-1[illegible]
~~-0.0105~~ 0.0238{(q_t - q_b) - 7} when q_t - q_b > 7% RTP B

Where q_t and q_b are percent RTP in the upper and lower halves of the core, respectively, and q_t + q_b is the total THERMAL POWER in percent RTP.

Strike out inequalities & insert equal signs

Q 3.3-108
Q 2-04(2.0)

Table 3.3.1-1 (page ~~8~~10 of ~~8~~10)
Reactor Trip System Instrumentation

Note 2: Overpower ΔT

The Overpower ΔT Function Allowable Value shall not exceed the following Trip Setpoint by more than ~~[3]~~ ~~1.0~~% of ΔT span. 0.46 for hot leg or cold leg temperature inputs. DC ALL-005 3.3-110 B-PS 3.3-10

$$\Delta T\frac{(1+\tau_4 s)}{(1+\tau_5 s)} \le \Delta T_O\left\{K_4 - K_5\frac{\tau_3 s}{1+\tau_3 s}T - K_6\left[T - T''\right] - f_2(\Delta I)\right\}$$

3.3-13

Where: ΔT is measured RCS ΔT, °F. loop specific
ΔT_0 is the indicated ΔT at RTP, °F.
s is the Laplace transform operator, sec^{-1}.
T is the measured RCS average temperature, °F.
T'' is the nominal T_{avg} at RTP, ≤ ~~[588]~~ 576.6 (Unit 1) & 577.6 (Unit 2)°F.

loop specific indicated DC ALL-005 3.3-110

K_4 = ~~[1.09]~~ 1.072 K_5 = ~~[0.02]~~ 0.0174/°F for increasing T_{avg} K_6 = ~~[0.00128]~~ 0.00145/°F when T > T'' B-PS

0/°F for decreasing T_{avg} 0/°F when T ≤ T''

~~τ_1 > [8] sec~~ ~~τ_2 < [3] sec~~ τ_3 = ~~[2]~~ 10 sec 3.3-13

τ_4 = ~~[2]~~ 0 sec τ_5 = ~~[10]~~ 0 sec 3.3-10

Strike out inequalities and insert equal signs

$f_2(\Delta I)$ = 0% RTP for all ΔI. Q 2-04(2.0)

Note 3: Steam Generator Water Level Low-Low Trip Time Delay 3.3-108 3.3-46

$TD = B1(P)^3 + B2(P)^2 + B3(P) + B4$

Where: P = RCS Loop ΔT Equivalent to Power (%RTP), P ≤ 50% RTP

TD = Time delay for Steam Generator Water Level Low-Low Reactor Trip (in seconds).

B1 = -0.007128

B2 = +0.8099

B3 = -31.40

B4 = +464.1

CHANGE NUMBER	JUSTIFICATION
3.3-100	Not used.
3.3-101	The Note for ITS SR 3.3.1.12 is deleted since the plant design no longer includes the RTD bypass. The SR is retained and is applied to the required seismic trip instrumentation per the current licensing basis. Where cited in Table 3.3.2-1, a change to SR 3.3.1.10 has been made.
3.3-102	The control room (CR) does not have CR Atmosphere monitors as part of its current design. There are redundant CR intake monitors for each intake. The normal control room intakes are in an area common to both units, thus there are a total of four normal intake monitors. However, only two monitors, one from each unit, are required for the CRVS to be OPERABLE; this is explained in the Bases.
3.3-103	Function 11 of ITS Table 3.3.1-1 is revised per the CTS to reflect the current plant design of only a two loop trip. With this revision, ACTION O is no longer used since it was only applicable to the single loop trip.
3.3-104	CONDITION A of ITS 3.3.5 is revised to incorporate CTS ACTION 16. CONDITIONS B and C are not used.
3.3-105	Function 4.d.(2) of ITS Table 3.3.2-1 and Notes (c) and (h) are revised per current licensing basis.
3.3-106	ISTS 3.3.1 Required Actions B.2.2 and U.2.2 are not used, consistent with the current TS requirements of LCO 3.3.1 ACTION Statements [1, and 12] and the Applicability for ITS Table 3.3.1-1 Functions 1 and 20. The current TS provide for these Functions to be restored to OPERABLE status within 48 hours or the plant must be in HOT STANDBY within the next 6 hours when the plant is initially in MODES 1 or 2. Once HOT STANDBY has been reached, the shutdown mode applicabilities, i.e. MODES 3, 4, and 5, prevail. When in these MODES, another 48 hour AOT is allowed by the current TS or rod withdrawal must be precluded in the next one hour. Therefore, ISTS Required Actions B.2.2 and U.2.2 for Functions 1 and 20 in Table 3.3.1-1 are not necessary since the performance of Required Action B.2.1 and U.2.1 takes the plant to MODE 3, exits the Applicability, and requires entry into Condition C. This change is consistent with ITS ~~1.3~~ and 3.0.~~4~~ And traveler TSTF-135 Rev.3. TR 3.3-006
3.3-107	Based upon operating experience to change Thermal Power in a controlled fashion without challenging the plant and consistent with the current TS which does not have a Completion Time for restoring one channel to OPERABLE status; but does prevent going above P-10 until it is restored, the Completion Time for ITS 3.3.1 Required Actions F.1 and F.2 should be increased to 24 hours. Condition F of ITS 3.3.1 is for one Intermediate Range Neutron Flux channel inoperable. Reactor protection would be provided by the OPERABLE Intermediate Range Neutron Flux channel and OPERABLE Power Range Neutron Flux channels. Indication would be available from the OPERABLE Intermediate Range Neutron Flux channel [, from OPERABLE Gamma-Metrics Neutron Flux detectors,] and from OPERABLE Power Range Neutron Flux channels with power approaching P-10. ~~The Westinghouse Owners Group is considering a generic change on this issue, but deliberations were not completed at the time of our submittal.~~ See TSTF-246. TR 3.3-001
3.3-108	~~Not used.~~ INSERT 3.3-108 Q 2-04 (2.0)

[illegible]

Insert for Q 2-04 (2.0)

Enclosure 6A page 8
Insert 3.3-108

ITS Table 3.3.1-1 Note 1 and Note 2 are revised to replace the inequality signs for K_1, K_4, K_5, K_6, τ_1, τ_2, τ_3, τ_4, and τ_5 with equal signs consistent with CTS Table 2.2-1, NOTE 1 and NOTE 3.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-103	Function 11 of ITS Table 3.3.1-1 is revised per the DCPP CTS to reflect the current plant design of only a two loop trip. With this revision Condition O is no longer used, since it was only applicable to the single loop trip.	Yes	No	No	No
3.3-104	CONDITION A of ITS 3.3.5 is revised to incorporate CTS ACTIONS 15 and 16. CONDITIONS B and C are not used.	Yes	No, see CN 3.3-131.	No, see CN 3.3-99.	No, see CN 3.3-99.
3.3-105	Function 4.d.(2) of ITS Table 3.3.2-1 and notes (c) and (h) are revised per the DCPP CTS.	Yes	No, see CN 3.3-12.	No, see CN 3.3-12.	No, see CN 3.3-12.
3.3-106	Delete ISTS Required Actions B.2.2 and U.2.2. These Required Actions are not needed due to exiting the APPLICABILITY via Required Actions B.2.1 and U.2.1.	Yes	Yes	Yes	Yes
3.3-107	Based upon operating experience to change Thermal Power in a controlled fassion without challenging the plant and consistent with the CTS which does not have a Completion Time for restoring one channel to OPERABLE ststus; but does pervent going above P-10 until it is restored, the Completion Time for ITS 3.3.1 Required Actions F.1 and F.2 should be increased to 24 hours.	Yes	Yes	Yes	Yes
3.3-108	~~Not used.~~ INSERT 3.3-108(a)	~~N/A~~ YES	~~N/A~~ NO	~~N/A~~ NO	~~N/A~~ NO Q 20(20)
3.3-109	~~Not used~~ INSERT 3.3-109(a)	~~N/A~~ YES	~~N/A~~ NO	~~N/A~~ NO	~~N/A~~ NO Q 8-11
3.3-110	~~Not used~~ INSERT 3.3-110(a)	~~N/A~~ YES	~~N/A~~ NO	~~N/A~~ NO	~~N/A~~ NO Q DCALL005
3.3-111	Add a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the CTS.	~~Yes~~ No, adopted ISTS.	Yes	No-see CN 3.3-48.	Yes DC 3.3-004
3.3-112	~~Not used~~ INSERT 3.3-112(a)	~~N/A~~ YES	~~N/A~~ NO	~~N/A~~ NO	~~N/A~~ NO Q 12-05(3.6)
3.3-113	~~Not used~~ INSERT 3.3-113(a)	~~N/A~~ YES	~~N/A~~ NO	~~N/A~~ NO	~~N/A~~ Q 2-05(2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114(a)	~~N/A~~ Yes	~~N/A~~ NO	~~N/A~~ NO	~~N/A~~ NO Q 3.3-66

[illegible]

Insert for Q 2-04 (2.0)

Enclosure 6B page 17 of 21
Insert 3.3-108 (a)

For DCPP, ITS Table 3.3.1-1 Note 1 and Note 2 are revised to replace the inequality signs for K_1, K_4, K_5, K_6, τ_1, τ_2, τ_3, τ_4, and τ_5 with equal signs consistent with CTS Table 2.2-1, NOTE 1 and NOTE 3.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: 2-05 (2.0) **APPLICABILITY:** DC

REQUEST:

This change corrects the OT)T and OP)T equation in the DCPP CTS by relocating the bracket to the correct position, as described in CN 3.4-10 of the 3.3 package.

Comment: Potential 00S - Provide a source document to justify this change, preferably a document that has staff review and approval. The correction to the equation in Note 1 of Table 2.2-1 should be evaluated for the impact on plant operation. Has the plant been using an incorrect setpoint, or has the plant been using a setpoint different from that in the technical specifications? Explain the results of this evaluation.

FLOG RESPONSE: This DOC and JFD 3.3-10 are deleted as applicable to DCPP. DCPP has always used the correct setpoint since the manner in which the electronics have processed the OTDT setpoint signal has been consistent with Westinghouse drawing 5653D74, "Primary Coolant System Trip Signals". DCPP will retain the CTS and the ITS is revised accordingly via JFD 3.3-113.

ATTACHED PAGES:

Section 2.0

Encl. 2 (2.0) 2-7
Encl. 3A (2.0) 1
Encl. 3B (2.0) 1 of 1

Section 3.3

Encl. 5A 3.3-27
Encl. 6A 2 and 9
Encl. 6B 2 and 17 of 21

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

TABLE NOTATIONS

02-01-A

NOTE 1: OVERTEMPERATURE ΔT

remove strikeout

3.3 Q2-05(2.0)

$$\Delta T \left(\frac{1+\tau_4 S}{1+\tau_5 S}\right) \leq \Delta T_0 \left\{K_1 - K_2 \left(\frac{1+\tau_1 S}{1+\tau_2 S}\right) [T - T'] + K_3(P - P') - f_1(\Delta I)\right\}$$

~~02-05-A~~

Where: $\frac{1+\tau_4 S}{1+\tau_5 S}$ = Lead-lag compensator on measured ΔT

Compensator

DC ALL-005

τ_4, τ_5 = Time constants utilized in the lead-lag ~~controller~~ Compensator for ΔT. τ_4 = 0 seconds, τ_5 = 0 seconds

Loop specific

remove strikeout

DC ALL-005

~~02-04~~

ΔT_0 = Indicated ΔT at RATED THERMAL POWER

3.3 Q2-04(2.0)

K_1 = 1.2

~~02-04-M~~

K_2 = 0.0182/°F

Compensator

DC ALL-005

$\frac{1+\tau_1 S}{1+\tau_2 S}$ = The function generated by the lead-lag ~~controller~~ Compensator for T_{avg} dynamic compensation

Compensator

τ_1, τ_2 = Time constants utilized in the lead-lag ~~controller~~ Compensator for Tavg. τ_1 = 30 seconds τ_2 = 4 seconds

~~02-04~~

T = Average temperature, °F.

DESCRIPTION OF CHANGES TO TS SECTION 2.0

This Enclosure contains a brief description/justification for each marked-up change to existing current plant Technical Specifications (CTS). The changes are keyed to those identified in Enclosure 2 (mark-up of the CTS). The referenced No Significant Hazards Considerations (NSHC) are contained in Enclosure 4. All proposed technical changes to the CTS are discussed below; however, some administrative changes (i.e., format, presentation, and editorial changes made to conform to the Improved Technical Specifications (ITS)) may not be discussed. For Enclosures 3A, 3B, 4, 6A, and 6B, text in brackets "[ ]" indicates the information is specific and is not common to all the Joint Licensing Subcommittee (JLS) Plants. Empty brackets indicate that other JLS plants may have plant specific information in that location.

CHANGE NUMBER	NSHC	DESCRIPTION
01-01	A	Not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparison Table (Enclosure 3B).
01-02	A	The requirements embodied in separate administrative controls dealing with Safety Limits (SL) violations are deleted. Specifications 6.7 is deleted per CN 02-02-LS in Enclosure 3A of the Administrative Controls package.
02-01	A	The requirements of this LCO are moved to ITS LCO 3.3.1.
02-02	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-04	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B) ~~Addition of the inequality signs consistent with NUREG-1431, indicates the conservative direction for these K values.~~ 3.3Q 2-04(2.0)
02-05	A e	Not used. ~~This change corrects the OTΔT equation by relocating the bracket to the correct position as described in CN 3.3-10 of the CTS 3/4.3 attachment.~~ 3.3Q 205(2.0)
02-06	LG	The requirements stipulated in ACTIONS [a and b] are moved to ITS Table 3.3.1-1, with explicit direction contained in [the ITS Background (Trip Setpoints and Allowable Values) Bases, ACTIONS Bases, and SR 3.3.1.10 and SR 3.3.1.11 Bases]. This change removes details more appropriately controlled outside of the TS while retaining those aspects necessary to assure the protection functions are performed if necessary.
02-07.	A	This change incorporates the values for T' (Nominal T_{avg} at RATED THERMAL POWER), that were inadvertently deleted during a previous License Amendment.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-01-A	The specific restrictions on number of loops and licensed reactor power for power operation would be removed from the SLs. These restrictions are stated in other requirements of the license.	No, not in CTS.	No, not in CTS.	Yes	Yes
01-02-A	The requirements embodied in separate administrative controls dealing with SL violations are deleted.	Yes	Yes	Yes	Yes
02-01-A	The requirements of this LCO are moved to ITS LCO 3.3.1.	Yes	Yes	Yes	Yes
02-02-LG	The Reactor Trip System Instrumentation Trip Setpoints are moved to a licensee controlled document.	No, retained CTS. (See CN 02-01-A)	Yes, moved to ITS 3.3.1 Bases. DC-ALL-003	Yes, moved to USAR.	Yes, moved to ITS 3.3.1 Bases.
02-03-A	CTS ACTION b.1, Equation 2.2-1, and the values for Total Allowance (TA), Z, and Sensor Error (S) are deleted, consistent with NUREG-1431, as they are no longer required.	No, not in CTS.	No, not in CTS.	Yes	Yes
02-04-M	Addition of the inequality signs [(] to the time constants and [)] to K_1, K_4, K_5, and K_6 consistent with NUREG-1431, indicates the conservative direction for these K values [(] and τ values [)]	~~Yes~~ No retained CTS.	No, retained CTS. DC-ALL-003	Yes	Yes 3.3 Q2-04(2.0)
02-05-A	~~This change corrects the OTΔT (...) equation in the DCPP CTS by relocating the bracket to the correct position, as described in CN 3.3-10 of the CTS 3/4.3 attachment.~~	~~Yes~~ NA Not used	~~No~~ NA DC-ALL-003	~~No~~ NA	~~No~~ NA 3.3 Q2-05(2.0)
02-06-LG	The requirements stipulated in ACTIONS [a and b] are moved to ITS Table 3.3.1-1, with direction contained in the ITS ACTION Bases.	Yes	Yes	Yes	Yes
02-07-A	This change incorporates the values for T' (Nominal T_{avg} at RATED THERMAL POWER), that were inadvertently deleted during a previous License Amendment for DCPP.	Yes	No	No	No

Table 3.3.1-1 (page ~~7~~9 of ~~8~~10)
Reactor Trip System Instrumentation

Note 1: Overtemperature ΔT

The Overtemperature ΔT Function Allowable Value shall not exceed the following Trip Setpoint by more than ~~[3.8]~~ ~~1.0~~ 0.46% of ΔT span for hot leg or cold leg temperature inputs, 0.14% ΔT span for pressurizer pressure input, 0.19% ΔT span for ΔI inputs. DC ALL-005 | B-PS 3.3-110 ~~3.3-10~~

$$\Delta T\frac{(1+\tau_4 s)}{(1+\tau_5 s)} \le \Delta T_O\left\{K_1 - K_2\frac{(1+\tau_1 s)}{(1+\tau_2 s)}\left[T - T'\right] + K_3(P - P') - f_1(\Delta I)\right\}$$

Q 2-05(2.0) 3.3-113

3.3-110 3.3-13 DC ALL-005

Where: ΔT is measured RCS ΔT, °F. loop specific
ΔT_0 is the indicated ΔT at RTP, °F.
s is the Laplace transform operator, sec^{-1}.
T is the measured RCS average temperature, °F.
T' is the nominal T_{avg} at RTP, ≤ ~~[588]~~ 576.6 (Unit 1) & 577.6 (Unit 2)°F. loop specific indicated | B-PS 3.3-110
P is the measured pressurizer pressure, psig
P' is the nominal RCS operating pressure, ~~≥~~ = 2235 psig | ED B

K_1 ~~≤~~ = ~~[1.09]~~ 1.20 K_2 ~~≥~~ = ~~[0.0138]~~ 0.0182/°F K_3 = ~~[0.000671]~~ 0.000831/psig | B-PS 3.3-1x
τ_1 ~~≥~~ = ~~[8]~~ 30 sec τ_2 ~~≤~~ = ~~[3]~~ 4 sec   ~~τ_3 ≤ [2] sec~~ | B
τ_4 ~~≥~~ = ~~[33]~~ 0 sec τ_5 ~~≤~~ = ~~[4]~~ 0 sec   ~~τ_6 ≤ [2] sec~~ | B-PS 3.3-1x B

$f_1(\Delta I)$ = ~~-0.0126~~ 0.0275{~~35~~ 19 + (q_t - q_b)} when q_t - q_b ≤ - ~~[35]~~ 19% RTP
0% of RTP when -~~[35]~~ 19% RTP < q_t - q_b ≤ 7% RTP
~~-0.0105~~ 0.0238{(q_t - q_b) - 7} when q_t - q_b > 7% RTP

Where q_t and q_b are percent RTP in the upper and lower halves of the core, respectively, and q_t + q_b is the total THERMAL POWER in percent RTP.

Strike out inequalities & insert equal signs

Q 3.3-108
Q 2-04 (2.0)

CHANGE NUMBER	JUSTIFICATION
	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.3-10	~~[The Overtemperature ΔT setpoint equation had a bracket in the wrong place and was corrected. The OTΔT equation in NUREG-1431 Note 1 shows the lead-lag compensation associated with the term $(1 + \tau_1 S)/(1 + \tau_2 S)$ (note that CN 3.3-13 revised the tau subscripts per CTS) to be applicable to the T′ term. This is incorrect. This error can also be found in Revision 4a of NUREG-0452. This error apparently was taken from Section A-3 and Figure A-1 of WCAP-8745-P and WCAP-8746 as well as from Figure 6.1-4 of WCAP-7907-P-A, "LOFTRAN Code Description," April 1984. The latter reference has been corrected in Figure 6.1-4 of WCAP-7878, "LOFTRAN Code Description and User's Manual," Revision 5, November 1989. The lead-lag compensation applies only to the measured T_{avg}. This is consistent with the manner in which the electronics have always processed the OTΔT setpoint signal, as depicted on Westinghouse drawing 8756D37 sheets 7-10 described in FSAR Section 7.2]. Another change needed for the Overtemperature ΔT setpoint equation concerns the inequality sign for the K_2 term. As defined in NUREG-1431, this term has a "≥" sign. In this case, the Overtemperature ΔT setpoint would be conservatively decreased if T_{avg} were increasing above [576.6°F for Unit 1 and 577.6°F for Unit 2], i.e. with (T-T′) a positive value. However, if T_{avg} were decreasing below [576.6°F or 577.6°F, for the respective Units,] such that (T-T′) is a negative value, the ≥ sign could result in an unwanted increase in the Overtemperature ΔT setpoint. Therefore, the inequality sign for K_2 is changed to an equal sign, consistent with the current TS. This issue is avoided in the construct of the Overtemperature ΔT setpoint by setting K_5 and K_6 to zero for decreasing T_{avg}, i.e. K_5 and K_6 are conditionally defined. In addition, the $f_1(\Delta I)$ penalty function was corrected to reflect correct decimal point placement and to ensure a reduction in the setpoint if $(q_t - q_b)$ is outside the deadband. The $f_1(\Delta I)$ value must be positive such that it lowers the setpoint when subtracted. The inequality signs around the deadband were corrected to reflect a zero penalty when $(q_t - q_b)$ is within the deadband. Decimal point placement corrections have been made to recognize that the penalty function gains have units of (°F or % ΔT span per % RTP).~~ Q 2-05(2.0)
3.3-11	Added "or ~~Rod Control System~~ all rods fully inserted and incapable of rod withdrawal," which makes Note (f) the complete antithesis of Note (b). D 3.3-Ed
3.3-12	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-13	The equations for Overtemperature ΔT and Overpower ΔT are revised to be consistent with the CTS. The value of the time constant τ_6 has always been 0 seconds and the factor utilizing this time constant has not been shown as part of the Overtemperature ΔT equation in licensing documents since the factor value has been unity. Thus, the factor utilizing this time constant has been deleted.
3.3-14	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-15	The CHANNEL CHECK surveillance (SR 3.3.2.1) is deleted from the P-11 [ ] interlock because CHANNEL CHECKS are not applicable for permissive functions. This change is consistent with the current TS.
3.3-16	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-17	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-18	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-19	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

Not Applicable to DCPP. See Conversion Comparision Table (Enclosure 6B)

DC 3.3-004

CHANGE NUMBER	JUSTIFICATION	
3.3-109	~~Not used.~~ INSERT 3.3-109	Q 8-11
3.3-110	~~Not used.~~ INSERT 3.3-110	DCALL-005
3.3-111	~~This change adds a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the current TS and is an enhancement which is easily performed and provides additional assurance that the interlocks are functioning correctly.~~	DC 3.3-004
3.3-112	~~Not used.~~ INSERT 3.3-112	Q 12-05 (3.6)
3.3-113	~~Not used.~~ INSERT 3.3-113	Q 2-05 (2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114	Q 3.3-66
3.3-115	Not used.	
3.3-116	ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps. The function exists, but is not credited in any accident analysis and is not part of ESFAS Function 6 in the CTS.	
3.3-117	This change to ITS 3.3.1 Condition R reflects current TS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.	
3.3-118	This change is for consistency with ITS 3.7.10 Condition [G].	
3.3-119	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-120	~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.~~ Not used.	Q 3.3-120
3.3-121	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-122	ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring the RTBs to be opened with ACTIONS that ensure subcriticality is maintained (i.e., by initiating action to fully inserting all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135.	TR 3.3-006
3.3-123	This change deletes ACTION L.2 and renumbers L.3 since the requirement to close the unborated water source valves is not in the CTS and is not part of the current licensing basis. This new requirement is not applicable to DCPP which has a licensed dilution accident evaluation (refer to License Amendment 28/27). The current licensing bases in accordance with NUREG 0800, Section 15.4.6 provides adequate assurance that a dilution event will be recognized and arrested in a timely fashion.	DC 3.3-Ed
3.3-124	Consistent with the current TS Table 4.3-1, Note [15], the note for ITS SR 3.3.1.4 is modified, a note is added to Table 3.3.1-1, and Function 20 are modified to clarify that the SR is required for the reactor trip bypass breaker local manual shunt trip only. The Bases for SR 3.3.1.14 clearly state that SR 3.3.1.14 includes the automatic undervoltage trip of the reactor trip bypass breakers. The Note (k) added to Table 3.3.1-1, Function 20 clarifies the Applicability of the undervoltage and shunt trip mechanisms to include those functions of the reactor trip bypass breakers when in use.	

[illegible]

Insert for Q 2-05 (2.0)

Enclosure 6A page 9
Insert 3.3-113

The bracket in the Overtemperature ΔT equation is moved to be consistent with the CTS.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-07	Note 3 is added to ITS SR 3.3.1.11 to be consistent with the CTS Table 4.3-1 Note [5]. This ensures that this exception, for power and intermediate range detector plateau voltage verification as discussed in the ITS BASES for SR 3.3.1.11, is included in the Technical Specifications rather than being only found in the BASES.	Yes	Yes	Yes	Yes
3.3-08	Deletes the Reviewer's Note in ITS Tables 3.3.1-1 and 3.3.2-1 and adds a Note reflecting the Allowable Value as the LSSS. Trip Setpoints are listed in the Bases.	No, retained CTS format.	Yes	Yes	Yes
3.3-09	The addition of footnote [(m)] to ITS Table 3.3.1-1 for Function 10 clarifies the low flow setpoint relationship to the quantity identified as [Minimum Measured Flow], consistent with the CTS.	Yes	No, not in CTS.	No, not in CTS. 3.3.d.6EU	Yes, (CTS per OL Amendment No. 15 dated 4-8-86)
3.3-10	[The Overtemperature ΔT setpoint equation had a bracket in the wrong place and was corrected.] In addition, the f_1 (ΔI) penalty function was corrected and the K_2 inequality sign was changed to an equal sign.	~~Yes~~ No, will retain CTS.	No, see CN 3.3-38.	Yes Q 2-05(2.0) DC ALL-002	Yes, (CTS per OL Amendment No. 102 dated 8-21-95)
3.3-11	Added "or Rod Control System incapable of rod withdrawal," which makes Note (f) the complete antithesis of Note (b).	Yes	No, see CN 3.3-41.	No, see CN 3.3-41.	No, see CN 3.3-41.
3.3-12	Corrects typo in the inequality sign of ITS Table 3.3.2-1 Note (h).	No, see CN 3.3-105.	Yes	Yes	Yes
3.3-13	The equations for Overtemperature ΔT and Overpower ΔT are revised to be consistent with the DCPP CTS. The value of the time constant τ_6 has always been 0 seconds and the factor utilizing the time constant has not been shown as part of the equation in licensing documents since the factor value has been unity. Thus, the factors utilizing the time constant has been deleted.	Yes	No	No	No
3.3-14	Retains the monthly COT for Function 6.h of ITS Table 3.3.2-1, per CTS Table 4.3-2 Functional Unit 6.h. No TADOT is performed.	No, not in CTS.	No, not in CTS.	Yes	Yes

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-103	Function 11 of ITS Table 3.3.1-1 is revised per the DCPP CTS to reflect the current plant design of only a two loop trip. With this revision Condition O is no longer used, since it was only applicable to the single loop trip.	Yes	No	No	No
3.3-104	CONDITION A of ITS 3.3.5 is revised to incorporate CTS ACTIONS 15 and 16. CONDITIONS B and C are not used.	Yes	No, see CN 3.3-131.	No, see CN 3.3-99.	No, see CN 3.3-99.
3.3-105	Function 4.d.(2) of ITS Table 3.3.2-1 and notes (c) and (h) are revised per the DCPP CTS.	Yes	No, see CN 3.3-12.	No, see CN 3.3-12.	No, see CN 3.3-12.
3.3-106	Delete ISTS Required Actions B.2.2 and U.2.2. These Required Actions are not needed due to exiting the APPLICABILITY via Required Actions B.2.1 and U.2.1.	Yes	Yes	Yes	Yes
3.3-107	Based upon operating experience to change Thermal Power in a controlled fassion without challenging the plant and consistent with the CTS which does not have a Completion Time for restoring one channel to OPERABLE ststus; but does pervent going above P-10 until it is restored, the Completion Time for ITS 3.3.1 Required Actions F.1 and F.2 should be increased to 24 hours.	Yes	Yes	Yes	Yes
3.3-108	~~Not used.~~ INSERT 3.3-108(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 20(20)
3.3-109	~~Not used~~ INSERT 3.3-109(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 8-11
3.3-110	~~Not used~~ INSERT 3.3-110(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q DCALL-005
3.3-111	Add a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the CTS.	~~Yes~~ No, Adopted ISTS.	Yes	No-see CN 3.3-48.	Yes DC 3.3-004
3.3-112	~~Not used~~ INSERT 3.3-112(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 12-05(3.6)
3.3-113	~~Not used~~ INSERT 3.3-113(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 2-05(2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 3.3-66 No

[illegible]

Insert 3.3-113 (a)

For DCPP, the bracket in the Overtemperature ΔT equation is moved to be consistent with the CTS.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: 2-06 (2.0) **APPLICABILITY:** DC

REQUEST:

The requirements stipulated in ACTIONS [a and b] are moved to ITS Table 3.3.1-1, with explicit direction contained in the ITS Bases.

Comment: {DC} The Bases uses the TSP as the LSSS. Other plants committed to the AV. The AV changes are consistent with 2-06 LG. Revise Bases to adopt the AV as the LSSS.

FLOG RESPONSE: LAR 96-10, dated December 9, 1996, revised the CTS Bases to state that "The Allowable Values are considered to be the Limiting Safety System Settings (LSSS) as identified in 10 CFR 50.36 and have been selected to mitigate the consequences of accidents." LAR 96-10 was approved by the NRC as LA 122/120 on February 17, 1998. The CTS Bases revision will be incorporated into the ITS Bases for 3.3.1 and 3.3.2.

ATTACHED PAGES:

Encl. 5B B 3.3-1, B 3.3-5 and B 3.3-67

B 3.3 INSTRUMENTATION

B 3.3.1 Reactor Trip System (RTS) Instrumentation

BASES

BACKGROUND

The RTS initiates a unit shutdown, based on the values of selected unit parameters, to protect against violating the core fuel design limits and Reactor Coolant System (RCS) pressure boundary during anticipated operational occurrences (AOOs) and to assist the Engineered Safety Features (ESF) Systems in mitigating accidents.

The protection and monitoring systems have been designed to assure safe operation of the reactor. This is achieved by specifying limiting safety system settings (LSSS) in terms of parameters directly monitored by the RTS, as well as specifying LCOs on other reactor sy~~stem parameters and equipment performance.~~ Q 2-06(2.0)

The LSSS, as defined in 10 CFR 50.36, are ~~defined in this specification~~ as the Allowable Values ~~Trip Setpoints~~, and in conjunction with the LCOs, establish the threshold for protective system action to prevent exceeding acceptable limits during Design Basis Accidents (DBAs).

During AOOs, which are those events expected to occur ~~one or more times~~more than once during the unit life, the acceptable limits are:

1. The Departure from Nucleate Boiling Ratio (DNBR) shall be maintained above the Safety Limit (SL) value to prevent departure from nucleate boiling (DNB);

2. Fuel centerline melt shall not occur; and

3. The RCS pressure SL of ~~2750 psia~~ 2735 psig shall not be exceeded.

   Operation within the SLs of Specification 2.0, "Safety Limits (SLs)," also maintains the above values and assures that offsite dose will be within the 10 CFR 50 and 10 CFR 100 criteria during AOOs.

Accidents are events that are analyzed even though they are not expected to occur during the unit life. The acceptable limit during accidents is that offsite dose shall be maintained within an acceptable fraction of 10 CFR 100 limits. Different accident categories are allowed a

(continued)

BASES

BACKGROUND (continued)

Trip Setpoints and Allowable Values

Setpoints in accordance with the Allowable Value ensure that SLs are not violated during AOOs (and that the consequences of DBAs will be acceptable, providing the unit is operated from within the LCOs at the onset of the AOO or DBA and the equipment functions as designed). Note that in the accompanying LCO 3.3.1, the ~~Trip Setpoints~~ Allowable Values of Table 3.3.1-1 are the LSSS as defined in 10 CFR 50.36 62-06(2.0)

Each channel of the process control equipment can be tested on line to verify that the signal or setpoint accuracy is within the specified allowance requirements ~~of Reference 2~~. Once a designated channel is taken out of service for testing, a simulated signal is injected in place of the field instrument signal, or in the case of the Power Range channels the test signal is added to the field instrument signal. The process equipment for the channel in test is then tested, verified, and calibrated. SRs for the channels are specified in the SRs section.

The Trip Setpoints and Allowable Values listed in Table 3.3.1-1 are based on the methodology described in Reference 6, which incorporates all of the known uncertainties applicable for each channel. The magnitudes of these uncertainties are factored into the determination of each Trip Setpoint. All field sensors and signal processing equipment for these channels are assumed to operate within the allowances of these uncertainty magnitudes. INSERT B 3.3.1 BKG (C) DC ALL-005

INSERT CA 3.3-014(a) CA 3.3-014

Solid State Protection System

The SSPS equipment is used for the decision logic processing of outputs from the signal processing equipment bistables. To meet the redundancy requirements, two trains of SSPS, each performing the same functions, are provided. If one train is taken out of service for maintenance or test purposes, the second train will provide reactor trip and/or ESF actuation for the unit. If both trains are taken out of service or placed in test, a reactor trip will result. Each train is packaged in its own cabinet for physical and electrical separation to satisfy separation and independence requirements. The system has been designed to trip in the event of a loss of power, directing the unit to a safe shutdown condition.

(continued)

BASES

BACKGROUND

Signal Processing Equipment (continued)

actuation. Again, a single failure will neither cause nor prevent the protection function actuation.

These requirements are described in IEEE-279-1971 (Ref. 4). The actual number of channels required for each unit parameter is specified in Reference 2.

The channels are designed such that testing required to be performed at power may be accomplished without causing an ESF actuation.

INSERT B 3.3.2 BKG (1) DCALL-002

Trip Setpoints and Allowable Values

two-sided tolerance CA 3.3-014

The Trip Setpoints are the nominal values at which the bistables are set. Any bistable is considered to be properly adjusted when the "as left" value is within the band for ~~CHANNEL CALIBRATION~~ calibration accuracy.

INSERT 3.3-2(A) Q2-06(2.0)

The Trip Setpoints used in the bistables are based on the analytical limits stated in Reference 2. The selection of these Trip Setpoints is such that adequate protection is provided when all sensor and processing time delays are taken into account. To allow for calibration tolerances, instrumentation uncertainties, instrument drift, and severe environment errors for those ESFAS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 5), the Trip Setpoints and Allowable Values specified in Table 3.3.2-1 in the accompanying LCO are conservatively adjusted with respect to the analytical limits. A detailed description of the methodology used to calculate the Trip Setpoints, including their explicit uncertainties, is provided in ~~the "RTS/ESFAS Setpoint Methodology Study" Study"~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagle 21 Version," May 1993(Ref. 6). The actual nominal Trip Setpoint entered into the bistable is more conservative than that specified by the Allowable Value to account for changes in random measurement errors detectable by a COT. One example of such a change in measurement error is drift during the surveillance interval. If the measured setpoint does not exceed the Allowable Value, the bistable is considered OPERABLE.

Insert strike out DCALL-002

INSERT B 3.3.2 BKG(H) INSERT B 3.3.2 BKG(F) DCALL-005

Setpoints in accordance with the Allowable Value ensure that the consequences of Design Basis Accidents (DBAs) will be acceptable, providing the unit is operated from within the LCOs at the onset of the DBA and the equipment functions as designed.

(continued)

[illegible]

Insert for Q 2-06 (2.0)

Enclosure 5B page B 3.3-67
Insert 3.3.2(A)

The Allowable values are considered to be the Limiting Safety System Settings (LSSS), as identified in 10 CFR 50.36, and have been selected to mitigate the consequences of accidents.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: 2-07 (2.0) **APPLICABILITY:** DC

REQUEST:

This change incorporates the values for T" (Nominal T_{avg} at RATED THERMAL POWER), that were inadvertently deleted during a previous License Amendment for DCPP.

Comment: Provide a source document to justify this change, preferably a document that has staff review and approval.

FLOG RESPONSE: LAR 92-05 (which requested CTS changes to incorporate revisions required by the RTD bypass elimination and the installation of Eagle-21) inadvertently deleted the values for T' and T" (Nominal T_{AVG} at RATED THERMAL POWER) for each Unit during the conversion of NOTE 1 and NOTE 3 of table 2.2-1. LAR 92-05 was approved by the NRC as LA 84/83 on October 7, 1993. This change, DOC 2-07-A of Section 2.0, inserts the values for T' and T" (Nominal T_{AVG} at RATED THERMAL POWER) for each Unit that were previously specified prior to being inadvertently deleted.

ATTACHED PAGES:

None

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3.c GEN **APPLICABILITY:** DC

REQUEST:

Generic JFD Comment
Section 3.3.1

Comment: The Required Channels for function 11 (RCP Breaker Position) is expressed as 1 per RCP, but in the CTS it is expressed as one per breaker. Is this change in terminology functionally equivalent? Provide a DOC discussion.

FLOG RESPONSE: The identification of the REQUIRED CHANNELS as 1 per RCP is correct and is equivalent to what is installed in the plant. As originally installed, the RCP breaker position trip was installed on the breaker feeding the RCP motor, thus the term 1 per breaker and 1 per RCP are equivalent. As part of the subsequent modification to provide containment penetration protection, a second in-series breaker was installed to protect the containment penetration feeding the RCP motor. There is no reactor trip function associated with this breaker; thus identifying the trip as 1 per RCP is actually more appropriate than what is in the CTS although they are equivalent.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3.d GEN **APPLICABILITY:** DC, CP, WC

REQUEST:

Generic JFD Comment
Section 3.3.1

Comment: The allowable value and trip setpoint of the reactor coolant low flow function (function 10) should be explicitly stated as a percentage of minimum measured flow per loop.

FLOG RESPONSE: ITS Table 3.3.1-1 and 3.3.2-1 have been revised as required to identify the appropriate unit of indication.

ATTACHED PAGES:

Encl. 5A	3.3-21
Encl. 6A	1
Encl. 6B	2

Table 3.3.1-1 (page 3 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
8. Pressurizer Pressure						B-PS DC ALL-005
a. Low	1(g)	4	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[1886]~~ ~~1944.4~~ 1947.5 psig	≥ ~~[1900]~~ 1950 psig ≤ 2385 psig B
b. High	1,2	4	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≤ ~~[2396]~~ ~~2390.0~~ 2387.5 psig	3.3-55 Q 3.3-55 DC ALL-005
9. Pressurizer Water Level – High	1(g)	3	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≤ ~~[93.8]~~ ~~92.5%~~ 90.2 89.8	≤ ~~92%~~ 90 B- DC ALL-005
10. Reactor Coolant Flow – Low	1(g)	3 per loop	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~(89.~~ ~~)%(l)~~ of MMF/loop	≥ ~~[90]%(l)~~ ≥ ~~[90]%~~ Q 3.3-55 B- 3.3-09 3.3-42 Q 3.3d GEN
~~a. Single Loop~~	~~1(h)~~	~~3 per loop~~	~~M~~	~~SR 3.3.1.1~~ ~~SR 3.3.1.7~~ ~~SR 3.3.1.10~~ ~~SR 3.3.1.16~~	~~≥ [89.2] %~~	
~~b. Two Loops~~	~~1(i)~~	~~3 per loop~~	~~M~~	~~SR 3.3.1.1~~ ~~SR 3.3.1.7~~ ~~SR 3.3.1.10~~ ~~SR 3.3.1.16~~	~~≥ [89.2] %~~	~~≥ [90]%~~

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(g) Above the P-7 (Low Power Reactor Trips Block) interlock.

~~(h) Above the P-8 (Power Range Neutron Flux) interlock.~~ 3.3-42

~~(i) Above the P-7 (Low Power Reactor Trips Block) interlock and below the P-8 (Power Range Neutron Flux) interlock.~~ 3.3-42

(l) Minimum measured flow (MMF) is 89,800 gpm per loop for Unit 1 and 90,625 gpm per loop for Unit 2. DC 3-3-Ed 3.3-09

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1431

NUREG-1431 Section 3.3

This Enclosure contains a brief discussion/justification for each marked-up technical change to NUREG-1431, to make them plant-specific or to incorporate generic changes resulting from the Industry/NRC generic change process. The change numbers are referenced directly from the NUREG-1431 mark-ups (Enclosure 5A). For Enclosures 3A, 3B, 4, 6A, and 6B text in brackets "[ ]" indicates the information is plant specific and is not common to all the JLS plants. Empty brackets indicate that other JLS plants may have plant specific information in that location.

consistent with the format approved for Vogtle.

CHANGE NUMBER	JUSTIFICATION
3.3-01	This trip function or design feature is not included in the plant design or it is not credited and has no safety function.
3.3-02	Condition O has been added and (Q 3.3-02) For the Reactor Trip on Turbine Trip function based on turbine stop valve position, 4 of 4 channels are required to close to less than 1% open in order to generate the reactor trip signal. Thus, it is acceptable to have more than one Turbine Stop Valve Closure - reactor trip function channel inoperable and placed in trip per current TS Table 3.3-1, Functional Unit [17.b], ACTION Statement [7]. In addition, the 4 hour bypass note applies only to the [Low Auto Stop Oil Pressure] channels. ITS 3.3.1 Condition P has been revised,
3.3-03	~~This change to ITS 3.3.1 Condition R is consistent with the current licensing basis. A 4-hour AOT for SSPS logic surveillance testing has little usefulness if the RTBs cannot be bypassed for the duration of that testing. RTB surveillance testing retains the current 2-hour AOT.~~ Not Applicable to DCPP. See Conversion Comparison Table (Enclosure 6B). (Q 3.3-03)
3.3-04	Not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparision Table (Enclosure 6B).
3.3-05	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-06	Retains CTS power requirement of 75% RTP in the ITS SR 3.3.1.6 Note concerning when the incore/excore calibration is performed. ~~The ISTS proposal would require unnecessary delays in the post-refuel power ascension. As per the current TS 4.0.4 exception, it is acceptable to go above 75% RTP during power ascension provided the calibration is performed within 24 hours of exceeding 75% RTP. [The Note is further revised to permit achieving equilibrium conditions (per CTS 4.2.2.2.d.1) prior to performing the required surveillance.]~~ Insert 3.3-06 (Q 3.3-06)
3.3-07	Note 3 is added to ITS SR 3.3.1.11 to be consistent with the CTS Table 4.3-1 Note [5]. This ensures that this exception for power and intermediate range detector plateau voltage verification, as discussed in the ITS BASES for SR 3.3.1.11, is included in the Technical Specifications rather than being only found in the BASES. The note replaces the exception to LCO 3.0.4 in the current TS.
3.3-08	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-09	The addition of footnote [(m)] to ITS Table 3.3.1-1 for Function 10 clarifies the low flow setpoint relationship to the quantity identified as Minimum Measured Flow, consistent with the current TS. (Q 3.3 d GEN)

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-07	Note 3 is added to ITS SR 3.3.1.11 to be consistent with the CTS Table 4.3-1 Note [5]. This ensures that this exception, for power and intermediate range detector plateau voltage verification as discussed in the ITS BASES for SR 3.3.1.11, is included in the Technical Specifications rather than being only found in the BASES.	Yes	Yes	Yes	Yes
3.3-08	Deletes the Reviewer's Note in ITS Tables 3.3.1-1 and 3.3.2-1 and adds a Note reflecting the Allowable Value as the LSSS. Trip Setpoints are listed in the Bases.	No, retained CTS format.	Yes	Yes	Yes
3.3-09	The addition of footnote [(m)] to ITS Table 3.3.1-1 for Function 10 clarifies the low flow setpoint relationship to the quantity identified as [Minimum Measured Flow], consistent with the CTS.	Yes	No, not in CTS.	No, not in CTS. 3.3.d GEU	Yes, (CTS per OL Amendment No. 15 dated 4-8-86)
3.3-10	[The Overtemperature ΔT setpoint equation had a bracket in the wrong place and was corrected.] In addition, the f_1 (ΔI) penalty function was corrected and the K_2 inequality sign was changed to an equal sign.	~~Yes~~ No, will retain CTS.	No, see CN 3.3-38.	Yes Q 2-05(2.d) DC ALL-002	Yes, (CTS per OL Amendment No. 102 dated 8-21-95)
3.3-11	Added "or Rod Control System incapable of rod withdrawal," which makes Note (f) the complete antithesis of Note (b).	Yes	No, see CN 3.3-41.	No, see CN 3.3-41.	No, see CN 3.3-41.
3.3-12	Corrects typo in the inequality sign of ITS Table 3.3.2-1 Note (h).	No, see CN 3.3-105.	Yes	Yes	Yes
3.3-13	The equations for Overtemperature ΔT and Overpower ΔT are revised to be consistent with the DCPP CTS. The value of the time constant τ_6 has always been 0 seconds and the factor utilizing the time constant has not been shown as part of the equation in licensing documents since the factor value has been unity. Thus, the factors utilizing the time constant has been deleted.	Yes	No	No	No
3.3-14	Retains the monthly COT for Function 6.h of ITS Table 3.3.2-1, per CTS Table 4.3-2 Functional Unit 6.h. No TADOT is performed.	No, not in CTS.	No, not in CTS.	Yes	Yes

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3.i **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

CTS Markup Section 3.3.1

Comment: Interlock Action [8] requirements to "apply Specification 3.0.3" are deleted in the ITS. Provide a justification for this CTS change.

Based on 8/14/98 meeting this comment will be responded to as part of DOC 1-52 LG comment response

FLOG RESPONSE: As discussed in the Reference 5 meeting minutes, NRC accepted DOC 1-52-LG with no comments. Therefore, this question should be closed as well.

ATTACHED PAGES:

None

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3.j **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

ITS Section 3.3.2, Notes to Required Actions G.1 and H.1.

Comment: The note allowing surveillance testing in Actions G and H allow bypass of a train for any surveillance test. The existing condition [23] only allows bypass of a train specifically for testing per specification 4.3.2.1. This excludes bypass for CTS 4.3.2.2, response time testing. This relaxation is neither noted nor justified in the CTS markup.

FLOG RESPONSE: DOC 1-66-LS45 has been developed to justify the inclusion of response time testing during the bypass of an inoperable or one other channel for CPSES and DCPP.

ATTACHED PAGES:

Encl. 2	3/4 3-5, 3/4 3-6, 3/4 3-7, 3/4 3-21, 3/4 3-22, 3/4 3-22a, 3/4 3-22b
Encl. 3A	14
Encl. 3B	14 of 31
Encl. 4	NSHC Contents and Insert NSHC LS45

TABLE 3.3-1 (Continued)

TABLE NOTATIONS

* When the ~~Reactor Trip System breakers are in the closed position and the~~ Control Rod Drive System is capable of rod withdrawal or ~~all~~ one or more rods are not fully inserted. (TR 3.3-006)	01-55-LS39
~~#The provisions of Specification 3.0.4 are not applicable.~~	01-05-A
##Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.	
###Below the P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.	Q 1-53
~~(new) *** Not required to be performed until 12 hours after input from one Power range Neutron Flux channel to QPTR is inoperable and THERMAL POWER is > 75% RTP.~~	~~01-53-A~~
(new) (f) With the RTB's open or the Rod Control System incapable of withdrawal. In this condition, source range function does not provide reactor trip but does provide indication.	01-47-A
(new) (j) Above the P-9 (Power Range Neutron Flux) Interlock.	01-48-LS4
(new) (k) Including any reactor trip bypass breakers that are racked in and closed for bypassing an RTB.	01-14-A
(new) (d) Above the P-6 (Intermediate Range Neutron Flux) interlock.	01-07-LS3
(new) (g) Above the P-7 (Low Power Reactor Trips Block) interlock.	01-19-LS8

ACTION STATEMENTS

ACTION 1 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement,~~ restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours.	01-04-LG
ACTION 2 - With the number of OPERABLE channels one less than the ~~Total Number of~~ REQUIRED Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:	01-43-A
a. The inoperable channel is placed in the tripped condition within 6 hours.	Q 3.3j 01-66-LSA5
b. ~~The Minimum Channels OPERABLE requirement is met; however,~~ The inoperable channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~ and set point adjustment, and (DC ALL-002)	01-04-LG 01-17-A
c. Either, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER ~~and the Power Range Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER~~ within 4 12 hours; or, if the power range neutron flux input to the QUADRANT POWER TILT RATIO is inoperable, the QPTR is monitored per Specification 4.2.4.2 ~~when THERMAL POWER is greater than or equal to 50% of RATED THERMAL POWER~~. (Q 1-53)	01-18-LS7 ~~01-53-A~~ 01-56-~~A~~ LS47 Q 1-56
(new) Otherwise be in MODE 3 within 12 hours.	01-18-LS7
(new) ACTION 2.1 With one Channel Inoperable, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied (Note: The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels ~~per Specification 4.3.1.1~~ and setpoint adjustment):	01-06-LS2 ~~01-17-A~~ Q 3.3-40
a. Place the inoperable channel in tripped condition within 6 hours, or	
b. Be in MODE 3 within 12 hours.	

Q 3.3j

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 3 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement~~ and with the THERMAL POWER level: 01-04-LG

~~a. Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint, and~~ 01-07-LS3

b. Above the P-6 Setpoint, but below 10% of RATED THERMAL POWER, within 24 hours restore the inoperable channel to OPERABLE status ~~prior to increasing~~ or reduce Thermal Power to less than P-6, or increase THERMAL POWER above 10% of RATED THERMAL POWER. 01-07-LS3

ACTION 3.1 - (new) With two Intermediate Range Neutron Flux Channels inoperable and with the THERMAL POWER level, above the P-6 Setpoint, but below 10% of RATED THERMAL POWER, immediately suspend operations involving positive reactivity additions and, within 2 hours, reduce THERMAL POWER to less than the P-6 Setpoint. 01-07-LS3

ACTION 4 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement~~ immediately suspend all operations involving positive reactivity changes. 01-04-LG 01-08-M

ACTION 4.1 - (new) With no source range neutron flux channels OPERABLE, immediately open the reactor trip breakers. 01-08-M

ACTION 5 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement~~, immediately suspend operations involving positive reactivity additions and verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 ~~or 3.1.1.2, as applicable~~, within 1 hour and at least once per 12 hours thereafter. 01-04-LG 01-09-M

ACTION 6 - With the number of OPERABLE channels one less than the ~~Total Number of~~ REQUIRED Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 01-43-A

a. The inoperable channel is placed in the tripped condition within 6 hours. ~~and~~ or 01-19-LS8

b. Reduce Thermal Power to < P-7 within 12 hours ~~The Minimum Channels OPERABLE requirement is met; however,~~ 01-04-LG

Note: The inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~. 01-66-LS48 Q 3.3J

ACTION 7 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided the inoperable channel(s) is (are) placed in the tripped condition within 6 hours or THERMAL POWER is decreased < P-9 in 10 hours. 01-43-A 01-48-LS4

NOTE: The inoperable low Autostop oil pressure channel may be bypassed for up to 4 hours for surveillance testing of other channels.

ACTION 8 - With less than the ~~Minimum Number of~~ Required Channels OPERABLE, within 1 hour determine ~~by observation of the associated permissive annunciator window(s)~~ that the interlock is in its required state for the existing plant condition, or ~~apply Specification 3.0.3~~ be in at least HOT STANDBY within 7 hours. 01-04-LG 01-52-LG 01-12-M

ACTION 8.1 - (new) With one or more Required Channels inoperable, within 1 hour verify the interlock is in its required state for the existing plant condition, or be in at least MODE 2 within 7 hours. 01-12-M

INSERT ACTION 6.1

INSERT ACTION 7.1

DC 3.3-003

Q 3.3-02

TABLE 3.3-1 (Continued)
ACTION STATEMENTS (Continued)

Remove strikeout

~~ACTION 9 - With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within the next 6 hours.~~ or reduce Thermal Power to < P-7 in 12 hours. Note that the inoperable channel may be bypassed for up to 4 hours for surveillance testing. — 01-49-LS18 / EQ 1-49

ACTION 10 - With the number of ~~channels~~trains OPERABLE one less than the ~~Minimum~~ ~~Total Number of~~ Required Channels ~~OPERABLE requirement~~. restore the inoperable train to operable status within 1 hour, or be in at least HOT STANDBY within ~~6~~ 7 hours; however, one ~~channel~~train may be bypassed for up to 2 hours for maintenance or surveillance testing ~~per Specification 4.3.1.1~~ provided the other channel is OPERABLE. — 01-04-LG / 01-66-LS45 Q 3.3j / 01-13-LS6 / TR 3.3-006

initiate action to fully insert all rods AND

ACTION 11 - With the number of OPERABLE channels or trains one less than the ~~Minimum~~Required Channels or trains ~~OPERABLE requirement~~. restore the inoperable channel or train to OPERABLE status within 48 hours or ~~open the Reactor trip breakers~~ within the next hour ~~fully insert all rods and~~ place the Rod Control System in a condition incapable of rod withdrawal. — 01-04-LG / 01-55-LS39

ACTION 12 - With one of the diverse trip features (Undervoltage or shunt trip attachment) inoperable. restore it to OPERABLE status within 48 hours or ~~declare the breaker inoperable and apply ACTION 10~~ be in at least HOT STANDBY within the next 6 hours. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status. — 01-14-A

ACTION 13 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels. STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: — 01-43-A

DC 3.3 Ed

~~a. The Minimum Channels OPERABLE requirement is met, and~~ — 01-04-LG

a ~~b.~~ The inoperable channel is placed in the tripped conditions within 6 hours: however, the inoperable channel may be bypassed for up to 72 hours for surveillance testing ~~per Specification 4.3.1.1~~ or for performing maintenance, OR — 01-66-LS45 Q 3.3j / 01-67-M Q 3.3-46

c. Be in MODE 3 in 12 hours.

ACTION 26 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~. restore the inoperable Channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~ provided the other channel is OPERABLE. — 01-04-LG / 01-66-LS45 Q 3.3j

ACTION 27 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels. STARTUP and/or POWER OPERATION may proceed provided that within 6 hours. for the affected RCS Loop Delta-T channel(s). either: — 01-43-A

a. The Trip Time Delay threshold power level for zero seconds time delay is adjusted to 0% RTP. or

b. With the number of OPERABLE channels one less than the ~~Total Number of~~Required Channels. the affected Steam Generator Water Level-Low-Low channels are placed in the tripped condition. — 01-43-A

Remove Strike Out

~~ACTION 28 - With the number of OPERABLE channels one less than the Total Number of Channels. STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:~~ — ~~01-50-A~~ / 01-19-LS8

~~a. The inoperable channel is placed in the trip condition within 6 hours, and~~

~~b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1.~~, or

c. Reduce Thermal Power to < P-7 within 12 hours.

DC 3.3-003

TABLE NOTATIONS

02-22-A

Q 3.3-63

\# Trip function may be blocked in this MODE below the P11 (Pressurizer Pressure Interlock) Setpoint.

\## Trip function ~~automatically~~ blocked above P-11 (Pressurizer Pressure Interlock) Setpoint and is ~~automatically~~ blocked below P-11 when Safety Injection on Steam Line Pressure-Low is not blocked. 02-50-LG Q 3.3-63

\### For Mode 3, the Trip Time Delay associated with the Steam Generator Water Level-Low-Low channel must be less than or equal to 464.1 seconds. 02-36-LS49

(new) ** When associated DG is required to be OPERABLE by LCO 3.8.1.2, "AC Sources-Shutdown." Q 2-36

(new) (a) Not applicable when all MSIVs are closed and deactivated. 02-07-LS11

(new) (b) Not applicable when all MFIVs, main feedwater regulating valves, and main feedwater regulating bypass valves are closed and deactivated or isolated by a closed manual isolation valve. 02-07-LS11

ACTION STATEMENTS

ACTION 14 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~, provided the other channel is OPERABLE. 01-04-LG 01-66-LS45 Q 3.3j

~~OPERABLE requirement~~ ~~Minimum~~ DC 3.3-001 ~~02-48-LS28~~

ACTION 15 - With the number of OPERABLE Channels less than the Required Channels, declare the affected emergency Diesel Generator(s) inoperable and comply with the ACTION statements of Specification 3.8.1.1; however, one channel may be bypassed for up to 2 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-43-A Q 3.3j 02-11-A DC 3.3-E0

ACTION 16 - With the number of OPERABLE Channels one less than the ~~Total Number of~~ Required Channels, declare the affected Emergency Diesel Generator(s) inoperable and comply with the ACTION statements of Specification 3.8.1.1; however, one channel may be bypassed for up to 2 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-43-A 02-11-A 01-66-LS45 Q 3.3j

ACTION 17 - With ~~the number of OPERABLE channels one less than the Total Number of Channels~~ one containment pressure channel inoperable, operation may proceed provided the inoperable channel is placed in the bypassed condition ~~and the Minimum Channels OPERABLE requirement is met~~ within 6 hours, or be in MODE 3 in 12 hours and in MODE 5 in 42 hours. 01-43-A 02-15-M 01-04-LG

Note, one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-66-LS45 Q 3.3j

ACTION 17.1 - With one containment pressure channel inoperable, operation may (new) proceed provided the inoperable channel is placed in the bypassed condition within 6 hours, or be in MODE 3 in 12 hours and in MODE 4 in 18 hours. Note, one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 02-15-M Q 3.3j

ACTION 18 - With less than the ~~Minimum~~ Required Channels OPERABLE ~~requirement~~, comply with ACTION 37, and operation may continue beyond the 4 hour period provided the containment purge supply and exhaust valves ~~(RCV 11, 12, FCV 660, 661, 662, 663, 664)~~ are maintained closed. 01-04-LG 02-05-M 02-39-LG 03-14-LS29

ACTION 21 - With the number of OPERABLE channels less than the ~~Minimum Number of~~ Required Channels OPERABLE, within 1 hour determine ~~by observation of the associated permissive annunciator window(s)~~ that the interlock is in its required state for the existing plant condition, or ~~apply Specification 3.0.3~~ be in MODE 3 in 7 hours and MODE 4 in 13 hours. 01-04-LG 02-14-M 01-52-LG

ACTION 22 - With the number of OPERABLE Channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~ provided the other channel is OPERABLE. 01-04-LG 01-66-LS95 Q3.3j

ACTION 23 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours. 01-43-A

ACTION 24 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated pump or valve inoperable and take the ACTION required by Specification 3.7.1.5 or 3.7.1.2 as applicable. 01-43-A

ACTION 25 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~ provided the other channel is OPERABLE. 01-04-LG 01-66-LS95 Q3.3j

ACTION 29 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected RCS Loop Delta-T channel(s), either: 01-43-A

a. The Trip Time Delay threshold power level for zero seconds time delay is adjusted to 0% RTP, or

DC ALL-002

Delete Bold & Strike out

b. With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, the affected Steam Generator Water Level-Low-Low channels are placed in the tripped condition, OR 01-43-A 01-67-M Q 3.3-46

c. Be in MODE 3 in 12 hours AND MODE 4 in 18 hours

ACTION 35 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 01-43-A

a. The inoperable channel is placed in the trip condition within 6 hours, ~~and~~ or be in MODE 2 in 12 hours. Q 2-08 02-08-M 02-56-LS48

b. ~~The Minimum Channels OPERABLE requirement is met; however~~, The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels ~~per Specification 4.3.2.1~~. 01-04-LG 01-66-LS45 Q3.3j

ACTION 35.2 - With the number of OPERABLE channels one less than the Required Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 02-08-M

ACTION 19 - With ~~the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement~~ one channel inoperable, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 01-04-LG

ACTION 20 - With ~~the number of OPERABLE channels one less than the Total Number of Channels~~ one channel inoperable, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 02-08-M 01-43-A

a. The inoperable channel is placed in the tripped condition within 6 hours, ~~and~~ or

b. Be in MODE 3 in 12 hours and in MODE 4 in 18 hours. NOTE: The ~~Minimum Channels OPERABLE requirement is met; however, the~~ inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-04-LG 01-66-LS45 Q 3.3j

~~ACTION 20.1- With one channel inoperable, STARTUP and/or POWER OPERATION may proceed (new) provided the following conditions are satisfied:~~ 02-29-M DC ALL-002

~~a. The inoperable channel is placed in the bypassed condition within 6 hours, and the inoperable channel is returned to an OPERABLE status within 72 hours, or~~

~~b. Immediately enter 3.0.3.~~

~~NOTE: One additional channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1.~~

ACTION 20.2 - With one channel inoperable, STARTUP and/or POWER OPERATION may (new) proceed provided the following conditions are satisfied: 02-08-M

a. The inoperable channel is placed in the tripped condition within 6 hours, or

b. Be in MODE 3 in 12 hours and in MODE 5 in 42 hours. NOTE: The inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. Q 3.3j

ACTION 36 - With the number of OPERABLE channels one less than the Required Channels, within 6 hours place the inoperable channel in cut-out and restore the inoperable channel to OPERABLE Status within 72 hours; or be in at least HOT STANDBY within the next 6 hours and be in COLD SHUTDOWN within the next 30 hours. DC ALL-002 DC 3.3-Ed

48

Q 3.3-29

a. The inoperable channel is placed in the trip condition within 6 hours, or

b. Be in MODE 2 in 6 hours for Function 6.g, or be in MODE 3 in 12 hours for Function 5.b.

NOTE: The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels ~~per Specification 4.3.2.1~~.

Q3.3j

3/4 22 b

CHANGE NUMBER	NSHC	DESCRIPTION
01-57	LG	CTS Table 3.3-1 Functional Units [12.a and 12.b] are combined per Traveler TSTF-169. The Required Channels, ACTION Statement, and Surveillance Requirements are the same for both Functional Units. The only difference between the two is the APPLICABILITY which could lead to entry into ACTION Statement 6 for Functional Unit [12.a], followed by a power reduction below P-8 exiting the APPLICABILITY and required ACTIONs for that Functional Unit, and subsequent re-entry into ACTION Statement 6 for Functional Unit [12.b]. This would involve an improper cumulative AOT of 12 hours before tripping an inoperable channel, beyond that evaluated in WCAP-10271 and its Supplements. The relationships between these Functional Units and permissives P-7 and P-8 are moved to the ITS 3.3.1 Bases.
01-58	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-59	LS46	~~Not Used.~~ INSERT 1-59-LS59 Q 1-51
01-60		Not Used.
01-61	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-01	A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.
02-02	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-04	LG	The requirements stipulated in ACTIONS a and b are moved to ITS Table 3.3.2-1, with explicit direction contained in the ITS ACTIONS Bases.
02-05	M	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 2-05 Q 2-05 (3.3)
02-06	LS33	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-62	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-65	A	

INSERT 1-63-A

INSERT 1-64-A

INSERT 1-66-LS45

INSERT 1-67-M

INSERT 1-68-LS54

INSERT 1-69-M

Q 1-AGED

Q 1-23

Q 3.3 J

Q 3.3-46

DC 3.3-004

DC 3.3-004

Insert for Q 3.3j

Enclosure 3A page 14
Insert 1-66-LS45

The CTS allows certain inoperable channels, or for some plants one other channel, to be bypassed for testing per Specification 4.3.1.1 or 4.3.2.1. The intent of the bypass is to allow testing that will verify that the channel has been restored to an OPERABLE condition and can be returned to service. The allowed bypass time for testing has been evaluated for its impact on the safety analyses. It has been determined that the impact of the allowed bypasses is minimal. Whether the bypass is for setpoint verification or response time verification has no impact on the safety analysis. This change would delete the reference to Specification 4.3.1.1 and 4.3.2.1 in the allowed bypass notes contained in certain CTS ACTION statements, thus permitting any testing needed for restoration of the inoperable function.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-58 A	The proposed change would allow Reactor Trip System and ESFAS sensor response time testing to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements," or other similar methodologies. This change is consistent with traveler TSTF-111, which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing.	No, see CN 1-03-LS1.	Yes	No, see CN 1-03-LS1.	No, see CN 1-03-LS1.
01-59	~~Not Used.~~ INSERT 1-59-LS46(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 1-51
01-60	Not Used.	N/A	N/A	N/A	N/A
01-61 M	If the requirements of current CPSES ACTION Statement 6 are not met, LCO 3.0.3 would be entered. In accordance with the ISTS, this ACTION Statement is revised to state that, if the ACTION requirements are not met, the plant must be taken below the P-7 interlock setpoint within the next 6 hours.	No, see CN-01-19-LS8.	Yes	No, see CN-01-19-LS8.	No, see CN-01-19-LS8.
02-01 A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.	Yes	Yes	Yes	Yes
02-02 A	CTS ACTION b.1, Equation 2.2-1, and the values for Total Allowance (TA), Z, and Sensor Error (S) are deleted, consistent with NUREG-1431 Rev. 1.	No, not in CTS.	No, not in CTS.	Yes	Yes
02-03 LG	The Engineered Safety Features Actuation System Instrumentation Trip Setpoints are moved to a licensee controlled document.	No, retained in ITS.	Yes, moved to Bases.	Yes, moved to ITS 3.3.2 Bases.	Yes, moved to ITS 3.3.2 Bases.

INSERT 1-63-A(a)
INSERT 1-64-A(a)
INSERT 1-66-LS45(a)
INSERT 1-67-M(a)

Q 1-AGEN
Q 1-23
Q 3.3j
Q 3.3-46
DC 3.3-004
DC 3.3-004

INSERT 1-68-LS54(a)
INSERT 1-69-M(a)

[illegible]

Insert for Q 3.3j

Enclosure 3B page 14 of 31
Insert 1-66-LS45

01-66 LS45	This change would delete the reference to Specification 4.3.1.1 and 4.3.2.1 in the allowed bypass notes contained in certain CTS ACTION statements, thus permitting any testing needed for restoration of the inoperable function.	Yes	Yes	Yes	Yes

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

V. Recurring No Significant Hazards Considerations - "TR"

Insert for Q 3.3j

Enclosure 4
Insert NSHC LS45

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS45
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

This proposed change would delete the reference to Specification 4.3.1.1 and 4.3.2.1 in the allowed bypass notes contained in certain CTS ACTION statements, thus permitting any testing needed for restoration of the inoperable channel. The CTS allows certain inoperable channels, or for some plants one other channel, to be bypassed for testing per Specification 4.3.1.1 or 4.3.2.1. The intent of the bypass is to allow testing that will verify that the channel has been restored to an OPERABLE condition and can be returned to service. The allowed bypass time for testing has been evaluated for its impact on the safety analyses. It has been determined that the impact of the allowed bypasses is minimal. Whether the bypass is for setpoint verification or response time verification has no impact on the safety analysis.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> *1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> *2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> *3. Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change allows surveillance testing as required to return a function to an OPERABLE condition. The proposed change in the allowed testing will not affect any of the analysis assumptions for any of the accidents previously evaluated. The proposed change will

[illegible]

[illegible]

not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be neither degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change in the surveillance requirements will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS45" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3.k **APPLICABILITY:** DC

REQUEST:

ITS Section 3.3.2, Required Action I.2.2

Comment: A separate condition should be created to handle shutdown tracks for functions with required applicability that is Modes 1 & 2.

FLOG RESPONSE: Refer to Comment number Q 3.3-127.

ATTACHED PAGES:

None

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3.I **APPLICABILITY:** DC

REQUEST:

ITS Section 3.3.6 SR 3.3.6.7 and SR 3.3.6.8

Comment: SR 3.3.6.7 does not include the new note 6 from the CTS markup. This note requires verification of time constants as part of the channel calibration.

The frequency for SR 3.3.6.8 does not reflect the revised frequency given in the CTS markup.

FLOG RESPONSE: The CTS Table 4.3-2 for Functional Unit 3.c.4) was previously marked as requiring verification of time constants, however, there are no time constants associated with the Containment Ventilation Exhaust Isolation as initiated by Containment Ventilation Exhaust Radiation-High. The CTS Table 4.3-2 has been corrected and as a result ITS SR does not require the subject note.

In addition, the frequency for ITS SR 3.3.6.8 has been revised to 24 months on a STAGGERED TEST BASIS to be consistent with the CTS (see DC ALL-005).

ATTACHED PAGES:

Encl. 2	3/4 3-33
Encl. 5A	3.3-67

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~
3. Containment Isolation				DC ALL-001				Q1-23
a. Phase "A" Isolation								
1) Manual	N.A.	N.A.	N.A.	R 24 (9)	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							Q1-23
b. Phase "B" Isolation				DC ALL-001				
1) Manual	N.A.	N.A.	N.A.	R 24 (9)	~~N.A.~~	N.A.	N.A.	~~1, 2, 3, 4~~
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
		24						DC ALL-005
3) Containment Pressure-High-High	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~ 01-23-A
c. Containment Ventilation Isolation								02-~~20-A~~ 054 2 Q 2-05 (3.3)
1) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
2) Deleted								
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
4) Containment Ventilation Exhaust Radiation-High ~~(RM-44A and 44B)~~	S	24 R(6)	Q(2)	N.A.	N.A.	N.A.	N.A.	DC ALL-005 ~~1, 2, 3, 4~~

Q 3.3-79 Q 3.3 2 02-51LG

01-23-A

02-35-A

SURVEILLANCE REQUIREMENTS

other than ESFAS CVI RESPONSE TIME verification,

---NOTE---
Refer to Table 3.3.6-1 to determine which SRs apply for each Containment Ventilation ~~Purge and~~ Exhaust Isolation Function. PS DC 3.3-Ed

2. ESFAS CVI RESPONSE TIME verification is specified in SR 3.3.6.8. Q 3.3-55

SURVEILLANCE		FREQUENCY
SR 3.3.6.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.6.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.6.3	Perform MASTER RELAY TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.6.4	Perform ~~COT~~ CFT.	3.3-75 92 days
SR 3.3.6.5	Perform SLAVE RELAY TEST.	~~[92] days~~ 18 24 months B-PS DC ALL-005
SR 3.3.6.6	NOT USED ---NOTE--- ~~Verification of setpoint is not required.~~ ~~Perform TADOT.~~	3.3-76 ~~[18] months~~
SR 3.3.6.7	Perform CHANNEL CALIBRATION.	24 18 months DC-ALL-005 DC 3.3-Ed B PS
SR 3.3.6.8	Verify ESF Containment Ventilation ~~Purge and~~ Exhaust Isolation ~~response time is~~ RESPONSE TIME is within limits as specified in the FSAR update.	24 18 months on a STAGGERED TEST BASIS DC ALL-005 3.3-31 3.3-55 Q 3.3-55

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-02 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

It is acceptable to have more than one Turbine Stop Valve Closure - reactor trip function channels inoperable and placed in trip per current TS Table 3.3-1, Functional Unit [16.b], ACTION Statement [10]. In addition, the 4 hour bypass note applies only to the [Low Fluid Oil Pressure] channels. ITS 3.3.1 Condition P has been revised.

Comment: CTS actions for turbine trip on oil pressure and valve closure require a separate ITS Conditions based on the different CTS allowances for tripping and testing channels in each of these functions. Provide a revised ITS with justifications that use ITS Action P for oil pressure channels and a separate valve closure ITS Action that is equivalent to Action P without the Note to Action P.1.

Based on 8/14/98 meeting this comment will be responded to as part of DOC 1-11 LS 5 comment response. Use Vogtle actions for models. {DC} Use 1-48 LS4 to adopt split actions, for the others the change is CTS.

FLOG RESPONSE: Based on the Reference 5 meeting minutes, the response to this question will be tracked under this Comment Number Q 3.3-02. The response to Comment Number Q 1-11-LS-5 will direct the reviewer here.

The FLOG will adopt Conditions O and P approved for Vogtle, as indicated in the attached pages. DOCs 1-11-LS-5,1-15-A, 1-48-LS-4; NSHCs LS-4, LS-5; and JFD 3.3-02 have been revised, as applicable.

ATTACHED PAGES:

Encl. 2	3/4 3-3 and 3/4 3-6
Encl. 3A	12
Encl. 3B	12
Encl. 4	23 and 24
Encl. 5A	3.3-8, 3.3-9, and 3.3-24
Encl. 5B	B 3.3-49 and B 3.3-50
Encl. 6A	1
Encl. 6B	1

TABLE [illegible] (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

DC ALL-002

FUNCTIONAL UNIT	~~TOTAL NO.~~ OF CHANNELS	REQUIRED ~~TO TRIP~~	~~MINIMUM CHANNELS OPERABLE~~	~~CHANNELS~~ MODES	APPLICABLE ACTION	
						01-04-LG
						01-43-A
12. Reactor Coolant Flow-Low	3/loop			1(9)	6	01-19-LS8
~~a. Single Loop (Above P-8)~~	~~3/loop~~	~~2/loop in one loop~~	~~2/loop in each loop~~	~~1~~	~~6~~	01-57-LG
~~b. Two Loops (Above P-7 and below P-8)~~	~~3/loop~~	~~2/loop in two loops~~	~~2/loop in each loop~~	~~1~~	~~6~~	
13. Steam Generator Water Level Low-Low						
a. Steam Generator Water Level-Low-Low	3/S.G.	~~2/S.G. in one S.G.~~	~~2/S.G. in each S.G.~~	1, 2	6 ~~27~~ 6.1 DC 3.3-003	01-45-M
b. RCS Loop ΔT	4 (1/loop)	~~N.A.~~	~~N.A.~~	1, 2	27	DC ALL-002
14. DELETED						
15. Undervoltage-Reactor Coolant Pumps	2/bus	~~1/bus both busses~~	~~1/bus~~	1(9)	~~28~~ 6 DC 3.3-003	01-19-LS8 ~~01-60-A~~
16. Underfrequency-Reactor Coolant Pumps	3/bus	~~2 on same bus~~	~~2/bus~~	1(9)	~~28~~ 6	01-19-LS8 ~~01-50-A~~
17. Turbine Trip						
a. Low Autostop Oil Pressure	3	2	2	1(11)	7	01-48-LS4
b. Turbine Stop Valve Closure	4	4	4	1(11)	~~7~~ 7.1 Q 3.3-02	01-48-LS4

delete strike out

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 3 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement~~ and with the THERMAL POWER level: 01-04-LG

~~a. Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint, and~~ 01-07-LS3

b. Above the P-6 Setpoint, but below 10% of RATED THERMAL POWER, within 24 hours restore the inoperable channel to OPERABLE status ~~prior to increasing~~ or reduce Thermal Power to less than P-6, or increase THERMAL POWER above 10% of RATED THERMAL POWER. 01-07-LS3

ACTION 3.1 - (new) With two Intermediate Range Neutron Flux Channels inoperable and with the THERMAL POWER level: above the P-6 Setpoint, but below 10% of RATED THERMAL POWER, immediately suspend operations involving positive reactivity additions and, within 2 hours, reduce THERMAL POWER to less than the P-6 Setpoint. 01-07-LS3

ACTION 4 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement~~ immediately suspend all operations involving positive reactivity changes. 01-04-LG 01-08-M

ACTION 4.1 - (new) With no source range neutron flux channels OPERABLE immediately open the reactor trip breakers. 01-08-M

ACTION 5 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement~~, immediately suspend operations involving positive reactivity additions and verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 ~~or 3.1.1.2, as applicable~~, within 1 hour and at least once per 12 hours thereafter. 01-04-LG 01-09-M

ACTION 6 - With the number of OPERABLE channels one less than the ~~Total Number of~~ REQUIRED Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 01-43-A

a. The inoperable channel is placed in the tripped condition within 6 hours, ~~and~~ or 01-19-LS8

b. Reduce Thermal Power to < P-7 within 12 hours ~~The Minimum Channels OPERABLE requirement is met; however,~~ 01-04-LG

Note: The inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~. 01-66-LS25 Q 3.3j

ACTION 7 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided the inoperable channel(s) is (are) placed in the tripped condition within 6 hours or THERMAL POWER is decreased < P-9 in 10 hours. 01-43-A 01-48-LS4

NOTE: The inoperable low Autostop oil pressure channel may be bypassed for up to 4 hours for surveillance testing of other channels.

ACTION 8 - With less than the ~~Minimum Number of~~ Required Channels OPERABLE, within 1 hour determine ~~by observation of the associated permissive annunciator window(s)~~ that the interlock is in its required state for the existing plant condition, or ~~apply Specification 3.0.3~~ be in at least HOT STANDBY within 7 hours. 01-04-LG 01-52-LG 01-12-M

ACTION 8.1 - (new) With one or more Required Channels inoperable, within 1 hour verify the interlock is in its required state for the existing plant condition, or be in at least MODE 2 within 7 hours. 01-12-M

INSERT ACTION 6.1

INSERT ACTION 7.1

DC 3.3-003

Q 3.3-02

Insert for Q 3.3-02

Enclosure 2 page 3/4 3-6
Insert ACTION 7.1

With the number of OPERABLE channels less than the Required Channels, operation may continue provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours, or
b. Reduce THERMAL POWER to less than P-9 within 10 hours.

CHANGE NUMBER	NSHC	DESCRIPTION
01-43	A	The "Total Number of Channels" columns in CTS Tables 3.3-1 and [3.3-3] and the ["Minimum Channels OPERABLE"] column in CTS Table [3.3-6] and the reference to them in the ACTIONS are relabeled as the "Required Channels" consistent with NUREG-1431. ACTION Statements are revised to use the ITS terminology, "Required Channels". Changing the column titles is purely administrative. The numbers in the columns are adjusted, if necessary. Where the numbers are adjusted, those changes are described in different CNs.
01-44	A	DC ALL-002 The "MODES For Which Surveillance Is Required" columns in CTS Tables 4.3-1 and 4.3-2 [] and 4.3-3 are deleted since this information is enveloped by CTS Tables 3.3-1 and [3.3-3] and 3.3-6 and is redundant given the integrated OPERABILITY/ SR format in improved TS Tables 3.3.1-1 and 3.3.2-1.
01-45	M	The Overtemperature [ΔT], Overpower [ΔT], Pressurizer Pressure - High, and Steam Generator Water Level - Low-Low trip functions, which currently reference ACTION Statement [6], are now referenced to new ACTION Statement ~~[2.1]~~ 6.1, consistent with ITS 3.3.1 Condition E. This change is more restrictive since one less hour is available under new ACTION Statement ~~[2.1]~~ than under the combination of current ACTION Statement [6] and LCO 3.0.3. Q 1-45-M DC 3.3-003
01-46	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-47	A	A new note (f) is added and applied to the Functional Unit 6.c. The note is for clarification only as the CTS Table 3.3-1 indicates that only 1 channel is required to be OPERABLE and that there is no trip function under these conditions.
01-48	LS4	INSERT 01-48-LS4 ~~CTS ACTION 7 is revised to allow a reduction in power below P-9 in lieu of tripping the inoperable channel. The ACTION is also revised to allow bypassing a tripped channel for four hours for surveillance testing other channels.~~ Q 3.3-02 Note (j) is added to Table 3.3-1, Applicable Modes for Functional Unit 17.a and b that states that the requirements are only applicable above P-9.
01-49	LS18	CTS ACTION 9 is ~~deleted and~~ revised ~~ACTION 6 is used~~ to ~~which~~ allows a power reduction below P-7 in lieu of tripping the inoperable channel. Note (g) is added that specifies that Functional Unit 19 of the CTS does not have to be applied until the power level associated with P-7 is reached. The revised ACTION ~~6~~ 9 also allows the tripped channel to be bypassed for up to 4 hours to perform surveillance testing on other channels per WCAP 10271 and NUREG-1431. Q 1-49-LS18 DC 3.3-003

Insert for Q 3.3-02

Enclosure 3A page 12
Insert 01-48-LS4

CTS ACTION 7 is retained as applicable to Functional Unit 17.a., and new ACTION 7.1 is applied to Functional Unit 17.b. so that the ITS note allowing bypass of a tripped channel will only be shown as applicable to Functional Unit 17.a. CTS ACTION 7 is revised and new ACTION 7.1 allows a reduction in power below P-9 in lieu of tripping the inoperable channel. ACTION 7 is also revised to allow bypassing a tripped channel for up to four hours for surveillance testing of other channels as justified by WCAP-10271 and NUREG-1431.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-47 A	For DCPP, a new note (f) is added and applied to the Functional Unit 6.c. The note is for clarification only as the CTS Table 3.3-1 indicates that only 1 channel is required to be OPERABLE and that there is no trip function under these conditions.	Yes	No	No	No
01-48 LS4	~~For DCPP, CTS ACTION 7 is revised to allow a reduction in power below P-9 in lieu of tripping the inoperable channel. The action is also revised to allow bypassing a tripped channel for four hours for surveillance testing other channels.~~ Note (j) is added to Table 3.3-1, Applicable Modes for Functional Unit 17.a and b that states that the requirements are only applicable above P-9.	Yes INSERT 01-48-LS4a	No	No	No Q 3.3-02
01-49 LS18	For DCPP, CTS ACTION 9 is ~~deleted and~~ revised to ~~ACTION 6 is used which~~ allows a power reduction below P-7 in lieu of tripping the inoperable channel. Note (g) is added that specifies that Functional Unit 19 of the CTS does not have to be applied until the power level associated with P-7 is reached. The revised ACTION 9 ~~6~~ also allows the tripped channel to be bypassed for up to 4 hours to perform surveillance testing on other channels.	Yes	No	No	No Q 1-49
01-50 A	ACTION [28] of the CTS duplicates CTS ACTION [6] and is deleted.	~~Yes~~ No	Yes	No, not in CTS.	No, not in current TS. Q 1-50
01-51 LG	This change moves the description of the P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [22.e and 22.f] and lists "1 per train" under the Required Channels column. ~~[This change also deletes the surveillance requirements for P-7 per GN 3.3-54 in the ITS since the COTs and channel calibration apply to P-10 and P-13 not to P-7 logic function.]~~	Yes	Yes	Yes	Yes Q 1-51

[illegible]

[illegible]

Insert for Q 3.3-02

Enclosure 3B page 12
Insert 01-48-LS4a

For DCPP, CTS ACTION 7 is retained as applicable to Functional Unit 17.a., and new ACTION 7.1 is applied to Functional Unit 17.b. so that the ITS note allowing bypass of a tripped channel will only be shown as applicable to Functional Unit 17.a. CTS ACTION 7 is revised and new ACTION 7.1 allows a reduction in power below P-9 in lieu of tripping the inoperable channel. ACTION 7 is also revised to allow bypassing a tripped channel for up to four hours for surveillance testing of other channels.

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

Q 3.3-02

NSHC LS4
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

7

apply only to Function Unit 17a. and to

The APPLICABILITY for the Reactor Trip on Turbine Trip function is modified such that this function is only required to be OPERABLE above the P-9 interlock setpoint (15% RTP). This is acceptable since the trip function is blocked below P-9. CTS ACTION Statement 7 is revised accordingly and new note (j) is applied to Functional Units 17.a. and b. for the trip functions associated with Low Autostop Oil Pressure and Turbine Stop Valve Closure. The ACTION is also revised to allow bypassing a tripped Low Autostop Oil Pressure channel for up to four hours for surveillance testing other channels. INSERT LS4(a)

Current ACTION Statement 7 allows continued operation with one inoperable channel as long as it is placed in trip within 6 hours. There is no associated action if an inoperable channel is not placed in trip within 6 hours nor is there an action for multiple inoperable channels; therefore, LCO 3.0.3 would be invoked. Revised ACTION Statement 7 allows continued operation with one or more inoperable channels as long as they are placed in trip within 6 hours or ~~THERMAL POWER is reduced below P-9 within~~ 10 hours, thus LCO 3.0.3 would no longer be applicable. New ACTION 7.1 is similarly worded

& and new ACTION 7.1 are

Revised ACTION Statement 7 ~~is~~ consistent with the ITS philosophy of reducing power to enter a condition where a function is not required to be OPERABLE. This is less restrictive than the CTS which would require entry into LCO 3.0.3. Entry into LCO 3.0.3 is overly conservative in the above situations since this trip function provides an anticipatory reactor trip function only above P-9.

A note is added per NUREG-1431 to allow the Low Auto Stop Oil Pressure trip to be bypassed for up to four hours. There is no need for the 4 hour bypass allowance for surveillance testing of the Turbine Stop Valve Closure, since all 4 channels are required to trip the turbine; however, the bypass allowance is desirable when 2 channels satisfy the trip logic to reduce the possibility of a spurious trip during testing. ~~Bypassing one channel for testing changes the trip coincidence to a two out of two thus maintaining its operability with only a slight reduction in reliability. In addition, the potential for a turbine trip during the bypass period for other than a Low Autostop Oil Pressure trip is small. The reduction in reliability is acceptable since the potential for a transient due to a reactor trip is reduced by allowing the bypass.~~

INSERT LS 4 (b)

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:

1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*

2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*

3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

Insert for Q 3.3-02

Enclosure 4 page 23
Insert NSHC LS4

Insert LS4 (a)

ACTION 7.1 is created which applies only to Functional Unit also only requires the unit to be brought down to less than P-9 in lieu of the CTS requirement to apply LCO 3.0.3.

Insert LS4 (b)

Bypassing one channel for testing changes the trip coincidence from two-out-of-three to two-out-of-two, thus maintaining the trip function, but with reduced reliability for the duration of the bypass. This reduced reliability has been reviewed via WCAP-10271 and found acceptable. WCAP-10271 was approved for use by DCPP in License Amendment 61/60.

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS4
(continued)

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the ACTIONS associated with inoperable channel(s) in the Reactor Trip on Turbine Trip function by keeping the end point of the shutdown action above the CTS requirement if inoperable channel(s) are not placed in trip within 6 hours or if multiple Low Autostop Oil Pressure channels are inoperable. The new ACTION Statement would reduce power to less than P-9 (50% RTP) in these situations as compared to entry into LCO 3.0.3 (power $\leq$ 5% RTP) in the current TS. The proposed change in the ACTION statements will not affect any of the analysis assumptions for any of the accidents previously evaluated. This trip function is anticipatory only and is not credited in any FSAR Chapter 15 accident analyses. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change in ACTIONS will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS4" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, an NSHC finding is justified.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
N. NOT USED ~~One Reactor Coolant Flow — Low (Single Loop) channel inoperable.~~	~~NOTE~~ ~~The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels.~~	3.3-42
	~~N.1 Place channel in trip.~~	~~6 hours~~
	~~OR~~	
	~~N.2 Reduce THERMAL POWER to < P-8.~~	~~10 hours~~
O. ~~NOT USED~~ e ~~One Reactor Coolant Pump Breaker Position channel inoperable.~~ INSERT ACTION O	~~NOTE~~ ~~The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels.~~	Q 3.3-02 3.3-02 3.3-103
	~~O.1 Restore channel to OPERABLE status.~~	~~6 hours~~
	~~OR~~	
	~~O.2 Reduce THERMAL POWER to < P-8.~~	~~10 hours~~

(continued)

Insert for Q 3.3-02

Enclosure 5A page 3.3-8
Insert ACTION O

O. One Low Auto-Stop Oil Pressure Turbine Trip channel inoperable.	---------------NOTE---------------- An inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. -----------------------------------		
	O.1	Place channel in trip.	6 hours
	<u>OR</u>		
	O.2	Reduce THERMAL POWER to < P-9.	10 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
P. One or more Turbine Trip channel(s) inoperable. Turbine Stop Valve Closure,	~~NOTE~~ ~~The inoperable low auto stop oil pressure channel may be bypassed for up to 4 hours for surveillance testing of other channels.~~	3.3-02 Q 3.3-02
	P.1 Place channel(s) in trip.	6 hours
	OR	B
	P.2 Reduce THERMAL POWER to < P-9.	10 hours
Q. One train inoperable.	-NOTE- One train may be bypassed for up to 4 hours for surveillance testing provided the other train is OPERABLE.	B
	Q.1 Restore train to OPERABLE status.	6 hours
	OR	
	Q.2 Be in MODE 3.	12 hours

(continued)

Table 3.3.1-1 (page ~~5~~6 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT ~~(a)~~
16. Turbine Trip					3.3-02	B-PS
a. Low ~~Fluid~~ Auto-Stop Oil Pressure	$1^{(j)}$	3	~~P~~ O	SR 3.3.1.10 SR 3.3.1.15	≥ ~~[750]~~ 45 46.5 psig DC 3.3-003	Q 3.3-02 ≥ ~~[800]~~ 50 psig ≥ 1% open B
b. Turbine Stop Valve Closure	$1^{(j)}$	4	P	SR 3.3.1.10 SR 3.3.1.15	≥ 1% open	
17. Safety Injection (SI) Input from Engineered Safety Feature Actuation System (ESFAS)	1.2	2 trains	Q	SR 3.3.1.14	NA	NA

BASES

ACTIONS

M.1 and M.2 (continued)

OPERABLE channel, and the low probability of occurrence of an event during this period that may require the protection afforded by the Functions associated with Condition M.

Q 3.3-37

The Required Actions have been (or one additional channel for FUNCTIONS 8a, 9 and 10) modified by a Note that allows placing the inoperable channel in the bypassed condition for up to 4 hours while performing routine surveillance testing of the other channels. The 4 hour time limit is justified in Reference 7.

DC AL-002

The Note allows only the inoperable channel for FUNCTIONS 11, 12 and 13 to be bypassed for surveillance testing of other channels.

N.1 and N.2

NOT USED

~~Condition N applies to the Reactor Coolant Flow Low (Single Loop) reactor trip Function. With one channel inoperable, the inoperable channel must be placed in trip within 6 hours. If the channel cannot be restored to OPERABLE status or the channel placed in trip within the 6 hours, then THERMAL POWER must be reduced below the P-8 setpoint within the next 4 hours. This places the unit in a MODE where the LCO is no longer applicable. This trip Function does not have to be OPERABLE below the P-8 setpoint because other RTS trip Functions provide core protection below the P-8 setpoint. The 6 hours allowed to restore the channel to OPERABLE status or place in trip and the 4 additional hours allowed to reduce THERMAL POWER to below the P-8 setpoint are justified in Reference 7.~~

~~The Required Actions have been modified by a Note that allows placing the inoperable channel in the bypassed condition for up to 4 hours while performing routine surveillance testing of the other channels. The 4 hour time limit is justified in Reference 7.~~

O.1 and O.2

~~NOT USED~~

~~Condition O applies to the RCP Breaker Position (Single Loop) reactor trip Function. There is one breaker position device per RCP breaker. With one channel inoperable, the inoperable channel must be restored to OPERABLE status within 6 hours. If the channel cannot be restored to OPERABLE status within the 6 hours, then THERMAL POWER must be reduced below the P-8 setpoint within the next 4 hours.~~

INSERT ACTION O Bases

Q 3.3-02

(continued)

Insert for Q 3.3-02

Enclosure 5B page B 3.3-49
Insert ACTION O Bases

Condition O applies to Turbine Trip on Low Auto-Stop Oil Pressure. With one channel inoperable, the inoperable channel must be placed in the trip condition within 6 hours. If placed in the tripped condition, this results in a partial trip condition requiring only one additional channel to initiate a reactor trip. If the channel cannot be restored to OPERABLE status or placed in the trip condition, then power must be reduced below the P-9 setpoint within the next 4 hours. The 6 hours allowed to place the inoperable channel in the tripped condition and the 4 hours allowed for reducing power are justified in Reference 7.

The Required Actions have been modified by a Note that allows placing an inoperable channel in the bypassed condition for up to 4 hours while performing routine surveillance testing of the other channels. The 4 hour time limit is justified in Reference 7.

BASES

ACTIONS

O.1 and O.2 (continued)

~~This places the unit in a MODE where the LCO is no longer applicable. This Function does not have to be OPERABLE below the P-8 setpoint because other RTS Functions provide core protection below the P-8 setpoint. The 6 hours allowed to restore the channel to OPERABLE status and the 4 additional hours allowed to reduce THERMAL POWER to below the P-8 setpoint are justified in Reference 7. The Required Actions have been modified by a Note that allows placing the inoperable channel in the bypassed condition for up to 4 hours while performing routine surveillance testing of the other channels. The 4 hour time limit is justified in Reference 7.~~

P.1 and P.2

Q3.3-02

Condition P applies to Turbine Trip on ~~Low Fluid Auto Stop Oil Pressure or on~~ Turbine Stop Valve Closure. With one or more channels inoperable, the inoperable channel must be placed in the trip condition within 6 hours. ~~If placed in the tripped condition, this results in a partial trip condition requiring~~ For the Turbine Trip on Turbine Stop Valve Closure function, where four-of-four channels are required to initiate a reactor trip, hence more than one channel may be placed in trip. ~~For the Turbine Trip on Low Auto Stop Oil Pressure function, if one channel is placed in trip, only one additional channel is required to initiate a reactor trip.~~ If the channel cannot be restored to OPERABLE status or placed in the trip condition, then power must be reduced below the P-9 setpoint within the next 4 hours. The 6 hours allowed to place the inoperable channel in the tripped condition and the 4 hours allowed for reducing power are justified in Reference 7.

Q3.3-02

Q3.3-02

(S)

Q3.3-02

Strike Out

~~The Required Actions have been modified by a Note that allows placing the an inoperable Low Auto Stop Oil Pressure channel in the bypassed condition for up to 4 hours while performing routine surveillance testing of the other channels. The 4 hour time limit is justified in Reference 7.~~

Q.1 and Q.2

Condition Q applies to the SI Input from ESFAS reactor trip and the RTS Automatic Trip Logic in MODES 1 and 2. These actions address the train orientation of the RTS for these Functions. With one train inoperable, 6 hours are allowed to restore the train to OPERABLE status (Required Action Q.1) or the unit must be placed in MODE 3 within the

DC ALL-002

(continued)

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1431

NUREG-1431 Section 3.3

This Enclosure contains a brief discussion/justification for each marked-up technical change to NUREG-1431, to make them plant-specific or to incorporate generic changes resulting from the Industry/NRC generic change process. The change numbers are referenced directly from the NUREG-1431 mark-ups (Enclosure 5A). For Enclosures 3A, 3B, 4, 6A, and 6B text in brackets "[ ]" indicates the information is plant specific and is not common to all the JLS plants. Empty brackets indicate that other JLS plants may have plant specific information in that location.

consistent with the format approved for Vogtle.

CHANGE NUMBER	JUSTIFICATION
3.3-01	This trip function or design feature is not included in the plant design or it is not credited and has no safety function.
3.3-02	For the Reactor Trip on Turbine Trip function based on turbine stop valve position, 4 of 4 channels are required to close to less than 1% open in order to generate the reactor trip signal. Thus, it is acceptable to have more than one Turbine Stop Valve Closure - reactor trip function channel inoperable and placed in trip per current TS Table 3.3-1, Functional Unit [17.b], ACTION Statement [7]. In addition, the 4 hour bypass note applies only to the [Low Auto Stop Oil Pressure] channels. ITS 3.3.1 Condition O has been added and Condition P has been revised. Q 3.3-02
3.3-03	~~This change to ITS 3.3.1 Condition R is consistent with the current licensing basis. A 4-hour AOT for SSPS logic surveillance testing has little usefulness if the RTBs cannot be bypassed for the duration of that testing. RTB surveillance testing retains the current 2-hour AOT.~~ Not Applicable to DCPP. See Conversion Comparison Table (Enclosure 6B). Q 3.3-03
3.3-04	Not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparision Table (Enclosure 6B).
3.3-05	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-06	Retains CTS power requirement of 75% RTP in the ITS SR 3.3.1.6 Note concerning when the incore/excore calibration is performed. ~~The ISTS proposal would require unnecessary delays in the post-refuel power ascension. As per the current TS 4.0.4 exception, it is acceptable to go above 75% RTP during power ascension provided the calibration is performed within 24 hours of exceeding 75% RTP. [The Note is further revised to permit achieving equilibrium conditions (per CTS 4.2.2.2.d.1) prior to performing the required surveillance.]~~ Insert 3.3-06 Q 3.3-06
3.3-07	Note 3 is added to ITS SR 3.3.1.11 to be consistent with the CTS Table 4.3-1 Note [5]. This ensures that this exception for power and intermediate range detector plateau voltage verification, as discussed in the ITS BASES for SR 3.3.1.11, is included in the Technical Specifications rather than being only found in the BASES. The note replaces the exception to LCO 3.0.4 in the current TS.
3.3-08	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-09	The addition of footnote [(m)] to ITS Table 3.3.1-1 for Function 10 clarifies the low flow setpoint relationship to the quantity identified as Minimum Measured Flow, consistent with the current TS. Q 3.3 GEN

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-01	This trip function or design feature is not included in the plant design or it is not credited and has no safety function.	Yes	Yes	Yes	Yes
3.3-02	It is acceptable to have more than one Turbine Stop Valve Closure - reactor trip function channels inoperable and placed in trip per CTS Table 3.3-1, Functional Unit [16.b], ACTION Statement [11]. In addition, the 4 hour bypass note applies only to the [Low Auto Stop Oil Pressure] channels. Condition O has been added and ITS 3.3.1 Condition P has been revised.	Yes	Yes	Yes	Yes Q 3.3-02
3.3-03 TS	~~This change~~ Notes 1 and 3 to ITS 3.3.1 Condition R ~~is~~ are revised/[illegible] consistent with the current ~~licensing basis~~. A 4-hour AOT for SSPS logic surveillance testing has little usefulness if the RTBs cannot be bypassed for the duration of that testing. RTB surveillance testing retains the current 2-hour AOT.	~~Yes~~ No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 64 dated 10-9-91) Q 3.3-03
3.3-04	This change represents the Callaway plant design as it relates to the SG Water Level-Low Low Environmental Allowance Modifier (EAM) and Trip Time Delay (TTD) circuitry. ~~ITS Table 3.3.1-1 and Table 3.3.2-1 entries and the associated Required Actions have been enhanced to remove the redundancy in the CTS and add shutdown actions when inoperable channels aren't tripped per their Completion Time.~~	No, see CN 3.3-46.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 43 dated 4-14-89) Q 3.3-04
3.3-05	This change to ITS SR 3.3.1.3 Note 1 represents the CTS as it relates to the Overtemperature ΔT AFD f_1 (ΔI) penalty function.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 84 dated 11-8-93)
3.3-06	Retains CTS power requirement of 75% RTP in the ITS SR 3.3.1.6 Note concerning when the incore/excore calibration is performed. ~~The ISTS proposal would require unnecessary delays in the post-refuel power ascension.~~ The Note is further revised to ~~permit achieving equilibrium conditions (per CTS 4.2.2.2.d.1) proir to performing the required surveillance.~~ increase the time for performing the surveillance from 24 hours to 72 hours.	Yes	No, see CN 3.3-97.	No, see 3.3-97.	No; see 3.3-97. Q 3.3-06

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-03 **APPLICABILITY:** CA, DC

REQUEST:

This change to ITS 3.3.1 Condition R is consistent with the current licensing basis. A 4-hour AOT for SSPS logic surveillance testing has little usefulness if the RTBs cannot be bypassed for the duration of that testing. RTB surveillance testing retains the current 2-hour AOT.

Comment: Note 3 to Condition R is generic and requires a staff approved TSTF before acceptance in ITS.

CTS Actions appear to be equivalent to STS. Show why the change to ITS 3.3.1 Condition R is consistent with the current licensing basis.

Also show which changes to Condition R are justified by 3-03. There are 3 electronic markup changes specified on the Condition.

FLOG RESPONSE: All current TS ACTIONS involving the bypass of the reactor trip breakers (RTBs) are translated into Notes to ITS 3.3.1 Condition R since that Condition specifically covers the inoperability of one RTB train. Note 3 to Condition R has been incorporated into the ITS based on the current TS (ACTION 31 for Functional Unit 20 in Table 3.3-1 at Callaway), as discussed in revised JFD 3.3-03. An NRC approved traveler is not required to maintain the current TS.

Note 1 to ITS 3.3.1 Condition R has been revised to reflect the STS, except the word "RTB" is retained before "surveillance testing." This is consistent with the current TS (ACTION 9 for Functional Unit 19 in Table 3.3-1 at Callaway) and clarifies that the bypass of the reactor trip breakers has different allowed time durations in the current TS, i.e., 2 hours for RTB surveillance testing and 4 hours for logic surveillance testing. Deletion of the words "or for maintenance" in Note 1 is discussed in response to Comment Number 3.3-43.

Note 2 to ITS 3.3.1 Condition R also reflects the current TS (ACTION 12 for Functional Unit 19 in Table 3.3-1 at Callaway), as discussed further in response to Comment Number 3.3-117.

The change to Note 1 and the addition of Note 3 are covered by JFD 3.3-03.

This DOC is no longer applicable to DCPP. The 4-hour bypass permitted by CTS ACTION 26 does not specifically state that the RTB can be bypassed; therefore, NOTE 3 to ITS ACTION R will be deleted.

ATTACHED PAGES:

Encl. 5A	3.3-10
Encl. 5B	B 3.3-51
Encl. 6A	1
Encl. 6B	1

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
R. One RTB train inoperable.	------------NOTES------------ 1. One train may be bypassed for up to 2 hours for surveillance testing or maintenance, provided the other train is OPERABLE. 2. One RTB may be bypassed only for ~~up to 2 hours~~the time required for performing maintenance on undervoltage or shunt trip mechanisms per CONDITION U, provided the other train is OPERABLE. ~~3. One RTB may be bypassed for up to 4 hours for logic testing per CONDITION Q, provided the other train is OPERABLE.~~ e ------------------------------	3.3-43 ~~3.3-43~~ e 3.3-117 3.3-117 ~~3.3-03~~ e Q 3.3-03
	R.1 Restore train to OPERABLE status.	1 hour
	OR	
	R.2 Be in MODE 3.	7 hours
S. One or more ~~required~~ e channels or trains inoperable.	S.1 Verify interlock is in required state for existing unit conditions.	1 hour 3.3-44 Q 3.3-44
	OR	
	S.2 Be in MODE 3.	7 hours

(continued)

BASES

ACTIONS

Q.1 and Q.2 (continued)

next 6 hours. The Completion Time of 6 hours (Required Action Q.1) is reasonable considering that in this Condition, the remaining OPERABLE train is adequate to perform the safety function and given the low probability of an event during this interval. The Completion Time of 6 hours (Required Action Q.2) is reasonable, based on operating experience, to reach MODE 3 from full power in an orderly manner and without challenging unit systems.

The Required Actions have been modified by a Note that allows bypassing one train up to ~~[4]~~ hours for surveillance testing, provided the other train is OPERABLE.

R.1 and R.2

Condition R applies to the RTBs in MODES 1 and 2. These actions address the train orientation of the RTS for the RTBs. With one train inoperable, 1 hour is allowed to restore the train to OPERABLE status or the unit must be placed in MODE 3 within the next 6 hours. The Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power in an orderly manner and without challenging unit systems. The 1 hour and 6 hour Completion Times are equal to the time allowed by LCO 3.0.3 for shutdown actions in the event of a complete loss of RTS Function. Placing the unit in MODE 3 ~~removes the requirement for this particular Function~~.

results in Condition C entry if one RTB train is inoperable

TR 3.3-006

Remove strike out

Q 3.3-03

The Required Actions have been modified by ~~two~~ ~~three~~ Notes. Note 1 allows one ~~channel~~ RTB to be bypassed for up to 2 hours for surveillance testing or maintenance, provided the other ~~channel~~ train is OPERABLE. Note 2 allows one RTB to be bypassed only for the time required for performing ~~for up to 2 hours for~~ maintenance on undervoltage or shunt trip mechanisms per Condition U if the other RTB train is OPERABLE. ~~Note 3 allows one RTB to be bypassed for up to 4 hours for logic surveillance testing per Condition Q provided the other train is OPERABLE.~~ The ~~2 hour~~ time limits are ~~is~~ justified in Reference 7 ~~5 and 13~~.

Q 3.3-03

S.1 and S.2

Condition S applies to the P-6 and P-10 interlocks. With one or more ~~required~~ channels inoperable, ~~for one out of two or two out of four coincidence logic~~, the associated interlock must be verified by observation of the associated permissive annunciator window to be in its required state for the existing unit condition

Q 3.3-44

(continued)

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1431

NUREG-1431 Section 3.3

This Enclosure contains a brief discussion/justification for each marked-up technical change to NUREG-1431, to make them plant-specific or to incorporate generic changes resulting from the Industry/NRC generic change process. The change numbers are referenced directly from the NUREG-1431 mark-ups (Enclosure 5A). For Enclosures 3A, 3B, 4, 6A, and 6B text in brackets "[ ]" indicates the information is plant specific and is not common to all the JLS plants. Empty brackets indicate that other JLS plants may have plant specific information in that location.

consistent with the format approved for Vogtle.

CHANGE NUMBER	JUSTIFICATION
3.3-01	This trip function or design feature is not included in the plant design or it is not credited and has no safety function.
3.3-02	For the Reactor Trip on Turbine Trip function based on turbine stop valve position, 4 of 4 channels are required to close to less than 1% open in order to generate the reactor trip signal. Thus, it is acceptable to have more than one Turbine Stop Valve Closure - reactor trip function channel inoperable and placed in trip per current TS Table 3.3-1, Functional Unit [17.b], ACTION Statement [7]. In addition, the 4 hour bypass note applies only to the [Low Auto Stop Oil Pressure] channels. ITS 3.3.1 Condition O has been added and Condition P has been revised. Q 3.3-02
3.3-03	~~This change to ITS 3.3.1 Condition R is consistent with the current licensing basis. A 4-hour AOT for SSPS logic surveillance testing has little usefulness if the RTBs cannot be bypassed for the duration of that testing. RTB surveillance testing retains the current 2-hour AOT.~~ Not Applicable to DCPP. See Conversion Comparison Table (Enclosure 6B). Q 3.3-03
3.3-04	Not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparision Table (Enclosure 6B).
3.3-05	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-06	Retains CTS power requirement of 75% RTP in the ITS SR 3.3.1.6 Note concerning when the incore/excore calibration is performed. ~~The ISTS proposal would require unnecessary delays in the post-refuel power ascension. As per the current TS 4.0.4 exception, it is acceptable to go above 75% RTP during power ascension provided the calibration is performed within 24 hours of exceeding 75% RTP. [The Note is further revised to permit achieving equilibrium conditions (per CTS 4.2.2.2.d.1) prior to performing the required surveillance.]~~ Insert 3.3-06 Q 3.3-06
3.3-07	Note 3 is added to ITS SR 3.3.1.11 to be consistent with the CTS Table 4.3-1 Note [5]. This ensures that this exception for power and intermediate range detector plateau voltage verification, as discussed in the ITS BASES for SR 3.3.1.11, is included in the Technical Specifications rather than being only found in the BASES. The note replaces the exception to LCO 3.0.4 in the current TS.
3.3-08	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-09	The addition of footnote [(m)] to ITS Table 3.3.1-1 for Function 10 clarifies the low flow setpoint relationship to the quantity identified as Minimum Measured Flow, consistent with the current TS. Q 3.3 GEN

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-01	This trip function or design feature is not included in the plant design or it is not credited and has no safety function.	Yes	Yes	Yes	Yes
3.3-02	It is acceptable to have more than one Turbine Stop Valve Closure - reactor trip function channels inoperable and placed in trip per CTS Table 3.3-1, Functional Unit [16.b], ACTION Statement [11]. In addition, the 4 hour bypass note applies only to the [Low Auto Stop Oil Pressure] channels. ITS 3.3.1 Condition P has been revised.	Yes Condition O has been added and	Yes	Yes	Yes Q 3.3-02
3.3-03 TS	~~This change~~ to ITS 3.3.1 Condition R Notes 1 and 3 ~~is~~ are revised to be consistent with the current ~~licensing basis~~. A 4-hour AOT for SSPS logic surveillance testing has little usefulness if the RTBs cannot be bypassed for the duration of that testing. RTB surveillance testing retains the current 2-hour AOT.	~~Yes~~ No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 64 dated 10-9-91) Q 3.3-03
3.3-04	This change represents the Callaway plant design as it relates to the SG Water Level-Low Low Environmental Allowance Modifier (EAM) and Trip Time Delay (TTD) circuitry. ~~ITS Table 3.3.1-1 and Table 3.3.2-1 entries and the associated Required Actions have been enhanced to remove the redundancy in the CTS and add shutdown actions when inoperable channels aren't tripped per their Completion Time.~~	No, see CN 3.3-46.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 43 dated 4-14-89) Q 3.3-04
3.3-05	This change to ITS SR 3.3.1.3 Note 1 represents the CTS as it relates to the Overtemperature ΔT AFD f_1 (ΔI) penalty function.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 84 dated 11-8-93)
3.3-06	Retains CTS power requirement of 75% RTP in the ITS SR 3.3.1.6 Note concerning when the incore/excore calibration is performed. ~~The ISTS proposal would require unnecessary delays in the post-refuel power ascension.~~ The Note is further revised to ~~permit achieving equilibrium conditions (per CTS 4.2.2.2.d.1) proir to performing the required surveillance.~~ increase the time for performing the surveillance from 24 hours to 72 hours.	Yes	No, see CN 3.3-97.	No, see 3.3-97.	No; see 3.3-97. Q 3.3-06

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-06 **APPLICABILITY:** DC

REQUEST:

Retains current TS power requirement of 75% RTP in the ITS SR 3.3.1.6 Note concerning when the incore/excore calibration is performed. The ISTS proposal would require unnecessary delays in the post-refuel power ascension. The Note is further revised to permit achieving equilibrium conditions (per CTS 4.2.2.2.d.1) prior to performing the required surveillance.

Comment: Explain how CTS 4.2.2.2.d.1 provides a technical justification for adding "acheiving equilibrium conditions" to the Note in SR 3.3.1.6.

FLOG RESPONSE: The original intent of this change was to retain the CTS 4.0.4 exception flexibility while adopting the ITS format and the restriction on completing the surveillance requirement.

CTS note (6) of Table 3.4-1 for Functional Unit 2.a., states that the incore-excore calibration is required above 75% RTP at least once per 92 EFPD, with a 4.0.4 exception. DCPP interprets this requirement to allow the calibration to be performed at a reasonably high power level (to eliminate low power effects), but prior to exceeding 92 EFPD. In actual practice, the calibration and incore-excore comparisons (CTS note(3)) are performed several times during the power ascention program. The first calibration/comparison is performed at the 48% RTP post-refueling outage plateau to allow sufficient time to establish equilibrium conditions and collect and analyze the necessary data. It takes approximately 24 hours to establish equilibrium conditions and another 20 hours to collect and analyze the data. If the excore calibration CTS acceptance criteria is not met, an additional 6 to 8 hours is needed to adjust each flux monitor. This calibration/comparison is performed to satisfy LCO 3.2.1 for axial flux difference (AFD) and to establish the full power NIS currents and the NIS required gains for incore-excore differences. Prior to exceeding 50% RTP, the High Range NIS trip setpoints are adjusted to their full power values, from their administratively controlled level of 72% RTP. These NIS full power trip setpoint adjustments are made only if the AFD calibration is within limits per LCO 3.2.1 and the appropriate power peaking factors are verified acceptable for operation at higher power levels. The calibration/comparison is again checked at the 75% (an abbreviated test is performed) and 90% RTP plateaus and any adjustments required by procedure or CTS Table 4.3-1 note (3) are made. The testing at 90% RTP takes approximately 72 hours. At 100% RTP, a multi-point calibration is performed to "fine tune" the gains established at the 48% RTP power plateau. This process takes approximately one week to perform and analyze the data. This portion of the testing is not considered to be required by CTS, but is considered to be good practice. A full-core "base" flux map is obtained. The control rods are then inserted into the core to initiate a swing in the axial flux difference (AFD). Several partial flux maps are then collected at various values of AFD. The plant is then returned to a stable condition and any adjustments performed to satisfy the procedural acceptance criteria. Plant experience indicates that the incore-excore calibration/comparison adjustments are minimal when performed using this testing methodology.

SR 3.3.1.6 as presented in NUREG-1431 allows 24 hours (bracketed) to perform the comparison/calibration at the first testing plateau above 50% RTP, which is 90% RTP. The process which includes: 1) increasing power to the 90% RTP plateau, 2) establishing equilibrium conditions, 3) collecting and analyzing data, and 4) making any necessary

adjustments, cannot be completed in the allowed time. Therefore, the power level is increased to 75% per CTS, the reference to "achieving equilibrium conditions" in the SR 3.3.1.6 note is deleted, and the time referenced is revised to 72 hours. JFD 3.3-06 is revised to incorporate the above discussion and justification.

ATTACHED PAGES:

Encl. 5A	3.3-14
Encl. 5B	B 3.3-57
Encl. 6A	1
Encl. 6B	1

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.1.4	--------------------NOTE-------------------- This Surveillance must be performed on the reactor trip bypass breaker, for the local manual shunt trip only, prior to placing the bypass breaker in service. --- Perform TADOT.	3.3-124 31 days on a STAGGERED TEST BASIS
SR 3.3.1.5	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.1.6	--------------------NOTE-------------------- Not required to be performed until ~~24~~ 72 hours after ~~achieving equilibrium conditions with~~ THERMAL POWER ~~is~~ ≥ ~~50~~ 75% RTP. --- Calibrate excore channels to agree with incore detector measurements.	B 3.3-06 Q 3.3-06 92 EFPD B
SR 3.3.1.7	--------------------NOTE-------------------- ~~1.~~ Not required to be performed for source range instrumentation prior to entering MODE 3 from MODE 2 until 4 hours after entry into MODE 3. ~~2. For source range instrumentation, this Surveillance shall include verification that interlocks P-6 and P-10 are in their required state for existing unit conditions.~~ e --- Perform COT.	B DC 3.3-004 ~~3.3-111~~ e 92 days B

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.6 (continued)

A Note modifies SR 3.3.1.6.. The Note states that this Surveillance is required only if reactor power is > ~~50~~ 75% RTP and that ~~[24]~~ 72 hours after ~~achieving equilibrium conditions with~~ thermal power as >75% RTP is allowed for performing the first surveillance ~~after reaching 50 75% RTP~~. retain strike out delete strike out Q 3.3-06

The Frequency of 92 EFPD is adequate. It is based on industry operating experience, considering instrument reliability and operating history data for instrument drift.

SR 3.3.1.7

SR 3.3.1.7 is the performance of a COT every ~~[92]~~ days.

A COT is performed on each required channel to ensure the entire channel will perform the intended Function.

Setpoints must be within the Allowable Values specified in Table 3.3.1-1.

Remove strike out DC ALL-005

~~The difference between the current "as found" values and the previous test "as left" values must be consistent with the drift allowance used in the setpoint methodology. The setpoint shall be left set consistent with the assumptions of the current unit specific setpoint methodology~~ ~~trip setpoint value~~.

DC ALL-002

~~The "as found" and "as left" values must also be recorded and reviewed for consistency with the assumptions of Reference 7.~~ delete strike out

SR 3.3.1.7 is modified by ~~two notes,~~ a Note ~~1~~ ~~that~~ provides a 4 hour delay in the requirement to perform this Surveillance for source range instrumentation when entering MODE 3 from MODE 2. This Note allows a normal shutdown to proceed without a delay for testing in MODE 2 and for a short time in MODE 3 until the RTBs are open and SR 3.3.1.7 is no longer required to be performed. If the unit is to be in MODE 3 with the RTBs closed for > 4 hours this Surveillance must be performed prior to 4 hours after entry into MODE 3. ~~Note 2 requires that the quarterly COT for the source range instrumentation shall include verification by observation of the associated permissive annunciator window that the P-6 and P-10 interlocks are in their required state for the existing unit conditions.~~ DC 3.3-004 DC 3.3-004

The Frequency of ~~[92]~~ days is justified in Reference 7.

INSERT SR 3.3.1.7

(continued)

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1431

NUREG-1431 Section 3.3

This Enclosure contains a brief discussion/justification for each marked-up technical change to NUREG-1431, to make them plant-specific or to incorporate generic changes resulting from the Industry/NRC generic change process. The change numbers are referenced directly from the NUREG-1431 mark-ups (Enclosure 5A). For Enclosures 3A, 3B, 4, 6A, and 6B text in brackets "[ ]" indicates the information is plant specific and is not common to all the JLS plants. Empty brackets indicate that other JLS plants may have plant specific information in that location.

consistent with the format approved for Vogtle.

CHANGE NUMBER	JUSTIFICATION
3.3-01	This trip function or design feature is not included in the plant design or it is not credited and has no safety function.
3.3-02	Condition O has been added and Q 3.3-02 For the Reactor Trip on Turbine Trip function based on turbine stop valve position, 4 of 4 channels are required to close to less than 1% open in order to generate the reactor trip signal. Thus, it is acceptable to have more than one Turbine Stop Valve Closure - reactor trip function channel inoperable and placed in trip per current TS Table 3.3-1, Functional Unit [17.b], ACTION Statement [7]. In addition, the 4 hour bypass note applies only to the [Low Auto Stop Oil Pressure] channels. ITS 3.3.1 Condition P has been revised,
3.3-03	~~This change to ITS 3.3.1 Condition R is consistent with the current licensing basis. A 4-hour AOT for SSPS logic surveillance testing has little usefulness if the RTBs cannot be bypassed for the duration of that testing. RTB surveillance testing retains the current 2-hour AOT.~~ Not Applicable to DCPP. See Conversion Comparison Table (Enclosure 6B). Q 3.3-03
3.3-04	Not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparision Table (Enclosure 6B).
3.3-05	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-06	Retains CTS power requirement of 75% RTP in the ITS SR 3.3.1.6 Note concerning when the incore/excore calibration is performed. ~~The ISTS proposal would require unnecessary delays in the post-refuel power ascension. As per the current TS 4.0.4 exception, it is acceptable to go above 75% RTP during power ascension provided the calibration is performed within 24 hours of exceeding 75% RTP. [The Note is further revised to permit achieving equilibrium conditions (per CTS 4.2.2.2.d.1) prior to performing the required surveillance.]~~ INSERT 3.3-06 Q 3.3-06
3.3-07	Note 3 is added to ITS SR 3.3.1.11 to be consistent with the CTS Table 4.3-1 Note [5]. This ensures that this exception for power and intermediate range detector plateau voltage verification, as discussed in the ITS BASES for SR 3.3.1.11, is included in the Technical Specifications rather than being only found in the BASES. The note replaces the exception to LCO 3.0.4 in the current TS.
3.3-08	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-09	The addition of footnote [(m)] to ITS Table 3.3.1-1 for Function 10 clarifies the low flow setpoint relationship to the quantity identified as Minimum Measured Flow, consistent with the current TS. Q 3.3 GEN

Insert for Q 3.3-06
Enclosure 6A page 1
Insert 3.3-06

Increases the allowed time for the completion of the surveillance from 24 hours to 72 hours, which is consistent with the established plant practices. CTS note (6) for the incore-excore calibration is required above 75% RTP at least once per 92 EFPD, with a 4.0.4 exception. DCPP interprets this requirement to allow the calibration to be performed at any power level above 75%, but prior to exceeding 92 EFPD. In actual practice, the calibration and incore-excore comparison is performed at the 48% RTP post-refueling outage plateau to allow sufficient time to establish equilibrium conditions and collect and analyze the necessary data. It takes approximately 24 hours to establish equilibrium conditions and another 20 hours to collect data and analyze the data. If the excore calibration CTS acceptance criteria is not met, an additional 6 to 8 hours is needed to adjust each flux monitor. This calibration/comparison is performed satisfy LCO 3.2.1 for axial flux difference (AFD) and to establish the full power NIS currents and the NIS required gains for incore-excore differences. Prior to exceeding 50% RTP, the High Range NIS trip setpoints are adjusted to their full power values, from their administratively controlled level of 72% RTP. These adjustments are made only if the AFD calibration is within limits per LCO 3.2.1 and the appropriate power peaking factors are verified acceptable for operation at higher power levels. The calibration/comparison is again checked at the 90% RTP plateau and any adjustments required by procedure or CTS Table 4.3-1 note (3) are made. The testing at 90% RTP takes approximately 72 hours and includes; 1) the power increase from 75% to 90% RTP, 2) establishing equilibrium conditions, 3) collecting and analyzing data, and 4) making any necessary adjustments.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-01	This trip function or design feature is not included in the plant design or it is not credited and has no safety function.	Yes	Yes	Yes	Yes
3.3-02	It is acceptable to have more than one Turbine Stop Valve Closure - reactor trip function channels inoperable and placed in trip per CTS Table 3.3-1, Functional Unit [16.b], ACTION Statement [11]. In addition, the 4 hour bypass note applies only to the [Low Auto Stop Oil Pressure] channels. ITS 3.3.1 Condition O has been added and Condition P has been revised.	Yes	Yes	Yes	Yes Q 3.3-02
3.3-03 TS	~~This change~~ Notes 1 and 3 to ITS 3.3.1 Condition R are revised/added to ~~is~~ consistent with the current ~~licensing basis~~ TS. A 4-hour AOT for SSPS logic surveillance testing has little usefulness if the RTBs cannot be bypassed for the duration of that testing. RTB surveillance testing retains the current 2-hour AOT.	~~Yes~~ No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 64 dated 10-9-91) Q 3.3-03
3.3-04	This change represents the Callaway plant design as it relates to the SG Water Level-Low Low Environmental Allowance Modifier (EAM) and Trip Time Delay (TTD) circuitry. ~~ITS Table 3.3.1-1 and Table 3.3.2-1 entries and the associated Required Actions have been enhanced to remove the redundancy in the CTS and add shutdown actions when inoperable channels aren't tripped per their Completion Time.~~	No, see CN 3.3-46.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 43 dated 4-14-89) Q 3.3-04
3.3-05	This change to ITS SR 3.3.1.3 Note 1 represents the CTS as it relates to the Overtemperature ΔT AFD f_1 (ΔI) penalty function.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 84 dated 11-8-93)
3.3-06	Retains CTS power requirement of 75% RTP in the ITS SR 3.3.1.6 Note concerning when the incore/excore calibration is performed. ~~The ISTS proposal would require unnecessary delays in the post-refuel power ascension.~~ The Note is further revised to ~~permit achieving equilibrium conditions (per CTS 4.2.2.2.d.1) proir to performing the required surveillance.~~ increase the time for performing the surveillance from 24 hours to 72 hours.	Yes	No, see CN 3.3-97.	No, see 3.3-97.	No; see 3.3-97. Q 3.3-06

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-10 **APPLICABILITY:** DC, WC

REQUEST:

[The Overtemperature DT setpoint equation had a bracket in the wrong place and was corrected.] In addition, the f_1 (DI) penalty function was corrected and the K2 inequality sign was changed to an equal sign.

Comment: Reject for [DC]. The ITS proposes generic changes to the ITS that are not included in current TS. In Note 2 of ITS Table 3.3.1-1 the inequalities for t4 and t5 are reversed from the CTS markup in Note 3 of Table 2.2-1.

[WC] - Revise T' be "nominal"; Revise 2-04M to include t. Show that the F(DI) terms in ITS are equivalent to CTS values. Provide justification for text deleted from F(DI) Overtemperature DT Note 1.

FLOG RESPONSE: For DCPP, the change to the ITS OTΔT equation to relocate the bracket has been deleted and the CTS OTΔT equation has been restored to the original version which has been verified to be consistent with the Eagle 21 WCAP-11082, Rev. 2. JFD 3.3-10 is no longer applicable to DCPP.

For WCGS, T' has been revised to "nominal. The F(ΔI) terms in the ITS have been revised to reflect correct decimal point placement instead of a percentage as in the CTS. No justification is required since the CTS text is equivalent to the ITS equations. The CTS discussed F(ΔI) in a text type format while the ITS uses an equation format.

Also, refer to the response to Comment Number Q 2-04 (2.0).

ATTACHED PAGES:

Refer to attached pages of response to Comment Number Q 2-04 (2.0).

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-20 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

Added note 2 on [Containment Area Radiation (High Range)] calibration in ITS SR [3.3.3.3] to be consistent with current TS Table [4.3.3.3.b footnote].

Comment: Reject - Move contents of the note to the Bases.

Modify Rev 0 with a new LG comment to move the note.

FLOG RESPONSE: JFD 3.3-20 proposed adding a note to ITS SR 3.3.3.2 for WCGS, Callaway and DCPP and ITS SR 3.3.3.3 for CPSES consistent with the CTS. The ITS is revised to move the contents of the note to the ITS Bases. DOC 8-09-LG has been initiated for moving the CTS footnote to the ITS Bases. The DOC states:

"The CTS [Table 4.3-7 Note *] associated with the [Containment Area Radiation Monitor-High Range] instrumentation provides details of methods of performance of the instrument channel calibration. These details are moved to the ITS Bases. These details are not necessary to ensure the associated Post Accident Monitoring (PAM) instrument is operable. The requirements of ITS LCO 3.3.3 and the associated Surveillances are adequate for ensuring the associated PAM instrument is operable. As such, these details are not required to be in the TS to provide adequate protection of the public health and safety. Moving these details maintains consistency with NUREG-1431. Any change to these details will be made in accordance with the Bases Control Program described in ITS Section 5.5.11."

ATTACHED PAGES:

Encl. 2	3/4 3-53
Encl. 3A	22
Encl. 3B	30
Encl. 5A	3.3-54
Encl. 5B	B 3.3-148
Encl. 6A	3
Encl. 6B	3

Q 8-11

~~TABLE 4.3-7~~

~~ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS~~

~~INSTRUMENT~~	~~CHANNEL CHECK~~	~~CHANNEL CALIBRATION~~		
~~1. Containment Pressure~~	~~M~~	~~R~~ 24	DC ALL-005	~~08-11~~ ~~1530~~ A
~~2. Reactor Coolant Outlet Temperature - T_{hot} (Wide Range)~~	~~M~~	~~R~~ 24		
~~3. Reactor Coolant Inlet Temperature - T_{cold} (Wide Range)~~	~~M~~	~~R~~ 24		
~~4. Reactor Coolant Pressure - Wide Range~~	~~M~~	~~R~~ 24		
~~5. Pressurizer Water Level~~	~~M~~	~~R~~ 24		
~~6. Steam Line Pressure~~	~~M~~	~~R~~ 24		
~~7. Steam Generator Water Level - Narrow Range~~	~~M~~	~~R~~ 24		
~~8. Refueling Water Storage Tank Water Level~~	~~M~~	~~R~~ 24		
~~9. Containment Reactor Cavity Sump Level Wide Range~~	~~M~~	~~R~~ 24		
~~10. Containment Recirculation Sump Level Narrow Range~~	~~M~~	~~R~~ 24		
~~11. Auxiliary Feedwater Flow Rate~~	~~M~~	~~R~~ 24		
~~12. Reactor Coolant System Subcooling Margin Monitor~~	~~M~~	~~R~~ 24		
~~13. PORV Position Indicator~~	~~M~~	~~R~~ 24		
~~14. PORV Block Valve Position Indicator~~	~~M~~	~~R~~ 24		
~~15. Safety Valve Position Indicator~~	~~M~~	~~R~~ 24		
~~16. In Core Thermocouples~~	~~M~~	~~R~~ 24		
~~17. Main Steam Line Radiation Monitor~~	~~M~~	~~R~~ 24		
~~18. Containment Area Radiation Monitor High Range~~	~~M~~	~~R*~~ 24		
~~19. Plant Vent Radiation Monitor High Range~~	~~M~~	~~R~~		
~~20. Reactor Vessel Level Indication System~~	~~M~~	~~R~~ 24	DCALL-005	

~~*CHANNEL CALIBRATION may consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.~~

~~08-09~~ LG

Q 3.3-20

CHANGE NUMBER	NSHC	DESCRIPTION
08-03	A	This change revises CTS Table [3.3-10] to clarify the number of channels required to be Operable. This is an administrative change which deletes the "Minimum Channels Operable" column [ ]. The required ACTIONs are now based on one channel inoperable or two channels inoperable, rather than "less than the Total Number" or "less than Minimum Number." This change is consistent with NUREG-1431.
08-04	LS17	Consistent with NUREG-1431 (ITS 3.3.3 Required ACTIONs C.1, E.1, and G.1), this change deletes the requirement to initiate an alternate means of monitoring within 72 hours when two channels of Containment Radiation Level ~~[or RVLIS]~~ are inoperable as specified in CTS [3.3.3.6 ACTION d. In addition, a special report is required within 14 days that identifies the alternate method of monitoring the appropriate parameter(s), as well as the current special report requirements]. DC ALL-002
08-05	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-06	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-07	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-08	LS27	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-09	LG	~~Not Used.~~ INSERT 8-09 Q 3.3-20
08-10		Not Used.
08-11	LS30	This change revises the DCPP CTS 3.3.3.6 to conform to NUREG-1431 and revises CTS Table 3.3-10 to both add and delete instruments per the Reviewer's Note on ISTS Table 3.3.3-1. Q 8-11
08-11	A	INSERT 8-11-A
08-11	M	INSERT 8-11-M
09-01	LG	The explosive gas monitoring instrumentation will be controlled by the Explosive Gas Monitoring Program established in accordance with ITS 5.5.12, see Attachment 21, page 15.
10-01	R	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). ~~The Turbine Overspeed Protection System is relocated to a licensee controlled document, see LAR 95-07.~~ DC ALL-004
11-01	~~R~~	~~LCO 3.3.3.7, Chlorine Detection Systems, is relocated to a licensee controlled document, see LAR 95-07.~~ Not used. DC ALL-004

Insert for Q 3.3-20

Enclosure 3A page 22
Insert 8-09

The CTS [Table 4.3-7 Note *] associated with the [Containment Area Radiation Monitor-High Range] instrumentation provides details of methods of performance of the instrument channel calibration. These details are moved to the ITS Bases. These details are not necessary to ensure the associated Post Accident Monitoring (PAM) instrument is Operable. The requirements of ITS LCO 3.3.3 and the associated Surveillances are adequate for ensuring the associated PAM instrument is Operable. As such, these details are not required to be in the TS to provide adequate protection of the public health and safety. Moving these details maintains consistency with NUREG-1431. Any change to these details will be made in accordance with the Bases Control Program described in ITS Section 5.5.11.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
08-08 LS27	Consistent with NUREG-1431 Rev. 1, this change extends the requirement to restore the inoperable channel to operable status from 7 days to 30 days. Consistent with NUREG-1431, this change extends the requirement to restore the inoperable channel to operable status from 48 hours to 7 days. Finally, consistent with NUREG-1431, this change replaces the requirement to shut down the plant with a requirement to submit a report describing an alternate, preplanned method of monitoring the process. Because the T_{hot} and T_{cold} channels are single channel functions (1/loop) with adequate alternate functions available, the action statements for these functions are revised consistent with the philosophy of NUREG-1431. The restoration time for inoperable channels with adequate alternate functions is decreased from 90 days in CTS to 30 days in the improved TS; however, the option of providing a written report describing an alternate, preplanned method of monitoring the process is allowed. If the above conditions are not met, 7 days are allowed for function restoration prior to initiating a required shutdown. ACTION 33 has been deleted because, after revision to be consistent with NUREG-1431, it is identical to ACTION 32. These changes are less restrictive in that the required channel restoration times are increased and the option of submitting special reports in lieu of a plant shutdown is provided.	No	Yes	No	No
08-09 LG	~~Not used~~ e INSERT 8-09a	~~N/A~~ e YES	~~N/A~~ e YES	~~N/A~~ e YES	~~N/A~~ e YES

Q 3.3-20

Insert for Q 3.3-20

Enclosure 3B
Insert 8-09a

The CTS [Table 4.3-7 Note *] associated with the [Containment Area Radiation Monitor High Range] instrumentation provides details of methods of performance of the instrument channel calibration. These details are moved to the ITS Bases.

SR 3.3.3.2	~~NOTE~~ ~~1. Neutron detectors are excluded from CHANNEL CALIBRATION.~~ ~~2. CHANNEL CALIBRATION for Containment Area Radiation may consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.~~ Perform CHANNEL CALIBRATION.	Q 8-11 3.3-109 ~~3.3-20~~ Q 3.3-20 24 ~~18~~ months DC ALL-005 B
SR 3.3.3.3	Perform CHANNEL CALIBRATION for Hydrogen Monitoes.	92 days 3.3-112 Q 12-05(3.6)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.3.1 (continued)

it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION. The high radiation instrumentation should be compared to similar unit instruments located throughout the unit.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including isolation, indication, and readability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit. If the channels are within the criteria, it is an indication that the channels are OPERABLE.

As specified in the SR, a CHANNEL CHECK is only required for those channels that are normally energized. The Containment Hydrogen Concentration monitors are maintained in a "standby" condition which does not energize all of the monitor components, thus the monitors are not considered "normally energized".

The Frequency of 31 days is based on operating experience that demonstrates that channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

May consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.

SR 3.3.3.2

A CHANNEL CALIBRATION is performed every ~~[18]~~ 24 months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to measured parameter with the necessary range and accuracy. ~~This SR is modified by a two Notes. that Note 1 excludes neutron detectors from CHANNEL CALIBRATION. The calibration method for neutron detectors is specified in the Bases of LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation." Note 2 discusses an allowed methodology for calibrating the~~ Containment Radiation Level (High Range) Function. The Frequency is based on operating experience and consistency with the typical industry refueling cycle.

DC AU-005

Q8-11

CHANNEL CALIBRATION of the

Q 3.3-20

REFERENCES

1. ~~[Unit specific document (e.g.,~~ FSAR, ~~NRC Regulatory Guide 1.97 SER letter).]~~ 7.5.
2. Regulatory Guide 1.97, ~~[date]~~ Revision 3.
3. NUREG-0737, Supplement 1, "TMI Action Items."

INSERT SR 3.3.3.2
TR 3.3-004

INSERT SR 3.3.3.3

Q 12-05 (3.6)

(continued)

And 3.3.1 Table 4.3-1 functional unit 21

CHANGE NUMBER	JUSTIFICATION
3.3-20	Not used ~~This change adds note 2 on [Containment Radiation Level (High Range)] calibration in ITS SR [3.3.3.2] to be consistent with current TS Table [4.3-7 Note (2)]. This note is acceptable as it reflects the unique calibration requirements of these high range radiation monitors as defined in the current TS.~~ Q 3.3-20
3.3-21	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B). DC 3.3-Ed
3.3-22	Consistent with CTS [3.3.3.5~~]~~, [~~RCP breaker indication is excluded from CHANNEL CHECKS and reactor trip breaker and~~ RCP breaker indications are excluded from] CHANNEL CALIBRATIONS in ITS SR 3.3.4.3 since these SRs have no meaning for ~~[these]~~ this function~~s~~. Q 3.3-22 DC ALL-002
3.3-23	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-24	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-25	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-26	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-27	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-28	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-29	~~{Not used}~~ 3.3-29 INSERT DC ALL-002
3.3-30	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-31	The current TS require the response times associated with the ~~[undervoltage and degraded voltage diesel generator start functions and the]~~ containment [purge and exhaust] isolation functions to be verified against the specific response time values contained in the ~~[FSAR]~~ CTS. The ITS is revised to match the current TS and the response time values are [moved to the FSAR per CN 01-35-LG]. As is done with the Reactor Trip System and the ESFAS instrumentation, this method is an appropriate way to control response times. [~~SR 3.3.5.4 and~~ SR 3.3.6.8] are added to require the response time verifications. DC ALL-002 DC 3.3-Ed DC ALL-002
3.3-32	Improved TS [3.3.6 ACTION A is modified by a Note and] Table 3.3.6-1 is changed to be consistent with current TS [3.3.2 Functional Unit 3.c and current TS 3.9.9]. Subfunctions [b, c and d] of Containment Radiation are stricken since only the gaseous [ ] channel provides the actuation function [and the bracketed setpoint is changed to reflect plant-specific requirements]. [The number of gaseous monitors required for CORE ALTERATIONS or during movement of irradiated fuel has been revised to one (either RM 44A or B) per the CTS].
3.3-33	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-34	This change adds an LCO 3.0.3 exception Note 1 to ITS 3.3.8 to reflect ~~industry Traveler TSTF-36, Rev. 2.~~ current TS [3.3.3.1 ACTION c. and 3.9.1.2 ACTION c]. Q 3.3-34
3.3-35	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-36	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-15	The CHANNEL CHECK surveillance (SR 3.3.2.1) is deleted from the P-11 [ ] interlock because CHANNEL CHECKS are not applicable for permissive functions. This change is consistent with the CTS.	Yes	Yes	Yes	Yes
3.3-16	[Added Note (n) and] deleted SR 3.3.2.9 from Function 6.g in ITS Table 3.3.2-1. [Note (n) is added to avoid auxiliary feedwater actuations during normal plant startups and shutdowns.] These changes are consistent with CTS [Table 3.3-3 Note ### and] Table 4.3-2 Functional Unit [6.g].	No, not in CTS.	Yes	Yes, (Note [(p)] per CTS.)	Yes, (Note [(n)] per CTS, OL Amendment No. 26 dated 7-29-87)
3.3-17	New CONDITION [P] is added for Function 6.h of ITS Table 3.3.2-1, consistent with CTS Table 3.3-3 ACTION Statement [15].	No, not in CTS.	No, not in CTS.	Yes	Yes
3.3-18	Revises ITS 3.3.2 Condition K to be consistent with CTS Table 3.3-3 ACTION Statement 32, as revised per Enclosure 2, for Functional Unit 7.b.	No, not in CTS.	No, not in CTS.	No, see CN 3.3-134.	Yes, (CTS per OL Amendment No. 64 dated 10-9-91)
3.3-19	18-month test interval previously approved by NRC for selected slave relays which, if tested at power, could result in plant trips or upsets.	No, not in CTS.	No, not in CTS.	Yes (justified per SLNRC 84-0038 dated 2-27-84)	Yes (justified per SLNRC 84-0038 dated 2-27-84)
3.3-20	~~Added Note 2 on [Containment Radiation Level (High Range)] calibration in ITS SR [3.3.3.2] to be consistent with CTS Table [4.3-7 Note (2)].~~ Not used	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA

Q 3.3-20

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-22 **APPLICABILITY:** DC, WC, CA

REQUEST:

Consistent with current TS [3.3.3.5], [RCP breaker indication is excluded from CHANNEL CHECKS and reactor trip breaker and RCP breaker indications are excluded from] CHANNEL CALIBRATIONS in ITS SR 3.3.4.3 since these SRs have no meaning for [these] functions.

Comment: {DC} - Surveillance of RTB position indication at the remote S/D panel is not required by either CTS or ITS. Thus, the existing SR is inadequate to confirm the LCO requirement has been met. The JFD notes that this deviation from the ISTS should be allowed because RTB position indication suveillance is required by the CTS RTS LCO. While breaker contacts would be tested under the CTS SR, the requirements in that LCO are not interpreted to require a surveillance of the function to ensure the remote shutdown function is operable.

{WC & CW} - It is noted that CTS require a channel check of RTB position, but this requirement is deleted from ITS.

Revise ITS SR 3.3.4.3 to include ISTS SR 3.3.4.4 for RTB and RCP breakers because there are no RSS panel design features which prohibit testing.

FLOG RESPONSE: For DCPP, this change is withdrawn as applicable to ITS SR 3.3.4.1 since a CHANNEL CHECK is performed via the TADOT required by CTS Table 4.3-1, functional unit 21, which verifies the indication. A paragraph is added to the Bases for ITS SR 3.3.4.1 noting that RTB indication is verified during the performance of the TADOT of ITS SR 3.3.1.4 for function 20 of Table 3.3.1-1 and that a separate surveillance is not necessary. The addition to the note for ITS SR 3.3.4.3 is retained since the calibration of an indication has no meaning.

The following is offered in response to the statement that the existing CTS surveillance is inadequate. The remote shutdown panel does not have an RTB indication; the RTB indication is at the breaker and it is tested every 31 days on a staggered test basis via the TADOT required by Table 4.3-1, functional unit 21 which verifies the indication (the TADOT surveillance is carried over to the ITS via SR 3.3.1.4). CTS Table 3.3-9 identifies the indication as being at the RTB, and since a channel check and a calibration of an indication have no meaning for these functions, the CHANNEL CHECK and CALIBRATION columns of the Table are marked NA.

For WCGS and Callaway, CTS Table 4.3-6 indicates that a monthly CHANNEL CHECK is performed on Reactor Trip Breaker Indication. This surveillance is performed by verifying the Reactor Trip Breaker Indication against the Reactor Trip Breaker position at the switchgear. ITS SR 3.3.4.1 requires the performance of a CHANNEL CHECK for each required instrumentation channel and the Reactor Trip Breaker Position is still in Table 3.3.4-1. Therefore, Wolf Creek and Callaway believe that the ITS includes the CTS requirement. The ITS SR 3.3.4.1 Bases are revised to indicate that the verification of the breaker position to indication meets the requirements to perform a CHANNEL CHECK.

The Reviewer's Note for STS Table 3.3.4-1 implies that CTS Tables 3.3-9 and 4.3-6 Functions are to be transferred into ITS Table 3.3.4-1. For WCGS and Callaway, RCP breakers

(Instrument 6) are specified in CTS Tables 3.3-9 and 4.3-6, and therefore were included in ITS Table 3.3.4-1. After further review, it was determined that a CHANNEL CHECK should be performed on RCP breaker indication. DOC 7-07-M is initiated to add a monthly CHANNEL CHECK to CTS Table 4.3-6. The Note above ITS SR 3.3.4.1 is also deleted.

The Auxiliary Shutdown Panel does not have RTB or RCP breaker indication. Verification of RTB status is addressed by ITS 3.3.1, Functions 19 and 20. Verification of RCS flow is performed by other specifications, including ITS 3.3.1, Function 10 (Reactor Coolant Flow-Low) and ITS 3.4.1. Additionally, CTS Table 4.3-6 does not require a CHANNEL CALIBRATION or TADOT of the RTB or RCP breakers. These surveillances have no meaning for a breaker position indication.

ATTACHED PAGES:

Encl. 5A	3.3-58
Encl. 5B	B 3.3-153 and 155
Encl. 6A	3
Encl. 6B	4

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.4.1	~~-------------------NOTE-------------------~~ ~~Reactor Trip Breaker position is excluded from CHANNEL CHECK.~~ ~~--~~ Perform CHANNEL CHECK for each required instrumentation channel ~~that is normally energized~~.	~~3.3-22~~ B Q 3.3-22 31 days 3.3-69
SR 3.3.4.2	Verify each required control circuit and transfer switch is capable of performing the intended function.	18 months 24 B DC ALL-005
SR 3.3.4.3	-------------------NOTE------------------- ~~Neutron detectors are excluded from CHANNEL CALIBRATION~~Reactor Trip Breaker position is excluded from CHANNEL CALIBRATION. -- Perform CHANNEL CALIBRATION for each required instrumentation channel.	3.3-84 3.3-22 18 months 24 B DC ALL-005
~~SR 3.3.4.4~~	~~Perform TADOT of the reactor trip breaker open/closed indication.~~	~~18 months~~

BASES

ACTIONS (continued)

A.1

remove strike out

Condition A addresses the situation where one or more required Functions of the Remote Shutdown ~~System~~ ~~(Instrumentation and SD panel controls)~~ are inoperable. ~~This includes any Function listed in Table 3.3.4-1, as well as the control and transfer switches.~~ e

Q 3.3-94

The Required Action is to restore the required Function to OPERABLE status within 30 days. The Completion Time is based on operating experience and the low probability of an event that would require evacuation of the control room.

B.1 and B.2

If the Required Action and associated Completion Time of Condition A is not met, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours and to MODE 4 within 12 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE REQUIREMENTS

SR 3.3.4.1

Performance of the CHANNEL CHECK once every 31 days ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying that the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

~~A channel check of the RTBs is inappropriate since their indication is local and any gross failure would be readily detected.~~ e

Q 3.3-22

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including indication and readability. If the channels are

INSERT SR 3.3.4.1

Q 3.3-22

(continued)

[illegible]

Insert for Q 3.3-22
Enclosure 5B page B 3.3-153
Insert SR 3.3.4.1

The CHANNEL CHECK for the RTB serves to verify that the indications correctly indicate the position of the RTB. A separate surveillance is not required since the TADOT of SR 3.3.1.4 verifies that the indications are functioning.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.4.3 (continued)

DC ALL-005

The Frequency of ~~[18]~~ 24 months is based upon operating experience and consistency with the typical industry refueling cycle.

~~SR 3.3.4.4~~

~~SR 3.3.4.4 is the performance of a TADOT every 18 months. This test should verify the OPERABILITY of the reactor trip breakers (RTBs) open and closed indication on the remote shutdown panel, by actuating the RTBs. The Frequency is based upon operating experience and consistency with the typical industry refueling outage.~~

~~NOTE: A surveillance of the reactor trip breaker OPERABILITY is not required as part of the SURVEILLANCE REQUIREMENT since a TRIP ACTUATING DEVICE OPERATIONAL TEST of the reactor trip breakers is performed as part of the SURVEILLANCE REQUIREMENT for TS 3.3.1.~~

Q 3.3-22

REFERENCES

1. 10 CFR 50, Appendix A, GDC 19 (associated with 1967 GDC 11 per FSAR Appendix 3.1A.)

DC ALL-002

And 3.3.1 Table 4.3-1 functional unit 21

CHANGE NUMBER	JUSTIFICATION
3.3-20	Not used. ~~This change adds note 2 on [Containment Radiation Level (High Range)] calibration in ITS SR [3.3.3.2] to be consistent with current TS Table [4.3-7 Note (2)]. This note is acceptable as it reflects the unique calibration requirements of these high range radiation monitors as defined in the current TS.~~ Q 3.3-20
3.3-21	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B). DC 3.3-Ed
3.3-22	Consistent with CTS [3.3.3.5], [~~RCP breaker indication is excluded from CHANNEL CHECKS and reactor trip breaker and~~ RCP breaker indications are excluded from] CHANNEL CALIBRATIONS in ITS SR 3.3.4.3 since these SRs have no meaning for ~~[these]~~ this function~~s~~. Q 3.3-22 DC ALL-002
3.3-23	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-24	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-25	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-26	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-27	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-28	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-29	~~{Not used}~~ 3.3-29 INSERT DC ALL-002
3.3-30	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-31	The current TS require the response times associated with the ~~[undervoltage and degraded voltage diesel generator start functions and the]~~ containment [purge and exhaust] isolation functions to be verified against the specific response time values contained in the ~~[FSAR]~~ CTS. The ITS is revised to match the current TS and the response time values are [moved to the FSAR per CN 01-35-LG]. As is done with the Reactor Trip System and the ESFAS instrumentation, this method is an appropriate way to control response times. [~~SR 3.3.5.4 and~~ SR 3.3.6.8] are added to require the response time verifications. DC ALL-002 DC 3.3-Ed DC ALL-002
3.3-32	Improved TS [3.3.6 ACTION A is modified by a Note and] Table 3.3.6-1 is changed to be consistent with current TS [3.3.2 Functional Unit 3.c and current TS 3.9.9]. Subfunctions [b, c and d] of Containment Radiation are stricken since only the gaseous [ ] channel provides the actuation function [and the bracketed setpoint is changed to reflect plant-specific requirements]. [The number of gaseous monitors required for CORE ALTERATIONS or during movement of irradiated fuel has been revised to one (either RM 44A or B) per the CTS].
3.3-33	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-34	This change adds an LCO 3.0.3 exception Note 1 to ITS 3.3.8 to reflect ~~Industry Traveler TSTF-36, Rev. 2.~~ current TS [3.3.3.1 ACTION c. and 3.9.1.2 ACTION c]. Q 3.3-34
3.3-35	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-36	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-21	ITS 3.3.3 was revised to reflect CTS 3.3.3.6. Containment Isolation Valve Position (and Notes) and Condensate Storage Tank Level were deleted. [Combined the power and source range neutron flux entries into a single neutron flux entry.] Consolidated the Thermocouple/Core Cooling Detection System entries. Changed number of required channels for RCS temperature to 2 for both hot and cold leg temperature. Changed Containment Pressure Wide Range to Containment Pressure Normal Range and added Refueling Water Storage Tank Level, Steam Line Pressure, and SG Water Level (Narrow Range) Functions as these are CTS requirements. Changed the required number of channels for SG Water Level (Wide Range) and AFW Flow Rate from 2 per SG to 1 per SG and added corresponding notes to ~~Conditions A~~ and C. AND 3.3.1 Table 4.3-1 Functional Unit 21	No, see CN 3.3-71.	No, see CN 3.3-70.	Yes (see Amendment No. 89)	Yes (see ULNRC-3023 dated 5-20-94 and Amendment No. 103 dated 10-20-95)
3.3-22	Consistent with CTS [3.3.3.5], [reactor trip breaker indication is excluded ~~from CHANNEL CHECKS and~~ from] CHANNEL CALIBRATIONS in ITS SR 3.3.4.3 since these SRs have no meaning for [this] function.	Yes	No, not in CTS.	Yes	Yes Q 3.3-22
3.3-23	CPSES-specific change that modifies ITS Surveillance Requirement 3.3.4.2 to include power circuits.	No	Yes	No	No
3.3-24	Changes ITS Table 3.3.4-1 to reflect CTS [3.3.3.5]: Deletes references to "controls" in the table (see also CN 3.3-94) and changes "Required Number of Functions" to "Required Channels" since the Table has been revised to include only instrumentation.	No, see CN 3.3-128.	Yes	Yes	Yes
3.3-25	Adds APPLICABILITY Note consistent with that found in ITS Table 3.3.1-1 (i.e., source range neutron flux is only required below the P-6 interlock). This is consistent with CTS Table 3.3-9.	No, see CN 3.3-84.	No, not in CTS.	Yes	Yes

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-29 **APPLICABILITY:** DC

REQUEST:

Functional Unit 7 is revised per the DCPP current plant design to incorporate the residual heat removal (RHR) pump trip from low refueling water storage tank (RWST) level. ACTION K is revised to require placing an inoperable channel in a tripped versus bypassed condition per existing plant design. A License Amendment Request has been submitted to incorporate these changes into the CTS.

Comment: Beyond Scope - - CTS LAR-97-10 request the addition of a RHR pump trip on low RWST level to ESFAS functions. PM action to issue amendment. DC action to provide an A-DOC for the change.

FLOG RESPONSE: LAR 97-10 is currently under NRC review and DCPP wishes to continue to pursue this change. The LAR is expected to be approved prior to the issuance of the ITS.

Per the request of the NRC reviewer at the September 15, 1998, meeting, the format of ACTION K has been revised from that submitted on January 9,1998 via the Errata (Reference 7). The revision incorporates CTS ACTION 36 that requires that if the channel cannot be placed in "cut-out" or cannot be repaired, that the unit be placed in MODE 3 in the following 6 hours and in MODE 5 in the following 30 hours. In addition, the LAR has been revised following negotiations with the NRC. The LAR now includes a quarterly COT and the restoration of the inoperable channel is required in 48 hours instead of 72 hours. ACTION K has been revised to incorporate these requirements. These latest revisions also affect the CTS and the ITS Bases.

ATTACHED PAGES:

Encl. 2	3/4 3-22a
Encl. 5A	3.3-33
Encl. 5B	B 3.3-119 (Insert K)

ACTION 19 - With ~~the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement~~ one channel inoperable, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 01-04-LG

ACTION 20 - With ~~the number of OPERABLE channels one less than the Total Number of Channels~~ one channel inoperable, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 02-08-M 01-43-A

a. The inoperable channel is placed in the tripped condition within 6 hours, ~~and~~ or

b. Be in MODE 3 in 12 hours and in MODE 4 in 18 hours. NOTE: The ~~Minimum Channels OPERABLE requirement is met; however, the~~ inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-04-LG 01-66-LS45 Q 3.3j

~~ACTION 20.1 - With one channel inoperable, STARTUP and/or POWER OPERATION may proceed~~
~~(new) provided the following conditions are satisfied:~~ 02-29-M DC ALL-002

~~a. The inoperable channel is placed in the bypassed condition within 6 hours, and the inoperable channel is returned to an OPERABLE status within 72 hours, or~~

~~b. Immediately enter 3.0.3.~~

~~NOTE: One additional channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1.~~

ACTION 20.2 - With one channel inoperable, STARTUP and/or POWER OPERATION may
(new) proceed provided the following conditions are satisfied: 02-08-M

a. The inoperable channel is placed in the tripped condition within 6 hours, or

b. Be in MODE 3 in 12 hours and in MODE 5 in 42 hours. NOTE: The inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. Q 3.3j

ACTION 36 - With the number of OPERABLE channels one less than the Required Channels, within 6 hours place the inoperable channel in cut-out and restore the inoperable channel to OPERABLE status within ~~72~~ 48 hours; or be in at least HOT STANDBY within the next 6 hours and be in COLD SHUTDOWN within the next 30 hours. DC ALL-002 DC 3.3-Ed

Q 3.3-29

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
I. One channel inoperable.	I.1 ----------NOTE------------ The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. ------------------------- Place channel in trip.	B 6 hours
	OR	
	I.2 ~~.1~~ Be in MODE ~~3~~2. e ~~AND~~ e ~~I.2.2 Be in MODE 3 for function 5.b.~~	12 hours 3.3-127 Q 3.3-127 ~~12 hours~~
J. ~~NOT USED~~ e ~~One Main Feedwater Pumps trip channel inoperable.~~ INSERT ACTION J	~~J.1 Restore channel to OPERABLE status.~~ ~~OR~~ ~~J.2 Be in MODE 3.~~	~~48 hours~~ 3.3-116 3.3-127 Q 3.3-127 ~~54 hours~~
K. ~~NOT USED~~ e ~~One channel inoperable.~~	~~K.1.1 NOTE One additional channel may be bypassed for up to 4 hours for surveillance testing.~~ ~~Place channel in bypass.~~ ~~OR~~	Q 3-3-29 ~~6 hours~~ ~~(continued)~~

INSERT ACTION K   Q 3.3-29

Insert for Q 3.3-29

Enclosure 5A page 3.3-33
Insert ACTION K

K. One channel inoperable	K.1.1 Place the channel in cut-out. <u>AND</u> K.1.2 Return the inoperable channel to an OPERABLE status. <u>OR</u> K.2.1 Be in MODE 3. <u>AND</u> K.2.2 Be in MODE 5.	6 hours 48 hours 54 hours 84 hours

BASES

ACTIONS

I.1 and I.2 (continued)

partial trip condition where one additional tripped channel will result in actuation. The 6 hour Completion Time is justified in Ref. 8. Failure to restore the inoperable channel it OPERABLE status or place it in the tripped condition withing 6 hours, requires the Unit to be placed in MODE 2 with in the following 6 hours. The allowed Completion time of 6 hours is reasonable, based on operating experience, to reach MODE 2 from full power conditions in an orderly manner without challenging unit systems. In MODE 2, this Function is no longer required OPERABLE.

The Required Actions are modified by a Note that allows the inoperable channel to be bypassed for up to 4 hours for surveillance testing of other channels. The 6 hours allowed to place the inoperable channel in the tripped condition, and the 4 hours allowed for a second channel to be in the bypassed condition for testing, are justified in Reference 8.

J.1 and J.2

INSERT ACTION J BASES Q 3.3-127

~~NOT USED~~

~~Condition J applies to the AFW pump start on trip of all MFW pumps.~~

~~This action addresses the train orientation of the SSPS for the auto start function of the AFW System on loss of all MFW pumps. The OPERABILITY of the AFW System must be assured by allowing automatic start of the AFW System pumps. If a channel is inoperable, 48 hours are allowed to return it to an OPERABLE status. If the function cannot be returned to an OPERABLE status, 6 hours are allowed to place the unit in MODE 3. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging unit systems. In MODE 3, the unit does not have any analyzed transients or conditions that require the explicit use of the protection function noted above. The allowance of 48 hours to return the train to an OPERABLE status is justified in Reference 8.~~

K.1.1, K.1.2

~~K.1~~, K.2.1 and K.2.2

INSERT K

~~Condition K applies to:~~

- ~~RWST Level - Low Low Coincident with Safety Injection, and~~
- ~~RWST Level - Low Low Coincident with Safety Injection and Coincident with Containment Sump Level - High.~~

(continued)

(3)

INSERT K

K.1.1, K.1.2

~~K.2~~ K.2.1 and K.2.2

Condition K applies to the Residual Heat Removal Pump Trip on RWST Level - Low. ~~which trips both RHR pumps.~~ Restoring the channel to OPERABLE status or placing the inoperable channel in the ~~bypass~~ cut-out condition within 6 hours is sufficient to ensure that the Function remains OPERABLE, and minimizes the time that the Function may be in a partial trip condition (assuming the inoperable channel has failed low). DC 3.5-Ed

Placing the out-of-service channel in ~~bypass will generate a high level signal on that channel, which will ensure that under no circumstances can a failure of an additional channel low prevent the RHR pumps from starting as the result of an SI signal~~ cut-out removes that channel from the trip logic, similar to a bypass function. This provides a ~~a second~~ one-out-of-two trip logic. The 6 hour Completion Time is justified in Reference 8. If the channel cannot be placed in the ~~bypass~~ cut-out condition within 6 hours 48 and returned to an OPERABLE status within ~~72~~ hours, the unit must ~~immediately enter LCO 3.0.3.~~ be brought to MODE 3 within ~~the following 6~~ 54 hours and MODE 5 within ~~the next 30~~ 84 hours DC 3.3-Ed. ~~The 72 hour Allowed Outage Time (AOT) is the same AOT that is allowed for one inoperable RHR pump. This comparison is reasonable because the possible consequences of losing a second level channel can, in the worst case, be no more severe than the loss of one RHR pump, and the probability of losing the level channel is even lower than that of losing an RHR pump.~~ The allowed Completion Times for shutdown are reasonable based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. In MODE 5, the unit does not have any analyzed transients or conditions that require the explicit use of the pump trip function noted above. Q 3.3-29

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-31 **APPLICABILITY:** DC, CP, CA, WC

REQUEST:

The current TS require the response times associated with the [undervoltage and degraded voltage diesel generator start functions and the] containment [ventilation] isolation functions to be verified against the specific response time values contained in the [TRM]. The ITS is revised to match the current TS and the response time values are [retained in the TRM]. As is done with the reactor trip system and the ESFAS instrumentation, this method is an appropriate way to control response times. [SR 3.3.5.4 and SR 3.3.6.8] are added to require the response time verifications.

Comment: {DC} 3.3-31 discusses response time. Clarify the use of this evaluation for the changes to ITS T3.3.6-1 footnotes (a) and (b).

{CP, CW} Revise SR 3.3.6.8 in response to disposition of 3.3-55 to delete reference to "required."

FLOG RESPONSE: For DCPP, JFD 3.3-79 should be applied to footnotes (a) and (b). Table 3.3.6-1 footnote (a) is further revised by JFD 3.3-79. Callaway and CPSES have addressed the second comment in their response to Comment Number Q 3.3-55. Note that the Callaway response to Comment Number Q 3.3-32 results in the re-numbering of ITS 3.3.6 surveillance requirements.

JFD 3.3-31 is also applicable to Wolf Creek as identified in the response to Comment Number Q 3.3-55.

ATTACHED PAGES:

Encl. 5A 3.3-68

PS

DC 3.3-Ed

Table 3.3.6-1 (page 1 of 1)
Containment Purge and Exhaust Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT (Remove Strike Out)	3.3-79
~~1.~~ ~~NOT USED~~ ~~Manual Initiation~~ (Remove Strike Out)	INSERT 3.3-77	~~2~~	~~SR 3.3.6.6~~	~~NA~~	3.3-77 Q 3.3-77
2. Automatic Actuation Logic and Actuation Relays	1, 2, 3, 4, 6, ~~and~~ (a) and (b)	2 trains 1	SR 3.3.6.2 SR 3.3.6.3 SR 3.3.6.5	NA	3.3-32 Q 3.3-32 PS
3. Containment Ventilation Exhaust Radiation	1, 2, 3, 4, ~~and~~ (a) and (b)				Q 3.3-79
a. Gaseous ~~A4~~ ~~A/B~~ /Particulate	~~1, 2, 3, 4,~~ ~~(a)~~	~~[1]~~ 2 1(b)	SR 3.3.6.1 SR 3.3.6.4 SR 3.3.6.7 ~~SR 3.3.6.8~~	~~≤ [2 x background]~~ Per ODCM	3.3-32 ~~3.3-31~~ Q 3.3-55
~~b. Particulate~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
~~c. Iodine~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
~~d. Area Radiation~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
4. Containment Isolation — Phase A	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 3.a., for all initiation functions and requirements.				Q 3.3-79

(a) during CORE ALTERATIONS ~~and~~ during movement of irradiated fuel assemblies within containment. 3.3-~~31~~ 79

~~(b) Only one monitor is required to be OPERABLE in MODE 6 or during movement of irradiated fuel assemblies within containment.~~ Q 3.3-31

(b)

3.3-~~31~~ 79

Q 3.3-32

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-32 **APPLICABILITY:** DC, WC, CA

REQUEST:

Improved TS [ ] Table 3.3.6-1 is changed to be consistent with current TS [3.3.2 Functional Unit 3.c and current TS 3.9.9]. Subfunctions [b-d] of containment radiation are stricken since only the gaseous [ ] channels provide the actuation function [and the bracketed setpoint is changed to reflect plant-specific requirements]. [The Actuation Logic was split to reflect the SSPS, with only MODE 1-4 Applicability, and BOP-ESFAS portions and associated SR requirements in the current TS.]

Comment: {DC} New CTS Action 37 is proposed. It is not clear how the new Action 37 relates to the functions (including Action 18 that it modifies), that deletion of the requirement to close purge valves have been justified or how the new Action 37 relates to the ITS markup.

{WC} The proposed setpoint shown as footnote (c) to ITS T 3.3.6-1 is not an acceptable limit. Revise Function 2.a (T3.3.6-1) applicability to include footnote (a). Adopt ISTS for Required A ction A.1 and Condition B trains/channels.

{CW} The proposed setpoint shown as footnote (c) to ITS T 3.3.6-1 represents a change to the CTS which is neither identified nor evaluated. Revise T3.3-6 to include particulate radiation monitors to be consistent with CTS. See 01-43A.

{WC, CW} Explain the design justification for not including Table 3.3.6-1 Note "a" in the applicability for actuation logic and relays. Specified logic must support radiation isolation function in the table. If the logic supports Phase A Isolation (T3.3.6-1, F5) then it should not be listed in this table. A single listing of the logic in ESFAS Table 3.3.2-1 is acceptable. Add new SR for BOP ESFAS actuation logic test with note that continuity check may be excluded.

{WC, CW} Add new SR for BOP ESFAS actuation logic test with note that continuity check may be excluded.

{WC} Adopt ISTS for Required Action A.1 and Condition B trains/channels.

FLOG RESPONSE: The first comment was accepted for DCPP at the September 15, 1998, meeting; however, Table 3.3.6-1 has been corrected to include the single REQUIRED CHANNEL for MODE 6 (a) and (b) applicabilities, and to delete the original inserted note (b).

In response to the second comment, Wolf Creek has revised ITS Table 3.3.6-1 Trip Setpoint footnote for the Containment Purge Isolation Function to include trip setpoint value from the CTS ### footnote. The details in the CTS footnote on the methodology for changing the setpoint has been moved to the ITS SR Bases.

In response to the third comment, Callaway personnel explained during meetings with NRC staff on September 16, 1998, that unlike other FLOG utilities, the containment gaseous and particulate radiation monitors covered by CTS LCO 3.3.3.1 as listed in CTS Table 3.3-6, serve only an RCS leakage detection function. These monitors have no containment purge isolation

[illegible]

[illegible]

function. The containment purge exhaust gaseous radiation monitors covered by ITS Table 3.3.6-1 are not covered in the Callaway CTS. Operability and surveillance requirements for these monitors are covered in FSAR Section 16.11.2.4 and Tables 16.11-5 and 16.11-6. The setpoint for these monitors is established by FSAR Table 11.5-3, as noted in Enclosure 1 (sort by ITS page 23 of 27). The wording of footnote (c) will be retained. Comment Number Q 1-43-A was resolved at the September meetings.

The fourth comment was resolved during a meeting with NRC staff on September 16, 1998, as reflected in Reference 5.

In response to the fifth comment, footnote (b) to ITS Table 3.3.6-1 dealing with the ACTUATION LOGIC TEST has been rewritten for Callaway and Wolf Creek as new SR 3.3.6.3. Other SRs have been re-numbered and corresponding Bases changes have been made.

In response to the sixth comment, WCGS has revised ITS 3.3.6 Required Action A.1 to reflect NUREG-1431. ITS 3.3.6 Condition B was revised in response to Comment Number Q 3.3-30.

ATTACHED PAGES:

Encl. 5A 3.3-68

Table 3.3.6-1 (page 1 of 1)
Containment Purge and Exhaust Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT	3.3-79 Remove Strike Out
~~1.~~ ~~NOT USED~~ ~~Manual Initiation~~ Remove StrikeOut	INSERT 3.3-77	~~2~~	~~SR 3.3.6.6~~	~~NA~~	3.3-77 Q 3.3-77
2. Automatic Actuation Logic and Actuation Relays	1, 2, 3, 4, 6, ~~and~~ (a) And (b)	2 trains 1	SR 3.3.6.2 SR 3.3.6.3 SR 3.3.6.5	NA	3.3-32 Q 3.3-32 PS
3. Containment Ventilation Exhaust Radiation	1, 2, 3, 4, ~~and~~ (a) And (b)				Q 3.3-79
a. Gaseous ~~A/B~~ /Particulate	~~1, 2, 3, 4,~~ ~~(a)~~	~~[1]~~ 2 1(b)	SR 3.3.6.1 SR 3.3.6.4 SR 3.3.6.7 ~~SR 3.3.6.8~~	~~≤ [2 x background]~~ Per ODCM	3.3-32 ~~3.3-31~~ Q 3.3-55
~~b. Particulate~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
~~c. Iodine~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
~~d. Area Radiation~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
4. Containment Isolation – Phase A	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 3.a., for all initiation functions and requirements.				Q 3.3-79

(a) during CORE ALTERATIONS ~~and~~ during movement of irradiated fuel assemblies within containment. 3.3-~~31~~ 79

~~(b) only one monitor is required to be OPERABLE in MODE 6 or during movement of irradiated fuel assemblies within containment.~~ Q 3.3-31

(b)

3.3-~~31~~ 79

Q 3.3-32

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-34 **APPLICABILITY:** CA, DC, WC

REQUEST:

Revisions to add an LCO 3.0.3 exception Note 1 to ITS 3.3.8 reflect industry traveler TSTF-36.

Comment: Reject - - The ITS proposes generic STS changes submitted in TSTF-36 Rev. 3 that are rejected by the staff.

FLOG RESPONSE: JFD 3.3-34 has been revised to delete the reference to TSTF-36 and replace it with a reference to the current TS. CTS 3.3.3.1 has an LCO 3.0.3 exception. ITS 3.3.8 contains the appropriate default for Required Actions and Completion Times not met, i.e., suspend irradiated fuel movement. LCO 3.0.3 would require a plant shutdown to MODE 5; therefore, LCO 3.0.3 should not apply to ITS 3.3.8.

ATTACHED PAGES:

Encl. 6A	3
Encl. 6B	6

And 3.3.1 Table 4.3-1 functional unit 21

CHANGE NUMBER	JUSTIFICATION
3.3-20	Not used ~~This change adds note 2 on [Containment Radiation Level (High Range)] calibration in ITS SR [3.3.3.2] to be consistent with current TS Table [4.3-7 Note (2)]. This note is acceptable as it reflects the unique calibration requirements of these high-range radiation monitors as defined in the current TS.~~ Q 3.3-20
3.3-21	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B). DC 3.3-Ed
3.3-22	Consistent with CTS [3.3.3.5], [~~RCP breaker indication is excluded from CHANNEL CHECKS and reactor trip breaker and~~ RCP breaker indications are excluded from] CHANNEL CALIBRATIONS in ITS SR 3.3.4.3 since these SRs have no meaning for ~~[these]~~ this function~~s~~. Q 3.3-22 DC ALL-002
3.3-23	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-24	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-25	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-26	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-27	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-28	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-29	~~{Not used}~~ 3.3-29 INSERT DC ALL-002
3.3-30	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-31	The current TS require the response times associated with the ~~[undervoltage and degraded voltage diesel generator start functions and the]~~ containment [purge and exhaust] isolation functions to be verified against the specific response time values contained in the ~~[FSAR]~~ CTS. The ITS is revised to match the current TS and the response time values are [moved to the FSAR per CN 01-35-LG]. As is done with the Reactor Trip System and the ESFAS instrumentation, this method is an appropriate way to control response times. [~~SR 3.3.5.4 and~~ SR 3.3.6.8] are added to require the response time verifications. DC ALL-002 DC 3.3-Ed DC ALL-002
3.3-32	Improved TS [3.3.6 ACTION A is modified by a Note and] Table 3.3.6-1 is changed to be consistent with current TS [3.3.2 Functional Unit 3.c and current TS 3.9.9]. Subfunctions [b, c and d] of Containment Radiation are stricken since only the gaseous [ ] channel provides the actuation function [and the bracketed setpoint is changed to reflect plant-specific requirements]. [The number of gaseous monitors required for CORE ALTERATIONS or during movement of irradiated fuel has been revised to one (either RM 44A or B) per the CTS].
3.3-33	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-34	This change adds an LCO 3.0.3 exception Note 1 to ITS 3.3.8 to reflect ~~Industry Traveler TSTF-36, Rev. 2.~~ current TS [3.3.3.1 ACTION c. and 3.9.1.2 ACTION c]. Q 3.3-34
3.3-35	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-36	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-31	The CTS require the response times associated with the [ ] containment [purge and exhaust] isolation function to be verified against the specific response time values contained in the [CTS]. The ITS is revised to match the CTS and the response time values are [moved to the FSAR]. As is done with the Reactor Trip System and the ESFAS instrumentation, this method is an appropriate way to control response times. [SR 3.3.6.8] is added to require the response time verifications.	Yes	Yes	No, will retain SRs in ITS 3.3.1 and 3.3.2 Tables.	Yes
3.3-32	ITS [3.3.6 ACTION A is modified by a Note and] Table 3.3.6-1 is changed to be consistent with CTS [3.3.2 Functional Unit 3.c and CTS 3.9.9]. Subfunctions [b, c, and d] of Containment Radiation are stricken since only the gaseous [ ] channels provide the actuation function [and the bracketed setpoint is changed to reflect plant- specific requirements]. [The number of gaseous monitors required for CORE ALTERATIONS or during movement of irradiated fuel has been revised to one (either RM 44A or B) per the CTS]	Yes	No, see CN 3.3-73.	Yes	Yes
3.3-33	ITS Table 3.3.7-1 is revised to reflect the plant design. The CREVS is actuated by radiation monitors located in the air intakes, by a containment isolation - Phase A signal, by a containment purge isolation signal, by a fuel building ventilation isolation signal, or manually. The bracketed setpoint is revised to reflect CTS Table 3.3-6 requirements.	No, see CN 3.3-102.	No, see CN 3.3-78.	Yes	Yes
3.3-34	Revisions to add an LCO 3.0.3 exception Note 1 to ITS 3.3.8 reflect ~~Industry Traveler TSTF-36, Rev. 2.~~ current TS [3.3.3.1 ACTION c. and 3.9.1.2 ACTION d.]	Yes	No, LCO does not apply.	Yes	Yes Q 3.3-34
3.3-35	ITS Table 3.3.8-1 is revised to reflect the plant design. Only the gaseous channels provide the actuation function. The bracketed setpoint is revised to reflect CTS Table 3.3-6 requirements.	No, not consistent with plant design.	No, LCO does not apply.	Yes	Yes

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-37 **APPLICABILITY:** DC, CP

REQUEST:

Several ITS Required Action Notes are modified to allow a channel to be placed in bypass for surveillance testing. [This change, incorporating bypass test instrumentation, was approved for CPSES through Amendments 47 and 33 for Units 1 and 2, respectively.]

Comment: Reject for CP application to 3.3.1 Action D.1& E.1 & M.1 -- The ITS proposes generic changes to the STS that are not included in an approved TSTF. The ISTS notes allowing bypass for testing are based on WCAP-10271. Provide a reference that shows staff approval of the proposed deviation from the ITS based on the accepted analysis of WCAP-10271.

FLOG RESPONSE: For DCPP, WCAP-10271 was approved via LA 61/60. During the development of the ITS, the portion of CTS ACTION 6 that allows the bypass of one additional channel was not included in the mark-up of ITS LCO 3.3.1 ACTIONS E.1 and M.1. The allowed bypass notes of ACTIONS M.1 and E.1 have been revised to reflect the CTS allowance of one additional channel and the FUNCTIONAL UNITS affected by the allowance. Refer also to Additional Information Number DC 3.3-003 and to the revised DOCs for 01-19-LS8, 01-45-M, 01-50-A, 01-49-LS18 and their applicable revised NSHC discussions for revisions related to the missed portion of the CTS note.

For CPSES, the changes in 3.3.1 Actions D.1, E.1 and M.1 have been confirmed to be consistent with the CTS. In verifying these actions, it was discovered that the note for the condition for Turbine Trip (condition P in the STS) had not been modified to reflect the bypass for testing allowed by the CTS. The conditions for Turbine Trip have been revised in the response to RAI 3.3-02. In addition to those changes, the note to new Required Action O.1 is revised to read "The inoperable channel or another channel may ..." to incorporate the bypass testing allowed by the CTS.

ATTACHED PAGES:

Encl. 5A	3.3-4 and 3.3-7
Encl. 5B	B 3.3-44 and 49

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. (continued) Delete Strike out	---------------NOTE--------------- ~~Only~~ Not required to be performed ~~when the~~ until 12 hours after ~~input from one~~ Power Range Neutron Flux ~~input~~ channel to QPTR is inoperable ~~and THERMAL POWER is > than 75% RTP~~.	Q 3.3-120 3.3-120
	D.2.2 Perform SR 3.2.4.2.	Once per 12 hours
	OR	
	D.3 Be in MODE 3.	12 hours Q 3.3-37 3.3-37
E. One channel inoperable.	---------------NOTE--------------- The inoperable channel (or one additional channel for FUNCTION 6, 7, 8b and 14,) may be bypassed for up to 4 hours for surveillance testing ~~and setpoint adjustment~~ of other channels. (For FUNCTIONS 2b, 3a and 3b only the inoperable channel may be bypassed for surveillance testing of other channels.)	3.3-40 Q 3.3-40
	E.1 Place channel in trip.	6 hours
	OR	
	E.2 Be in MODE 3.	12 hours
F. ~~THERMAL POWER > P-6 and < P-10.~~ One Intermediate Range Neutron Flux channel inoperable.	F.1 Reduce THERMAL POWER to < P-6.	~~2~~24 hours 3.3-95 3.3-107
	OR	
	F.2 Increase THERMAL POWER to > P-10.	~~2~~24 hours 3.3-107

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
L. Required Source Range Neutron Flux channel~~(s)~~ e inoperable.	L.1 Suspend operations involving positive reactivity additions. AND ~~L.2 Close unborated water source isolation valves.~~ AND L.~~3~~2 Perform SR 3.1.1.1.	Immediately B Q 3.3-123 ~~1 hour~~ 3.3-123 1 hour AND Once per 12 hours thereafter Q 3.3-37 3.3-37
M. One channel inoperable.	----------NOTE---------- The inoperable channel OR one additional channel for FUNCTIONS 8a, 9 and 10, may be bypassed for up to 4 hours for surveillance testing of other channels. For FUNCTIONS 11, 12 and 13, only the inoperable channel may be bypassed for surveillance testing of other channels. M.1 Place channel in trip. OR M.2 Reduce THERMAL POWER to < P-7.	3.3-37 Q 3.3-37 6 hours 12 hours

(continued)

BASES

ACTIONS (continued)

E.1 and E.2

Condition E applies to the following reactor trip Functions:

- Power Range Neutron Flux – Low;
- Overtemperature ΔT;
- Overpower ΔT;
- Power Range Neutron Flux – High Positive Rate;
- Power Range Neutron Flux – High Negative Rate;
- Pressurizer Pressure – High; and
- SG Water Level – Low Low; ~~and~~
- ~~SG Water Level – Low coincident with Steam Flow/Feedwater Flow Mismatch.~~

A known inoperable channel must be placed in the tripped condition within 6 hours. Placing the channel in the tripped condition results in a partial trip condition requiring only one-out-of-two logic for actuation of the two-out-of-three trips and one-out-of-three logic for actuation of the two-out-of-four trips. The 6 hours allowed to place the inoperable channel in the tripped condition is justified in Reference 7.

If the operable channel cannot be placed in the trip condition within the specified Completion Time, the unit must be placed in a MODE where these Functions are not required OPERABLE. An additional 6 hours is allowed to place the unit in MODE 3. Six hours is a reasonable time, based on operating experience, to place the unit in MODE 3 from full power in an orderly manner and without challenging unit systems. Q 3.3-37

The Required Actions have been modified by a Note that allows placing the inoperable channel OR ONE ADDITIONAL CHANNEL(S) in the bypassed condition for FUNCTIONS 6, 7, 8b AND 14 for up to 4 hours while performing routine surveillance testing of the other channels. ~~The Note also allows placing the inoperable channel in the bypass condition to allow setpoint adjustments of other channels when required to reduce the setpoint in accordance with other Technical Specifications.~~ Q 3.3-40 The NOTE allows only the inoperable channel for FUNCTIONS 2b, 3a and 3b to be bypassed for surveillance testing of other channels. Q 3.3-37 The 4 hour time limit is justified in Reference 7.

(continued)

BASES

ACTIONS

M.1 and M.2 (continued)

OPERABLE channel, and the low probability of occurrence of an event during this period that may require the protection afforded by the Functions associated with Condition M.

Q 3.3-37

The Required Actions have been modified by a Note that allows placing the inoperable channel (or one additional channel for FUNCTIONS 8a, 9 and 10) in the bypassed condition for up to 4 hours while performing routine ~~surveillance testing of the other channels.~~ The Note allows only the inoperable channel for FUNCTIONS 11, 12 and 13 to be bypassed for surveillance testing of other channels. The 4 hour time limit is justified in Reference 7. DC ALL-002

N.1 and N.2

NOT USED

~~Condition N applies to the Reactor Coolant Flow—Low (Single Loop) reactor trip Function. With one channel inoperable, the inoperable channel must be placed in trip within 6 hours. If the channel cannot be restored to OPERABLE status or the channel placed in trip within the 6 hours, then THERMAL POWER must be reduced below the P-8 setpoint within the next 4 hours. This places the unit in a MODE where the LCO is no longer applicable. This trip Function does not have to be OPERABLE below the P-8 setpoint because other RTS trip Functions provide core protection below the P-8 setpoint. The 6 hours allowed to restore the channel to OPERABLE status or place in trip and the 4 additional hours allowed to reduce THERMAL POWER to below the P-8 setpoint are justified in Reference 7.~~

~~The Required Actions have been modified by a Note that allows placing the inoperable channel in the bypassed condition for up to 4 hours while performing routine surveillance testing of the other channels. The 4 hour time limit is justified in Reference 7.~~

O.1 and O.2

~~NOT USED~~

~~Condition O applies to the RCP Breaker Position (Single Loop) reactor trip Function. There is one breaker position device per RCP breaker. With one channel inoperable, the inoperable channel must be restored to OPERABLE status within 6 hours. If the channel cannot be restored to OPERABLE status within the 6 hours, then THERMAL POWER must be reduced below the P-8 setpoint within the next 4 hours.~~

INSERT ACTION O Bases

Q 3.3-02

(continued)

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-40 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Add "and setpoint adjustment" to ITS 3.3.1 Condition E, similar to the Note for Condition D.

Comment: Reject - The ITS proposes generic changes to the STS that are not included in an approved TSTF. The justification is inadequate. Adequate justification would be the format is not usable, or the requirements represent unsafe practices or may result in an operational hardship.

FLOG RESPONSE: The FLOG withdraws the changes associated with JFD 3.3-40.

ATTACHED PAGES:

Encl. 2	3/4 3-5
Encl. 3A	5
Encl. 5A	3.3-4
Encl. 5B	B 3.3-44
Encl. 6A	4
Encl. 6B	7

TABLE 3.3-1 (Continued)

TABLE NOTATIONS

* When the ~~Reactor Trip System breakers are in the closed position and the~~ Control Rod Drive System is capable of rod withdrawal ~~or all~~ rods are not fully inserted. one or more (TR 3.3-006) — 01-55-LS39

~~#The provisions of Specification 3.0.4 are not applicable.~~ — 01-05-A

##Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.

###Below the P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint. Q 1-53

~~(new) *** Not required to be performed until 12 hours after input from one Power range Neutron Flux channel to QPTR is inoperable and THERMAL POWER is > 75% RTP.~~ — ~~01-53-A~~

(new) (f) With the RTB's open or the Rod Control System incapable of withdrawal. In this condition, source range function does not provide reactor trip but does provide indication. — 01-47-A

(new) (j) Above the P-9 (Power Range Neutron Flux) Interlock. — 01-48-LS4

(new) (k) Including any reactor trip bypass breakers that are racked in and closed for bypassing an RTB. — 01-14-A

(new) (d) Above the P-6 (Intermediate Range Neutron Flux) interlock. — 01-07-LS3

(new) (g) Above the P-7 (Low Power Reactor Trips Block) interlock. — 01-19-LS8

ACTION STATEMENTS

ACTION 1 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours. — 01-04-LG

ACTION 2 - With the number of OPERABLE channels one less than the ~~Total Number of~~ REQUIRED Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: — 01-43-A

a. The inoperable channel is placed in the tripped condition within 6 hours. — Q 3.3j — 01-66-LS45

b. ~~The Minimum Channels OPERABLE requirement is met; however,~~ (DC ALL-002) the inoperable channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~ and set point adjustment, and — 01-04-LG — 01-17-A

c. Either, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER ~~and the Power Range Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER~~ within 4 12 hours; or, if the power range neutron flux input to the QUADRANT POWER TILT RATIO is inoperable, the QPTR is monitored per Specification 4.2.4.2~~***~~ ~~when THERMAL POWER is greater than or equal to 50% of RATED THERMAL POWER~~. — 01-18-LS7 — ~~01-53-A~~ — 01-56-~~A~~ LS47 — Q 1-53 — Q 1-56

(new) Otherwise be in MODE 3 within 12 hours. — 01-18-LS7

(new) ACTION 2.1 With one Channel inoperable, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied (Note: The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels ~~per Specification 4.3.1.1~~ ~~and setpoint adjustment~~): — 01-06-LS2 — ~~01-17-A~~ — Q 3.3-40

a. Place the inoperable channel in tripped condition within 6 hours, or

b. Be in MODE 3 within 12 hours.

Q 3.3j

CHANGE NUMBER	NSHC	DESCRIPTION
01-13	LS6	[ACTION Statement [10] is revised to note that the 2 hour [train and] reactor trip breaker bypass allowance for [train or] breaker surveillance testing can also be used for maintenance. This change does not impact the conclusions of WCAP-10271-P-A, Supplement 2, Rev. 1 since there is no change to the bypass time. This change is consistent with Traveler TSTF-168.] ACTION Statement [10] is [also] revised to require restoration of an inoperable RTB within 1 hour or the plant must be in HOT STANDBY within the next 6 hours, consistent with NUREG-1431. This is less restrictive since an additional hour is provided for the transition to MODE 3.
01-14	A	In the ISTS Table 3.3.1-1, Function 20, the Reactor Trip Breaker (RTB) Undervoltage and Shunt Trip Mechanisms are separate from the RTB Functional Unit. The CTS have been revised to reflect these requirements. DC 3.3-Ed New [footnote (~~b~~ k) has] been added to the RTB Functional Unit to note that the same OPERABILITY requirements and ACTIONS apply to a bypass breaker if it is racked in and closed for bypassing an RTB. The bypass breakers were already handled in this fashion. ACTION [12] in CTS Table 3.3-1 has been revised accordingly. INSERT 1-14-A Q 1-14
01-15	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-16	LS40	The requirement to verify the setpoint during the quarterly TADOT for RCP Underfrequency [and RCP Undervoltage] is deleted, consistent with NUREG-1431.
01-17	A	Consistent with NUREG-1431, LCO 3.3.1 Required ACTION D Note, CTS Table 3.3-1 ACTION Statement 2c ~~and new ACTION Statement 2.1 have~~ has been modified by a Note that allows the bypass to be used for surveillance testing or setpoint adjustment. Setpoint adjustment can be performed at power and may be required by other Technical Specifications. The reason for placing the channel in bypass does not affect the impact of having the channel in bypass. Q 3.3-40

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. (continued) Delete Strike out	--------l-----NOTE--------------- ~~Only~~ Not required to be performed ~~when the~~ until ~~12 hours after input from one~~ Power Range Neutron Flux ~~input~~ channel to QPTR is inoperable ~~and THERMAL POWER is > than 75% RTP.~~ --------------------------------	Q 3.3-120 ~~3.3-120~~ l
	D.2.2 Perform SR 3.2.4.2.	Once per 12 hours
	OR	
	D.3 Be in MODE 3.	12 hours Q 3.3-37 3.3-37
E. One channel inoperable.	--------------NOTE---- or one additional channel for Function 6, 7, 8b and 14, The inoperable channel may be bypassed for up to 4 hours for surveillance testing ~~and setpoint adjustment~~ of other channels. For Functions 2b, 3a and 3b only the inoperable channel may be bypassed for surveillance testing of other channels. E.1 Place channel in trip.	~~3.3-40~~ l Q 3.3-40 6 hours
	OR	
	E.2 Be in MODE 3.	12 hours
F. ~~THERMAL POWER > P-6 and < P-10.~~ One Intermediate Range Neutron Flux channel inoperable.	F.1 Reduce THERMAL POWER to < P-6.	~~2~~24 hours 3.3-95 3.3-107
	OR	
	F.2 Increase THERMAL POWER to > P-10.	~~2~~24 hours 3.3-107

(continued)

BASES

ACTIONS (continued)

E.1 and E.2

Condition E applies to the following reactor trip Functions:

- Power Range Neutron Flux – Low;
- Overtemperature ΔT;
- Overpower ΔT;
- Power Range Neutron Flux – High Positive Rate;
- Power Range Neutron Flux – High Negative Rate;
- Pressurizer Pressure – High; and
- SG Water Level – Low Low; ~~and~~
- ~~SG Water Level – Low coincident with Steam Flow/Feedwater Flow Mismatch.~~

A known inoperable channel must be placed in the tripped condition within 6 hours. Placing the channel in the tripped condition results in a partial trip condition requiring only one-out-of-two logic for actuation of the two-out-of-three trips and one-out-of-three logic for actuation of the two-out-of-four trips. The 6 hours allowed to place the inoperable channel in the tripped condition is justified in Reference 7.

If the operable channel cannot be placed in the trip condition within the specified Completion Time, the unit must be placed in a MODE where these Functions are not required OPERABLE. An additional 6 hours is allowed to place the unit in MODE 3. Six hours is a reasonable time, based on operating experience, to place the unit in MODE 3 from full power in an orderly manner and without challenging unit systems.

Q3.3-37

OR ONE ADDITIONAL CHANNEL

FOR FUNCTIONS 6, 7, 8b AND 14

The Required Actions have been modified by a Note that allows placing the inoperable channel in the bypassed condition for up to 4 hours while performing routine surveillance testing of the other channels. ~~The Note also allows placing the inoperable channel in the bypass condition to allow setpoint adjustments of other channels when required to reduce the setpoint in accordance with other Technical Specifications.~~ The 4 hour time limit is justified in Reference 7.

Q3.3-40

The NOTE allows only the inoperable channel for FUNCTIONS 2b, 3a and 3b to be bypassed for surveillance testing of other channels.

Q3.3-37

(continued)

CHANGE NUMBER	JUSTIFICATION
3.3-37	Several ITS Required Action Notes are modified per CTS to allow a channel to be placed in bypass for surveillance testing. [ ]
3.3-38	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-39	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-40	~~This change adds "and setpoint adjustment" to ITS 3.3.1 Condition E, similar to the Note for Condition D. Setpoint adjustment is required by the Required Actions of other specifications. The clarity and consistency of the specification is enhanced by adding this note to Condition E, in the same manner as Condition D.~~ Not used. Q 3.3-40
3.3-41	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-42	This change deletes ITS 3.3.1 Condition N per Traveler TSTF-169. Condition M is appropriate for Function 10.a to prevent sequential entry into Condition N followed by M and exceeding the evaluated Completion Time in WCAP-10271-P-A, Supplement 2, Rev. 1. With this change, there is no need to list separate Functions 10.a and 10.b and combining the Functions eliminates Applicability questions similar to the Condition M vs. N concern above.
3.3-43	This change revises ITS 3.3.1 Condition R Notes 1 and 2 per Traveler TSTF-168. The 2-hour AOT should not be limited to only UVTA/STA maintenance. This is consistent with the current TS and is acceptable because the specific maintenance activity which requires that a reactor trip breaker be bypassed does not affect the impact of having the breaker bypassed. [ ]
3.3-44	This change revises ITS 3.3.1 Conditions S and T and ITS 3.3.2 Condition L ~~as well as the number of Required Channels in Tables 3.3.1-1 and 3.3.2-1~~ to reflect current TS ACTION Statements [8 and 21]. The Conditions apply to one or more channels [or trains, as Condition T applies to permissive P-7,] because the safety function is served with the interlock in the appropriate state for existing plant conditions. ~~The existing plant design only requires 3 of the 4 channels (2-out-of-3 for P-11) for these interlocks to be operable.~~ Q 3.3-44 Q 3.3-44
3.3-45	A new CONDITION ~~and SR are~~ is added for the current licensing basis required seismic trip. DC ALL-005
3.3-46	A new CONDITION and SR are added for the current licensing basis required Steam Generator level low-low time delay trip. These changes affect both ITS 3.3.1 and 3.3.2.
3.3-47	Note 2 of SR 3.3.1.2 is revised to limit the power increase to less than 30% per the current licensing basis before the SR is complete.
3.3-48	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-49	ITS SR 3.3.1.8 is revised to extend the conditional COT frequency for power and intermediate range channels from 4 hours after reducing power below P-10 to 12 hours, based on operating experience regarding the time needed to perform the COTs. It stands to reason that if 4 hours are allowed for 2 Source Range COTs, 12 hours should be allowed for 6 Intermediate Range and Power Range COTs. The SR continues to assure that the COTs are performed in a timely manner after the requisite plant conditions are entered. This change is consistent with Traveler ~~WOG-106~~ TSTF-242. Q 3.3-49
3.3-50	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-36	Revisions reflect revised BDMS setpoint in CTS.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes (CTS per OL Amendment No. 94 dated 3-7-95)
3.3-37	Several ITS Required Action Notes are modified to allow a channel to be placed in bypass for surveillance testing. [~~This change is consistent with the CTS.~~]	Yes	Yes	No, not in current design or TS.	No, not in current design or TS. DC ALL-002
3.3-38	The CPSES design uses the N-16 based overtemperature and overpower protective functions. Several changes to the setpoints, Required Actions and Surveillances of NUREG-1431 are required to maintain the current licensing basis.	No	Yes	No	No
3.3-39	ITS Table 3.3.7-1 is changed to be consistent with CTS Table 3.3-3. The Actuation Logic was split to reflect the SSPS, with only MODE 1-4 Applicability, and BOP-ESFAS portions and associated SR requirements in the CTS.	No, not in CTS.	No, not in CTS.	Yes	Yes
3.3-40	~~Add "and setpoint adjustment" to ITS 3.3.1 Condition E, similar to the Note for Condition D.~~ Not used	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA Q 3.3-40
3.3-41	ITS 3.3.1 Condition L is deleted to match the plant-specific design ~~and the CTS~~ for the Source Range Neutron Flux Function in MODES 3, 4, and 5 with the Rod Control System incapable of rod withdrawal and all rods fully inserted. Under these conditions, the source range instrumentation does not provide a Reactor Trip System Function. The source range channels provide only indication [and inadvertent boron dilution mitigation] when in this Applicability. Requirements related to the source range neutron flux channels in MODES 3, 4, and 5 when all rods are fully inserted and are not capable of being withdrawn have therefore been [moved to ITS 3.3.9. ~~Footnote (f) of ITS Table 3.3-1 is added to Function 5 and revised accordingly~~].	No, see CN 3.3-123.	Yes	Yes	Yes CA 3.3-016 TR 3.3-006

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-43 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Revise ITS 3.3.1 Condition R Notes 1 and 2 per traveler TSTF-168. The 2-hour AOT should not be limited to only UVTA/STA maintenance.

Comment: TSTF pending NRR review. Based on 8/14/98 meeting TSTF rejected based on WCAP-14333 which prohibits "maintenance bypass."

FLOG RESPONSE: TSTF-168 has been approved by the NRC. Therefore, the FLOG continues to pursue the changes associated with JFD 3.3-43.

ATTACHED PAGES:

Encl. 5A Traveler Status Sheet

INDUSTRY TRAVELERS APPLICABLE TO SECTION 3.3

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	NA	~~Not~~ NRC approved ~~as of traveler cut-off date.~~ changes Bases only TR 3.3-004
~~TSTF-36, Rev. 2~~	~~Incorporated~~	~~3.3-34~~	Q 3.3-34
TSTF-37, Rev. 1	Not Incorporated	NA	ITS 5.6.8 still addresses PAM reports. Sections after ITS 5.6.7 were not renumbered.
TSTF-51	Not Incorporated	NA	Requires plant-specific reanalysis to establish decay time dependence for fuel handling accident.
~~TSTF-91~~	~~Not Incorporated~~	~~NA~~	~~[Trip Setpoints and] Allowable Values for loss of voltage and degraded voltage will remain in the TS.~~ TR 3.3-005
TSTF-111, Rev. ~~2~~ 4	Incorporated	NA	Q 1-03
TSTF-135, Rev. 1	Partially Incorporated 3.3-90 3.3-91 3.3-106	3.3-41, 3.3-44, 3.3-93, 3.3-95, 3.3-122, 3.3-142	~~Traveler is too broad scoope in nature; should have been separate travelers. Portions of the traveler that significantly clarify operability requirements have been incorporated.~~ TR 3.3-006
TSTF-161, Rev. 1	Incorporated	3.3-79	Approved by NRC Q 3.3-79
TSTF-168	Incorporated	3.3-43	Approved by NRC. Q 3.3-43
TSTF-169	Incorporated	3.3-42	Approved by NRC. TR 3.3-003
~~WOG-106~~ TSTF-242	Incorporated	3.3-49	Q 3.3-49
~~Proposed Traveler~~ TSTF-246	Incorporated	3.3-107	~~WOG Mini-group Action Item #45~~ Q 3.3-107

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-44 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

Revise ITS 3.3.1 Conditions S and T and ITS 3.3.2 Condition L, as well as the number of Required Channels [ ] in Tables 3.3.1-1 and 3.3.2-1, to reflect current TS ACTION Statements [7 and 18].

Comment: [Reject] - The proposed ITS Conditions are presented as "one or more inoperable channels" which is a generic change to the STS. Provide a citation for the approved TSTF that this change is based on.

The number of applicable ITS channels is proposed to be one less than the CTS total channels. The proposed changes are not consistent with the STS. Revise ITS T3.3.1-1 to include the CTS 'total" channels as the ITS "required" channels.

The CTS markup changes the total number of channels for the P-11 interlock (CTS function 8a) from 3 channels to 2. This is counter to the format of the improved tech specs and this is a change to the CTS. All installed channels should be required to be operable and actions provided for any channel out of service. If the impact of a single inoperable channel is very low, the required action may be minimal. [See also comments to DOC 1-37A]

FLOG RESPONSE: In response to the first comment, the changes to ITS 3.3.1 Conditions S and T and to ITS 3.3.2 Condition L do not require an approved TSTF traveler. These changes are taken directly from the CTS ACTIONS which cover conditions with "less than the Minimum Number of Channels," not just one permissive channel inoperable. The ITS will not be changed.

In response to the second and third comments, the CTS markup to change the number of required channels has been deleted and all permissive P-8, P-9, P-10, and P-11 channels will be required OPERABLE in ITS Tables 3.3.1-1 and 3.3.2-1. DOC 1-37-A has been changed to DOC 1-37-M since this is a more restrictive change. Comment Number 1-37-A is also resolved by this response.

ATTACHED PAGES:

Encl. 2	3/4 3-4 and 3/4 3-20
Encl. 3A	11
Encl. 3B	10 of 31
Encl. 5A	3.3-10, 3.3-11, 3.3-25, 3.3-34 and 51
Encl. 5B	B 3.3-36, B 3.3-37, B 3.3-51, B 3.3-52
Encl. 6A	4
Encl. 6B	8

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

01-04-LG
DC ALL-002
01-43-A

FUNCTIONAL UNIT	~~TOTAL NO.~~ OF CHANNELS	REQUIRED ~~TO TRIP~~	~~MINIMUM CHANNELS OPERABLE~~	~~CHANNELS~~ APPLICABLE MODES	ACTION	
18. Safety Injection Input from ESF	2	~~1~~	~~2~~	1, 2	26	
19. Reactor Coolant Pump Breaker Position Trip above P-7	1/breaker	~~2~~	~~1/breaker~~	1[g]	9 6 (delete strikeout)	Q 1-49 01-49-LS18
20. Reactor Trip Breakers [k]	2 2	~~1~~ ~~1~~	~~2~~ ~~2~~	1, 2 3*, 4*, 5*	10, ~~12~~ 11	01-14-A
(new) Reactor Trip Breaker Undervoltage and Shunt Trip Mechanisms	1 each per RTB 1 each per RTB			1, 2 3*, 4*, 5*	12 11	01-14-A 01-14-A
21. Automatic Trip and Interlock Logic	2 2	~~1~~ ~~1~~	~~2~~ ~~2~~	1, 2 3*, 4*, 5*	26 11	
22. Reactor Trip System Interlocks						
a. Intermediate Range Neutron Flux, P-6	2	~~1~~	~~2~~	2##	8	01-51-LG 01-12-M
b. Low Power Reactor Trips Block, P-7 ~~P-10 Input~~ ~~P-13 Input~~	4 1 per train ~~2~~	~~2~~ ~~1~~	~~3~~ ~~2~~	1 ~~1~~	~~8#~~, 8.1 ~~8#~~	01-05-A 01-12-M
c. Power Range Neutron Flux, P-8	4 3 (Remove strike out)	~~2~~	~~3~~	1	~~8#~~, 8.1	Q 3.3-44 01-37 A M 01-05-A
d. Power Range Neutron Flux, P-9	4 3	~~2~~	~~3~~	1	~~8#~~, 8.1	01-37 A M 01-12-M 01-05-A
e. Power Range Neutron Flux, P-10	4 3	~~2~~	~~3~~	1, 2	8#	01-37 A M 01-05-A
f. Turbine Impulse Chamber Pressure, P-13 (Input to P-7)	2	~~1~~	~~2~~	1	~~8#~~, 8.1	01-05-A 01-12-M
23. Seismic Trip	3 directions (x,y,z) in 3 locations	~~2/3 locations one direction~~	~~2/3 locations all directions~~	1,2	13	

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

DC ALL-002

FUNCTIONAL UNIT	~~TOTAL NO. OF~~ REQUIRED CHANNELS	~~CHANNELS TO TRIP~~	~~MINIMUM CHANNELS OPERABLE~~	APPLICABLE MODES	ACTION	
						01-04-LG 01-43-A
7. Loss of Power (4.16 kV Emergency Bus Undervoltage)						02-11-A
a. First Level				1, 2, 3, 4**		02-36 M LS49
1) Diesel Start	1/Bus	~~1/Bus~~	~~1/Bus~~		16	Q 2-36
2) Initiation of Load Shed	2/Bus	~~2/Bus~~	~~2/Bus~~		~~16~~15	~~02-48-LS2~~ 8
b. Second Level				1, 2, 3, 4**		DC 3.3-001 02-36 M
1) Undervoltage Relays	2/Bus	~~2/Bus~~	~~2/Bus~~		~~16~~15	~~02-48-LS2~~ 8
2) Timers to Start Diesel	1/Bus	~~1/Bus~~	~~1/Bus~~		16	
3) Timers to Shed Load	1/Bus	~~1/Bus~~	~~1/Bus~~		16	
8. Engineered Safety Features Actuation System Interlocks						
a. Pressurizer Pressure, P-11	~~3~~ 2 Remove Strike Out	~~2~~	~~2~~	1, 2, 3	21	01-37 ~~A~~ M Q 3.3-44
b. DELETED						
c. Reactor Trip, P-4	2	~~2~~	~~2~~	1, 2, 3	23	
9. Residual Heat Removal pump trip ~~low~~ on RWST level-low	3	~~2~~	~~2~~	1, 2, 3, 4	~~20.1~~ 36	02-29-M DC ALL-002

CHANGE NUMBER	NSHC	DESCRIPTION
01-35	LG	This change moves response time limit tables to the updated FSAR per Generic Letter 93-08 and NUREG-1431.
01-36	~~M~~ LS53	~~This change adds a requirement to perform a Channel Calibration on Functional Unit 17 every 18 months. This change is consistent with NUREG-1431.~~ INSERT 1-36 DC 3.3-002
01-37	~~A~~ M	In the CTS, the "Minimum Channels OPERABLE" is one less than the "Total Number of Channels" for Functional [22.c] (P-8), [22.d](P-9), and [22.e] (P-10) in Table 3.3-1 and Functional Unit [8.a] (P-11) in Table [3.3-3]. For these Reactor Trip System and ESFAS interlocks, current ACTION Statements [8 and 21] for an inoperable channel are based on the "Minimum Channels OPERABLE" columns in Tables 3.3-1 and [3.3-3]. In the improved TS, only the "Total Number of Channels" information is retained in the LCO and that column is relabeled as the "Required Channels", as discussed in CN 1-04-LG and CN 1-43-A. Required ACTIONs in improved TS 3.3.1 Conditions S and T and improved TS 3.3.2 Condition L are tied to the Required Channels. ~~Therefore, the required permissive channels for these Functional Units are revised in the CTS.~~ INSERT 1-37-M Refer also to CN 01-51-LG for P-7. Q 3.3-44 Q 3.3-44
01-38	R	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-39	A	This change adds Note [5] to Functional Units [2.b,3, and 4] in CTS Table 4.3-1. Note [5] is currently listed against Functional Unit [2.a]. Testing methodology and the timing of that testing for the power range channels apply to all power range functions, not just power range-high. As such, this is an administrative change only. ITS SR 3.3.1.11 applies to all power range functions in a similar manner.
01-40	LS41	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-41	A	This change moves the first sentence of note (1) of Table 3.3-2 to ITS SR 3.3.1.16, and moves the rest of Note (1) to the Bases.
01-42	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

Insert for Q 3.3-44

Enclosure 3A page 11
Insert 1-37-M

Since the ITS Condition is entered with one permissive channel inoperable, whereas the CTS requires two channels inoperable, this is a more restrictive change.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-37 A M	In the CTS, the "Minimum Channels OPERABLE" is one less than the "Total Number of Channels" for Functional Units [22.c] (P-8), [22.d](P-9), and [22.e](P-10) in Table 3.3-1 and Functional Unit [8.a](P-11) in Table [3.3-3]. For these Reactor Trip System and ESFAS interlocks, current ACTION Statements [8 and 21] for an inoperable channel are based on the "Minimum Channels OPERABLE" columns in Tables 3.3-1 and [3.3-3]. In the improved TS, only the "Total Number of Channels" information is retained in the LCO and that column is relabeled as the "Required Channels", as discussed in CN 1-04-LG and CN 1-43-A. Required Actions in improved TS 3.3.1 Conditions S and T and improved TS 3.3.2 Condition L are tied to the Required Channels. ~~Therefore, the required permissive channels for these Functional Units are revised in the CTS.~~ INSERT 1-37-MC Refer also to CN 1-51-LG for P-7.	Yes	Yes	Yes	Yes Q 3.3-44 Q 3.3-44
01-38 R	The source range channel operability requirements in MODES 3, 4, and 5 when incapable of rod withdrawal are relocated to a licensee controlled document..	No, see CN 1-09-M.	Yes, relocated to the TRM.	Yes, relocated to Chapter 16.3 of the USAR.	No, see Cns 1-10-LS-32, 1-32-M, and 1-34-A.
01-39 A	This change adds Note [(5)] to Functional Units [2.b, 3, and 4] in CTS Table 4.3-1.	Yes	Yes	Yes	Yes
01-40 LS41	Surveillance intervals applied to Notes (3) and (6) of CTS Table 4.3-1 will be defined in terms of effective full power days (EFPD). However, a surveillance interval based on EFPD may be longer than one based on calendar days as specified in the CTS. Therefore, this change is considered less restrictive.	No, already in CTS.	No, already in CTS.	Yes	Yes Q 1-40
01-41 A	This DCPP-specific change moves the first sentence of note (1) of Table 3.3-2 to ITS SR 3.3.1.16, and moves the rest of note (1) to the Bases.	Yes	No	No	No

Insert for Q 3.3-44

Enclosure 3B page 10
Insert 1-37-M (a)

Since the ITS Condition is entered with one permissive channel inoperable, whereas the CTS requires two channels inoperable, this is a more restrictive change.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
R. One RTB train inoperable.	------------NOTES------------ 1. One train may be bypassed for up to 2 hours for surveillance testing or maintenance, provided the other train is OPERABLE. 2. One RTB may be bypassed only for ~~up to 2 hours~~the time required for performing maintenance on undervoltage or shunt trip mechanisms per CONDITION U, provided the other train is OPERABLE. ~~3. One RTB may be bypassed for up to 4 hours for logic testing per CONDITION Q, provided the other train is OPERABLE.~~ -------------------------------	3.3-43 ~~3.3-43~~ e 3.3-117 3.3-117 ~~3.3-03~~ e Q 3.3-03
	R.1 Restore train to OPERABLE status.	1 hour
	OR	
	R.2 Be in MODE 3.	7 hours
S. One or more ~~required~~ channels or trains inoperable. e	S.1 Verify interlock is in required state for existing unit conditions.	1 hour 3.3-44 Q 3.3-44
	OR	
	S.2 Be in MODE 3.	7 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
T. One or more ~~required~~ channels or trains inoperable.	T.1 Verify interlock is in required state for existing unit conditions.	1 hour 3.3-44 3.3-44
	OR	7 hours
	T.2 Be in MODE 2.	
U. One trip mechanism inoperable for one RTB.	U.1 Restore inoperable trip mechanism to OPERABLE status.	48 hours
	OR	
	U.2~~.1~~ Be in MODE 3.	54 hours 3.3-106
	~~AND~~	
	~~U.2.2 Open RTB.~~	~~55 hours~~
V. NOT USED ~~Two RTS trains inoperable.~~	V.1 ~~Enter LCO 3.0.3.~~	~~Immediately~~ 3.3-93

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
18. Reactor Trip System Interlocks						
a. Intermediate Range Neutron Flux, P-6	2(e)	2	S	SR 3.3.1.11 SR 3.3.1.13	8 ≥ ~~6~~E-11 amp	B DC ALL-005 ≥ 1E-10 amp 3.3-54
b. Low Power Reactor Trips Block, P-7	1	1 per train	T	~~NA~~ SR 3.3.1.17 ~~SR 3.3.1.11~~ ~~SR 3.3.1.13~~	NA	Q 3.3-54 NA ~~3.3-44~~ B-PS
c. Power Range Neutron Flux, P-8	1 Remove Strike Out	~~4~~	T	SR 3.3.1.11 SR 3.3.1.13	≤ [50.2] ~~37.1~~% RTP 36.2 Q 3.3-44	DC ALL-005 ≤ [48] 35% RTP ~~3.3-44~~ B-PS
d. Power Range Neutron Flux, P-9	1	~~4~~	T	SR 3.3.1.11 SR 3.3.1.13	≤ [52.2] ~~52.1~~% RTP 51.2	B DC ALL-005 ≤ 50% RTP B-PS
e. Power Range Neutron Flux, P-10	1,2	~~4~~	S	SR 3.3.1.11 SR 3.3.1.13	8.8 ≥ [7.8] ~~7.1~~% RTP and ≤ [12.2] ~~12.1~~% RTP 11.2	B ~~3.3-44~~ DC ALL-005 ≥ 10% RTP B B-PS PS
f. Turbine Impulse Chamber Pressure, P-13	1	2	T	~~[SR 3.3.1.1]~~ SR 3.3.1.10 SR 3.3.1.13	10.2 ≤ [12.2] ~~12.1~~% RTP turbine ~~power~~ impulse pressure equivalent	DC ALL-005 ≤ 10% RTP turbine ~~power~~ impulse pressure equivalent

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(e) Below the P-6 (Intermediate Range Neutron Flux) interlocks.

(j) Above the P-9 (Power Range Neutron Flux) interlock.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~K. (continued)~~	~~K.2.1 Be in MODE 3.~~	~~12 hours~~
	~~AND~~	
	~~K.2.2 Be in MODE 5.~~	~~42 hours~~
L. One or more ~~required~~ channels or trains inoperable.	L.1 Verify interlock is in required state for existing unit condition.	1 hour 3.3-44 Q 3.3-44
	OR	
	L.2.1 Be in MODE 3.	7 hours
	AND	
	L.2.2 Be in MODE 4.	13 hours
M. One or more SG water level-low-low Trip Time Delay circuit timers or the RCS Loop Delta-T channel input is inoperable.	INSERT NOTE K-M	
	M.1 Adjust the Trip Time Delay threshold power level for zero seconds time delay to 0% RTP.	6 hours 3.3-46 Q 3.3-46
	OR	
	M.2 Place the affected SG water level low-low channel in trip.	6 hours
	OR	
	M.3.1 Be in MODE 3.	12 hours
	AND	
	M.3.2 Be in MODE 4.	18 hours

Q 3.3-46

Table 3.3.2-1 (page ~~8~~11 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
7. NOT USED~~Automatic Switchover to Containment Sump (continued)~~						3.3-01
~~c.RWST Level - Low Low~~	~~1,2,3,4~~	4	~~K~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [15]%~~	~~≥ [18]%~~
~~Coincident with Safety Injection~~	~~Refer to Function 1 (Safety Injection) for all initiation functions and requirements.~~					
~~and~~						
~~Coincident with Containment Sump Level - High~~	~~1,2,3,4~~	4	~~K~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [30] in. above el. [703] ft~~	~~≥ [ ] in. above el. [ ]ft~~
8. ESFAS Interlocks						
a.Reactor Trip, P-4	1,2,3	1 per train, 2 trains	F	SR 3.3.2.11	NA	NA
		Remove Strike Out			Q 3.3-44	3.3-15 ~~3.3-44~~ B-PS
b.Pressurizer Pressure, P-11	1,2,3	~~2~~	L	~~SR 3.3.2.1~~ SR 3.3.2.5 SR 3.3.2.9	≤ ~~[1996]~~ ~~1920.5~~ 1917.5 psig	DC ALL-005 ≤ ~~[ ]~~ 1915 psig
						3.3-01
c.NOT USED~~T_{avg} - Low Low, P-12~~	~~1,2,3~~	~~[1] per loop~~	~~L~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~	~~≥ [550.6]°F~~	~~≥ [553]°F~~

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

c. Power Range Neutron Flux, P-8 (continued)

4 Q 3.3-44

power, the reactor trip on low flow in any loop (2-out-of-4 coincidence) is automatically blocked.

The LCO requires four channels of Power Range Neutron Flux, P-8 interlock to be OPERABLE in MODE 1. DC ALL-002

In MODE 1, a loss of flow in one RCS loop could result in DNB conditions, so the Power Range Neutron Flux, P-8 interlock must be OPERABLE. In MODE 2, 3, 4, 5, or 6, this Function does not have to be OPERABLE because the core is not producing sufficient power to be concerned about DNB conditions.

d. Power Range Neutron Flux, P-9

The Power Range Neutron Flux, P-9 interlock is actuated at ~~approximately~~ less than or equal to 50% power as determined by two-out-of-four NIS power range detectors. The LCO requirement for this Function ensures that the Turbine Trip—Low ~~Fluid~~ Auto Stop Oil Pressure and Turbine Trip—Turbine Stop Valve Closure reactor trips are enabled above the P-9 setpoint. Above the P-9 setpoint, a turbine trip ~~will~~ may challenge the pressurizer PORVs due to the mismatch between reator power and ~~cause a load rejection beyond the capacity~~ capacities of the Steam Dump and Reactor Control Systems. A reactor trip is automatically initiated on a turbine trip when it is above the P-9 setpoint, to minimize the transient on the reactor. Q 3.3-44

remove strike out

The LCO requires ~~four~~ three channels of Power Range Neutron Flux, P-9 interlock to be OPERABLE in MODE 1 (2-out-of-3 4 coincidence).

~~In MODE 1, a turbine trip could cause a load rejection beyond the capacity of the Steam Dump System, so the Power Range Neutron Flux interlock must be OPERABLE.~~ In MODE 2, 3, 4, 5, or 6, this Function does not have to be OPERABLE because the reactor is not at a power level sufficient to have a significant load rejection~~beyond the capacity capacities of the Steam Dump and Reactor Control Systems.~~

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

e. Power Range Neutron Flux, P-10

The Power Range Neutron Flux, P-10 interlock is actuated at ~~approximately~~ 10% power, as determined by two-out-of-four NIS power range detectors. If power level falls below 10% RTP on 3 of 4 channels, the nuclear instrument trips will be automatically unblocked. The LCO requirement for the P-10 interlock ensures that the following Functions are performed:

- on increasing power, the P-10 interlock allows the operator to manually block the Intermediate Range Neutron Flux reactor trip. Note that blocking the reactor trip also blocks the signal to prevent automatic and manual rod withdrawal;
- on increasing power, the P-10 interlock allows the operator to manually block the Power Range Neutron Flux−Low reactor trip; DC 3.3Ed
- on increasing power, the P-10 interlock automatically provides a back up signal to block the Source Range Neutron Flux ~~reactor trip, and also to de-energize the NIS source range~~ detectors high voltage and allows manual block of the IR rod stop; remove strike out DC AU-002
- the P-10 interlock provides one of the two inputs to the P-7 interlock; ~~and~~ add strike out
- on decreasing power, the P-10 interlock automatically enables the Power Range Neutron Flux−Low reactor trip and the Intermediate Range Neutron Flux reactor trip (and rod stop)~~.~~ ; and
- on decreasing power, the P-10 interlock automatically defeats the block of the source range neutron flux trip and with P-6 energizes the source range high voltage.

The LCO requires ~~four~~three channels of Power Range Neutron Flux, P-10 interlock to be OPERABLE in MODE 1 or 2 (2-out of-~~3~~ 4). Q 3.3-44

OPERABILITY in MODE 1 ensures the Function is available to perform its decreasing power Functions in the event of a reactor shutdown. This Function must be OPERABLE in MODE 2 to ensure that core protection is provided during a

(continued)

BASES

ACTIONS

Q.1 and Q.2 (continued)

next 6 hours. The Completion Time of 6 hours (Required Action Q.1) is reasonable considering that in this Condition, the remaining OPERABLE train is adequate to perform the safety function and given the low probability of an event during this interval. The Completion Time of 6 hours (Required Action Q.2) is reasonable, based on operating experience, to reach MODE 3 from full power in an orderly manner and without challenging unit systems.

The Required Actions have been modified by a Note that allows bypassing one train up to ~~[4]~~ hours for surveillance testing, provided the other train is OPERABLE.

R.1 and R.2

Condition R applies to the RTBs in MODES 1 and 2. These actions address the train orientation of the RTS for the RTBs. With one train inoperable, 1 hour is allowed to restore the train to OPERABLE status or the unit must be placed in MODE 3 within the next 6 hours. The Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power in an orderly manner and without challenging unit systems. The 1 hour and 6 hour Completion Times are equal to the time allowed by LCO 3.0.3 for shutdown actions in the event of a complete loss of RTS Function. Placing the unit in MODE 3 results in Condition C entry if one RTB train is inoperable ~~removes the requirement for this particular Function~~. Remove strike out TR 3.3-006 Q 3.3-03

The Required Actions have been modified by ~~two~~ three Notes. Note 1 allows one ~~channel~~ RTB to be bypassed for up to 2 hours for surveillance testing or maintenance, provided the other ~~channel~~ train is OPERABLE. Note 2 allows one RTB to be bypassed only for the time required for performing ~~for up to 2 hours for~~ maintenance on undervoltage or shunt trip mechanisms per Condition U if the other RTB train is OPERABLE. ~~Note 3 allows one RTB to be bypassed for up to 4 hours for logic surveillance testing per Condition Q provided the other train is OPERABLE.~~ Q 3.3-03 The ~~2 hour~~ time limits are ~~is~~ justified in Reference 7 ~~5 and 13~~.

S.1 and S.2

Condition S applies to the P-6 and P-10 interlocks. With one or more ~~required~~ channels inoperable ~~for one out of two or two out of four coincidence logic~~, the associated interlock must be verified by observation of the associated permissive annunciator window to be in its required state for the existing unit condition Q 3.3-44

(continued)

BASES

ACTIONS

S.1 and S.2 (continued)

within 1 hour or the unit must be placed in MODE 3 within the next 6 hours. Verifying the interlock status manually accomplishes the interlock's Function. The Completion Time of 1 hour is based on operating experience and the minimum amount of time allowed for manual operator actions. The Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power in an orderly manner and without challenging unit systems. The 1 hour and 6 hour Completion Times are equal to the time allowed by LCO 3.0.3 for shutdown actions in the event of a complete loss of RTS Function.

T.1 and T.2

add strike out + DC ALL-002

Condition T applies to the P-7, P-8, P-9, and P-13 interlocks. With one or more ~~required~~ channel(s) inoperable ~~for one out of two or two out of four coincidence logic~~, the associated interlock must be verified by observation of the associated permissive annunciator window to be in its required state for the existing unit condition within 1 hour or the unit must be placed in MODE 2 within the next 6 hours. These actions are conservative for the case where power level is being raised. Verifying the interlock status manually accomplishes the interlock's Function. The Completion Time of 1 hour is based on operating experience and the minimum amount of time allowed for manual operator actions. The Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 2 from full power in an orderly manner and without challenging unit systems. Q 3.3-44

U.1~~, U.2.1,~~ and U.2~~.2~~

Condition U applies to the RTB Undervoltage and Shunt Trip Mechanisms, or diverse trip features, in MODES 1 and 2. With one of the diverse trip features inoperable, it must be restored to an OPERABLE status within 48 hours or the unit must be placed in a MODE where the requirement does not apply. This is accomplished by placing the unit in MODE 3 within the next 6 hours (54 hours total time) ~~followed by opening the RTBs in 1 additional hour (55 hours total time)~~. The Completion Time of 6 hours is a reasonable time, based on operating experience, to reach MODE 3 from full power in an orderly manner and without challenging unit systems.

(continued)

CHANGE NUMBER	JUSTIFICATION
3.3-37	Several ITS Required Action Notes are modified per CTS to allow a channel to be placed in bypass for surveillance testing. [ ]
3.3-38	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-39	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-40	~~This change adds "and setpoint adjustment" to ITS 3.3.1 Condition E, similar to the Note for Condition D. Setpoint adjustment is required by the Required Actions of other specifications. The clarity and consistency of the specification is enhanced by adding this note to Condition E, in the same manner as Condition D.~~ Not used. e Q 3.3-40
3.3-41	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-42	This change deletes ITS 3.3.1 Condition N per Traveler TSTF-169. Condition M is appropriate for Function 10.a to prevent sequential entry into Condition N followed by M and exceeding the evaluated Completion Time in WCAP-10271-P-A, Supplement 2, Rev. 1. With this change, there is no need to list separate Functions 10.a and 10.b and combining the Functions eliminates Applicability questions similar to the Condition M vs. N concern above.
3.3-43	This change revises ITS 3.3.1 Condition R Notes 1 and 2 per Traveler TSTF-168. The 2-hour AOT should not be limited to only UVTA/STA maintenance. This is consistent with the current TS and is acceptable because the specific maintenance activity which requires that a reactor trip breaker be bypassed does not affect the impact of having the breaker bypassed. [ ]
3.3-44	This change revises ITS 3.3.1 Conditions S and T and ITS 3.3.2 Condition L ~~as well as the number of Required Channels in Tables 3.3.1-1 and 3.3.2-1~~ to reflect current TS ACTION Statements [8 and 21]. The Conditions apply to one or more channels [or trains, as Condition T applies to permissive P-7,] because the safety function is served with the interlock in the appropriate state for existing plant conditions. ~~The existing plant design only requires 3 of the 4 channels (2-out-of-3 for P-11) for these interlocks to be operable.~~ e Q 3.3-44 e Q 3.3-44
3.3-45	A new CONDITION ~~and SR are~~ is added for the current licensing basis required seismic trip. DC ALL-005
3.3-46	A new CONDITION and SR are added for the current licensing basis required Steam Generator level low-low time delay trip. These changes affect both ITS 3.3.1 and 3.3.2.
3.3-47	Note 2 of SR 3.3.1.2 is revised to limit the power increase to less than 30% per the current licensing basis before the SR is complete.
3.3-48	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-49	ITS SR 3.3.1.8 is revised to extend the conditional COT frequency for power and intermediate range channels from 4 hours after reducing power below P-10 to 12 hours, based on operating experience regarding the time needed to perform the COTs. It stands to reason that if 4 hours are allowed for 2 Source Range COTs, 12 hours should be allowed for 6 Intermediate Range and Power Range COTs. The SR continues to assure that the COTs are performed in a timely manner after the requisite plant conditions are entered. This change is consistent with Traveler ~~WOG-106~~ e TSTF-242 Q 3.3-49
3.3-50	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-42	Delete ITS 3.3.1 Condition N and combine Functions 10.a and 10.b per Traveler TSTF-169.	Yes	Yes	Yes	Yes
3.3-43	Revise ITS 3.3.1 Condition R Notes 1 and 2 per Traveler TSTF-168. The 2-hour AOT should not be limited to only UVTA/STA maintenance.	Yes	Yes	Yes	Yes
3.3-44	Revise ITS 3.3.1 Conditions S and T and ITS 3.3.2 Condition L e ~~as well as the number of Required Channels [or trains as Condition T applies to permissive P-7] in Tables 3.3.1-1 and 3.3.2-1,~~ to reflect CTS ACTION Statements [8 and 20].	Yes	Yes	Yes	Yes Q 3.3-44
3.3-45	A new CONDITION ~~and SR are~~ IS added for the current licensing basis required seismic trip.	Yes	No, not in CTS.	No, not in CTS.	No, not in CTS. DC ALL-005
3.3-46	A new CONDITION and SR are added for the current licensing basis required Steam Generator level low-low time delay trip. These changes affect both ITS 3.3.1 and 3.3.2.	Yes	No, not in CTS.	No, not in CTS.	No, not in CTS.
3.3-47	Note 2 of SR 3.3.1.2 is revised to limit the power increase to less than 30% per the current licensing basis before the SR is complete.	Yes	No, not in CTS.	No, not in CTS.	No, not in CTS.
3.3-48	ITS SR 3.3.1.7 has a NOTE that provides a four hour delay in the requirement to perform the Surveillance for source range instrumentation when entering MODE 3 from MODE 2. Wolf Creek has deleted this NOTE in accordance with current Surveillance Requirements and the revisions made in ITS Table 3.3-1. The requirements for this Surveillance will be maintained by SR 3.3.1.8 in Table 3.3.1-1 for each applicable Function. SR 3.3.1.8 has been structured to cover NI Functions specified in ITS Table 3.3.1-1 and SR 3.3.1.7 has been structured to cover all other Functions. This similar to how the NUREG has structured SR 3.3.1.10 and SR 3.3.1. 11.	No	No	Yes	No

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-46 **APPLICABILITY:** DC

REQUEST:

A new CONDITION and SR are added for the current licensing basis required steam generator level low-low time delay trip. These changes affect both ITS 3.3.1 and 3.3.2.

Comment: Should action X.2 read "Place the affected SG-low low level channel(s) in trip"?

It may be desirable to include a 3.0.3 alternative in the Required Actions for Condition W and Condition X.

ITS Table 3.3.1-1, Function 14.b (Steam Generator Water Level-Low Low, > 50% power time delay) shows the LCO applicable only in MODE 1. The CTS table shows the LCO applicable in MODE 1 and 2. This is a change from the CTS that is neither identified in the CTS markup nor discussed in the DOC.

Condition X covers only inoperability of the SG-low low level trip time delays. It should cover the entire DT function.

For consistency with the iSTS format the trip time delay footnote (k) should be moved to the Trip Setpoint and Allowable Value columns. for the RCS Loop delta T equivalent power# 50% function.

Since the time delay function is required to be operable down through Mode 3 (CTS - Mode 3 ###) for the RCS Loop delta T at equivalent powers # 50% RTP function, then the applicability for the time delay in ITS should also extend down through Mode 3. Provide a revised applicability for ITS function 6.d.1.

The CTS allows operation to continue under the equivalent of ITS action M.1 if one or more channels is inoperable, but the ITS limits this to one channel inoperable. Is the application of the more restrictive requirement here intentional? (Note the CTS limits the use of action M.2 to the condition of one channel inoperable.

There is no "LCO 3.0.3 equivalent" action for Condition M. Is this intentional ?

FLOG RESPONSE: Comment 1): The words "water level" and "channel(s)" have been inserted into RTS CONDITION X to read as requested.

Comments 2) & 8): An LCO 3.0.3 alternative has been added to both ACTIONS W and X for RTS and ACTION M for ESFAS, as suggested by the reviewer. This is consistent with other NUREG-1431 ACTIONS and the intent of LCO 3.0.3. The LCO 3.0.3 alternative will require MODE 3 entry within 12 hours for ACTIONS W and X and MODE 4 entry within 18 hours for ACTION M if the effected channels cannot be tripped. This action is more restrictive by 1 hour than LCO 3.0.3 and a new M-DOC 01-67 M has been created to describe this revision to CTS ACTIONS 29 and 13.

[illegible]

[illegible]

Comment 3): Functional Unit 14.b is revised to indicate that the LCO is applicable in MODES 1 and 2, to be consistent with the CTS.

Comment 4): ACTION X (RTS) has been revised to be applicable to the entire Trip Time Delay and RCS delta-T equivalent power input function, not just the time delays, which is consistent with the design and the intent of the CTS. CTS ACTION 6 (RTS) and ACTION 20 (ESF) notes, (which are included in ITS RTS ACTION E and ESFAS ACTION D) are incorporated into ACTION X and M respectively. These revisions, although not explicitly stated in the CTS, are inferred from the ACTIONS applicable to SG level. These notes, which have been modified for clarification due to the multiple applicabilities of ACTIONS X and M, allow a tripped SG channel or one additional channel to be bypassed for up to 4 hours for testing. The Bases for ITS ACTION X (RTS) and ACTION M (ESFAS) have been revised to clarify the action required for an inoperable Trip Time Delay or RCS delta-T equivalent power input and to incorporate the above information. For additional information, FSAR 7.2.1.1.1.5 describes this function and the interaction between the SG level trip, the trip delay and the RCS delta-T equivalent power input.

Comment 5): Footnote (k) and (l) have been moved to the Trip Set point and Allowable Value columns.

Comment 6): The CTS implied MODE 3 Applicability for the Trip Time Delay at equivalent powers ≤ 50% RTP for CTS ESF function 6.d has been revised to extend through MODE 3. In addition, the Table 3.3.1-1 and 3.3.2-1 presentation has been revised to clarify the applicability and to make each table consistent with the other.

Comment 7): ITS ACTION M has been revised to apply to one or more inoperable SG water level-low-low Trip Time Delay timers and the associated input from the RCS Delta-T equivalent power channels. The allowance to trip only a single inoperable SG channel or adjust the time delay threshold power level of one or more inoperable Trip Time Delay channels is clarified in the Bases for RTS ACTION X and ESFAS ACTION M.

ATTACHED PAGES:

Encl. 2	3/4 3-7 and 3/4-22
Encl. 3A	14
Encl. 3B	14 of 31
Encl. 5A	3.3-12, 3.3-22, 3.3-34, 3.3-47 and 3.3-48
Encl. 5B	B 3.3-53 and B 3.3-122

Remove strikeout

~~ACTION 9 - With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within the next 6 hours.~~ or reduce Thermal Power to < P-7 in 12 hours. Note that the inoperable channel may be bypassed for up to 4 hours for surveillance testing. 01-49-LS18 Q1-49

ACTION 10 - With the number of ~~channels~~trains OPERABLE one less than the ~~Minimum Total Number of~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable train to operable status within 1 hour, or be in at least HOT STANDBY within ~~6~~ 7 hours; however, one ~~channel~~train may be bypassed for up to 2 hours for maintenance or surveillance testing ~~per Specification 4.3.1.1~~ provided the other channel is OPERABLE. 01-04-LG 01-66-LS45 Q3.3j 01-13-LS6 TR 3.3-006

initiate action to fully insert all rods AND

ACTION 11 - With the number of OPERABLE channels or trains one less than the ~~Minimum~~Required Channels or trains ~~OPERABLE requirement~~, restore the inoperable channel or train to OPERABLE status within 48 hours or ~~open the Reactor trip breakers~~ within the next hour ~~fully insert all rods and~~ place the Rod control System in a condition incapable of rod withdrawal. 01-04-LG 01-55-LS39

ACTION 12 - With one of the diverse trip features (Undervoltage or shunt trip attachment) inoperable, restore it to OPERABLE status within 48 hours or ~~declare the breaker inoperable and apply ACTION 10~~ be in at least HOT STANDBY within the next 6 hours. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status. 01-14-A

ACTION 13 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 01-43-A

DC 3.3 Ed

~~a. The Minimum Channels OPERABLE requirement is met, and~~ 01-04-LG

a~~b.~~ The inoperable channel is placed in the tripped conditions within 6 hours; however, the inoperable channel may be bypassed for up to 72 hours for surveillance testing ~~per Specification 4.3.1.1~~ or for performing maintenance, OR 01-66-LS45 Q3.3j 01-67-M Q3.3-46

c. Be in MODE 3 in 12 hours.

ACTION 26 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable Channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~ provided the other channel is OPERABLE. 01-04-LG 01-66-LS45 Q3.3j

ACTION 27 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected RCS Loop Delta-T channel(s), either: 01-43-A

a. The Trip Time Delay threshold power level for zero seconds time delay is adjusted to 0% RTP, or 01-43-A

b. With the number of OPERABLE channels one less than the ~~Total Number of~~Required Channels, the affected Steam Generator Water Level-Low-Low channels are placed in the tripped condition.

Remove Strike Out

~~ACTION 28 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:~~ ~~01-50-A~~ 01-19-LS8

~~a. The inoperable channel is placed in the trip condition within 6 hours, and~~

~~b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1.~~, or

c. Reduce Thermal Power to < P-7 within 12 hours.

DC 3.3-003

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

ACTION 21 - With the number of OPERABLE channels less than the ~~Minimum Number of~~ Required Channels OPERABLE, within 1 hour determine ~~by observation of the associated permissive annunciator window(s)~~ that the interlock is in its required state for the existing plant condition, or ~~apply Specification 3.0.3~~ be in MODE 3 in 7 hours and MODE 4 in 13 hours. 01-04-LG 02-14-M 01-52-LG

ACTION 22 - With the number of OPERABLE Channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~ provided the other channel is OPERABLE. 01-04-LG

01-66-LS95 Q3.3.j

ACTION 23 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours. 01-43-A

ACTION 24 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated pump or valve inoperable and take the ACTION required by Specification 3.7.1.5 or 3.7.1.2 as applicable. 01-43-A

ACTION 25 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~ provided the other channel is OPERABLE. 01-04-LG

01-66-LS45 Q 3.3.j

ACTION 29 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected RCS Loop Delta-T channel(s), either: 01-43-A

a. The Trip Time Delay threshold power level for zero seconds time delay is adjusted to 0% RTP, or

DC ALL-002

Delete Bold & Strike out

b. With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, the affected Steam Generator Water Level-Low-Low channels are placed in the tripped condition, OR 01-43-A

c. Be in MODE 3 in 12 hours AND MODE 4 in 18 hours

01-67-M Q 3.3-46

ACTION 35 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: ~~01-43-A~~

a. The inoperable channel is placed in the trip condition within 6 hours, ~~and~~ or be in MODE 2 in 12 hours. 02-08-M

Q 2-08 02-56-LS48

b. ~~The Minimum Channels OPERABLE requirement is met; however~~, The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels ~~per Specification 4.3.2.1~~. 01-04-LG

01-66-LS45 Q3.3j

ACTION 35.2 - With the number of OPERABLE channels one less than the Required Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 02-08-M

CHANGE NUMBER	NSHC	DESCRIPTION
01-57	LG	CTS Table 3.3-1 Functional Units [12.a and 12.b] are combined per Traveler TSTF-169. The Required Channels, ACTION Statement, and Surveillance Requirements are the same for both Functional Units. The only difference between the two is the APPLICABILITY which could lead to entry into ACTION Statement 6 for Functional Unit [12.a], followed by a power reduction below P-8 exiting the APPLICABILITY and required ACTIONs for that Functional Unit, and subsequent re-entry into ACTION Statement 6 for Functional Unit [12.b]. This would involve an improper cumulative AOT of 12 hours before tripping an inoperable channel, beyond that evaluated in WCAP-10271 and its Supplements. The relationships between these Functional Units and permissives P-7 and P-8 are moved to the ITS 3.3.1 Bases.
01-58	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-59	LS46	~~Not Used.~~ INSERT 1-59-LS59 Q 1-51
01-60		Not Used.
01-61	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-01	A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.
02-02	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-04	LG	The requirements stipulated in ACTIONS a and b are moved to ITS Table 3.3.2-1, with explicit direction contained in the ITS ACTIONS Bases.
02-05	M	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 2-05 Q 2-05 (3.3)
02-06	LS33	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-62	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-65	A	
INSERT 1-63-A		Q 1-AGE
INSERT 1-64-A		Q 1-23
INSERT 1-66-LS45		Q 3.3 j
INSERT 1-67-M		Q 3.3-46
INSERT 1-68-LS54		DC 3.3-004
INSERT 1-69-M		DC 3.3-004

Insert for Q 3.3-46

Enclosure 3A page 14
Insert 1-67-M

01-67	M	CTS ACTION Statements 13 and 29 (for CTS RTS Functional Unit 23, Seismic Trip, and CTS ESF Functional Unit 6.c.b, Auxiliary Feedwater SG Water Level-Low Low with a trip time delay determined by RCS Loop Δ-T equivalent power input) have been expanded to specify additional actions and options if an inoperable channel is not placed in the tripped condition within the specified time period. In the CTS, these ACTIONS would have required an entry into LCO 3.0.3, which would necessitate that the plant initiate a shutdown within the next 1 hour and be in MODE 3 within the next 6 hours for ACTION 13 and in MODE 4 within the next 12 hours for ACTION 29. In the ITS, the requirement in the time to exit APPLICABILITY is more restrictive by one hour than CTS LCO 3.0.3.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-58 A	The proposed change would allow Reactor Trip System and ESFAS sensor response time testing to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements," or other similar methodologies. This change is consistent with traveler TSTF-111, which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing.	No, see CN 1-03-LS1.	Yes	No, see CN 1-03-LS1.	No, see CN 1-03-LS1.
01-59	~~Not Used.~~ INSERT 1-59-LS46(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 1-51
01-60	Not Used.	N/A	N/A	N/A	N/A
01-61 M	If the requirements of current CPSES ACTION Statement 6 are not met, LCO 3.0.3 would be entered. In accordance with the ISTS, this ACTION Statement is revised to state that, if the ACTION requirements are not met, the plant must be taken below the P-7 interlock setpoint within the next 6 hours.	No, see CN-01-19-LS8.	Yes	No, see CN-01-19-LS8.	No, see CN-01-19-LS8.
02-01 A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.	Yes	Yes	Yes	Yes
02-02 A	CTS ACTION b.1, Equation 2.2-1, and the values for Total Allowance (TA), Z, and Sensor Error (S) are deleted, consistent with NUREG-1431 Rev. 1.	No, not in CTS.	No, not in CTS.	Yes	Yes
02-03 LG	The Engineered Safety Features Actuation System Instrumentation Trip Setpoints are moved to a licensee controlled document.	No, retained in ITS.	Yes, moved to Bases.	Yes, moved to ITS 3.3.2 Bases.	Yes, moved to ITS 3.3.2 Bases.

INSERT 1-63-A(a)
INSERT 1-64-A(a)
INSERT 1-66-LS45(a)
INSERT 1-67-M(a)
INSERT 1-68-LS54(a)
INSERT 1-69-M(a)

Q 1-AGEN
Q 1-23
Q 3.3.i
Q 3.3-46
DC 3.3-004
DC 3.3-004

Insert for Q 3.3-46

Enclosure 3B page 14
Insert 1-67-Ma

01-67 M	This DCPP-specific change revises CTS ACTIONS 13 and 29 to provide specific shutdown requirements to exit Applicability, in lieu of applying CTS LCO 3.0.3. This change is more restrictive by one hour than the CTS.	Yes	No	No	No

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
W. One channel inoperable	------------NOTE------------ The inoperable channel may be bypassed for up to 72 hours for surveillance or maintenance. ---------------------------- W.1 Place channel in trip OR W.2. Be in MODE 3	6 hours 3.3-45 12 hours Q 3.3-46
X. One or more SG low-low water level Trip Time Delay circuit delay timers inoperable. or RCS loop Delta-T equivalent power input channel(s)	INSERT NOTE X-M X.1 Adjust the Trip Time Delay threshold power level for 0 seconds time delay to 0% RTP. OR X.2. Place the affected SG water level low ~~level~~ channels in trip. OR X.3. Be in MODE 3	6 hours 3.3-46 Q 3.3-46 6 hours 12 hours Q 3.3-46

Insert for Q 3.3-46

Enclosure 5A page 3.3-12 and 3.3-34
Insert NOTE X-M

--------------NOTE--------------
The inoperable SG channel
or one additional channel
may be bypassed for up to
4 hours for surveillance
testing of other channels.

Table 3.3.1-1 (page 4 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
						3.3-103
11. Reactor Coolant Pump (RCP) Breaker Position	1(g)	1 per RCP	M	SR 3.3.1.14	NA	NA
~~a. Single Loop~~	~~1(h)~~	~~1 per RCP~~	~~O~~	~~SR 3.3.1.14~~	~~NA~~	~~NA~~
~~b. Two Loops~~	~~1(i)~~	~~1 per RCP~~	~~M~~	~~SR 3.3.1.14~~	~~NA~~	~~NA~~
					7817	B-PS DC ALL-005
12. Undervoltage RCPs	1(g)	~~[3]~~ 2 per bus	M	SR 3.3.1.9 SR 3.3.1.10 ~~SR 3.3.1.16~~	9 ≥ ~~[4760]~~ ~~7730~~ V each bus	≥ ~~[4830]~~ 8050 V each bus
				3.3-55 Q 3.3-55		B-PS B
13. Underfrequency RCPs	1(g)	3 per bus	M	SR 3.3.1.9 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[57.1]~~ 53.9 Hz each bus	≥ ~~[57.5]~~ 54.0 Hz each bus
						B-PS
14. Steam Generator (SG) Water Level – Low Low a Trip Time Delay (TTD) from	1,2	~~[4~~ 3 per SG~~]~~	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[30.4]~~ 9 ~~6.8%~~ 7.0	≥ ~~[32.3]~~ 7.2% DC ALL-005 3.3-46
9 ~~Coincident~~ with:					TTD	TTD Q3.3-46
9 ~~a)~~ RCS Loop ΔT equivalent to power ~~≤ 50% RTP with a time delay (TD)~~.	1,2	4 (1/loop)	X	SR 3.3.1.7 SR 3.3.1.10	For RCS loop ΔT variable input ≤ ~~[1.5]~~ 50.7% RTP ≤ (1.01) TD (Note 3) and for RCS loop ΔT variable input > ~~51.5~~ 50.7% RTP TTD=0	For RCS loop ΔT variable input ≤ 50% ≤ TD (Note 3) and for RCS loop ΔT variable input > 50% RTP TTD=0
~~OR~~						
9 ~~b) RCS Loop ΔT equivalent to power > 50% RTP with no time delay.~~	~~1~~	~~4(1/loop)~~	~~X~~	~~SR 3.3.1.7 SR 3.3.1.10~~		

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~K. (continued)~~	~~K.2.1 Be in MODE 3.~~ AND ~~K.2.2 Be in MODE 5.~~	~~12 hours~~ ~~42 hours~~
L. One ~~or more~~ ~~required~~ channel~~s or trains~~ inoperable.	L.1 Verify interlock is in required state for existing unit condition. OR L.2.1 Be in MODE 3. AND L.2.2 Be in MODE 4.	1 hour 3.3-44 Q 3.3-44 7 hours 13 hours
M. One or more SG water level-low-low, Trip Time Delay circuit timers or the RCS Loop Delta-T channels inoperable. input, in, it	INSERT NOTE X-M M.1 Adjust the Trip Time Delay threshold power level for zero seconds time delay to 0% RTP. OR M.2 Place the affected SG water level low-low channel in trip. OR M.3.1 Be in MODE 3. AND M.3.2 Be in MODE 4.	6 hours 3.3-46 Q 3.3-46 6 hours 12 hours 18 hours Q 3.3-46

Insert for Q 3.3-46

Enclosure 5A page 3.3-12 and 3.3-34
Insert NOTE X-M

-------------NOTE-------------
The inoperable SG channel or one additional channel may be bypassed for up to 4 hours for surveillance testing of other channels.

Table 3.3.2-1 (page ~~6~~7 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
5. Turbine Trip and Feedwater Isolation						PS
a. Automatic Actuation Logic and Actuation Relays	1,2(j), ~~[3](j)~~	2 trains	H ~~[G]~~	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
b. SG Water Level – High High (P-14)	1,2(j), ~~[3](j)~~	3 per SG	J ~~[D]~~	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[84.2]~~ ~~75.9%~~ 75.2	B B-PS Q 3.3-127 ≤ ~~[82.4]~~ 75% DC ALL-005
c. Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					DC ALL-001
6. Auxiliary Feedwater						3.3-58
a. Manual	1,2,3	1 sw/pp	N	SR 3.3.2.8 13	NA	3.3-139 NA
~~a~~ b. Automatic Actuation Logic and Actuation Relays (Solid State Protection System)	1,2,3	2 trains	G	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA 3.3-55 Q 3.3-55
c. NOT USED ~~b. Automatic Actuation Logic and Actuation Relays (Balance of Plant ESFAS)~~	~~1,2,3~~	~~2 trains~~	~~G~~	~~SR 3.3.2.3~~	~~NA~~	~~NA~~ 3.3-01
~~c~~d. SG Water Level – Low Low	1,2,3 (k)	3 per SG	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[30.4]~~ ~~6.8%~~ 7.0	DC ALL-005 B-PS B 3.3-46 Q 3.3-46 ≥ ~~[32.2]~~ 7.2%

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT ~~(a)~~
~~Coincident with:~~						3.3-46 Q3.3-46
~~2)~~ ~~1~~ RCS Loop ΔT Equivalent to Power ~~≤ 50% RTP~~ e	~~1, 2~~ e	~~4(1/loop)~~	~~D~~	~~SR 3.3.2.5 SR 3.3.2.9~~ e	for RCS Loop ΔT Variable input ≤ ~~51.5%~~ 50.7% RTP DC ALL-005	for RCS Loop ΔT variable input ≤ 50% RTP Q3.3-46
With a Trip ~~Time~~ Delay (TTD) from	1, 2, 3	4 (1/loop)	M	SR 3.3.2.5 SR 3.3.2.9	TTD ≤ (1.01) TD (l) (k) and for	TTD ≤ TD (l) (k) and for
~~Or~~ e						
~~2) RCS Loop ΔT Equivalent to Power > 50% RTP~~ e	~~1, 2~~	~~4(1/loop)~~	~~D~~	~~SR 3.3.2.5 SR 3.3.2.9~~	RCS Loop ΔT variable input > ~~51.5%~~ 50.7% RTP DC ALL-005	RCS Loop ΔT variable input > 50% RTP
~~With no time delay~~	~~1, 2~~	~~4 (1/loop)~~	~~M~~	~~SR 3.3.2.5 SR 3.3.2.9~~	TTD = 0	TTD = 0 Q3.3-46

Move row

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ EC

(j) Except when all MFIVs, MFRVs, and associated bypass valves are closed and de-activated or isolated by a closed manual valve. B

(k) For Mode 3, the Trip Time Delay associated with the Steam Generator Water Level-Low-Low channel must be less than or equal to 464.1 seconds. 3.3-46

(l) Steam Generator Water Level Low-Low Trip Time Delay 3.3-46

$TD = B1(P)^3 + B2(P)^2 + B3(P) + B4$

Where: P = RCS Loop ΔT Equivalent to Power (%RTP), P ≤ 50% RTP

TD = Time delay for Steam Generator Water Level Low-Low (in seconds)

B1 = -0.007128

B2 = +0.8099

B3 = -31.40

B4 = +464.1

BASES

ACTIONS

U.1, ~~U.2.1,~~ and U.2~~.2~~ (continued)

one or more TR 3.3-006

With the ~~RTBs open and the~~ unit in MODE 3, Condition C is entered if the inoperable trip mechanism has not been restored and the Rod Control System is capable of rod withdrawal or ~~all~~ rods are not fully inserted. ~~this trip Function is no longer required to be OPERABLE.~~ The affected RTB shall not be bypassed while one of the diverse features is inoperable except for the time required to perform maintenance to restore the inoperable trip mechanism to OPERABLE status, consistent with Ref. 13. ~~one of the diverse features. The allowable time for performing maintenance of the diverse features is 2 hours for the reasons stated under Condition R.~~

The Completion Time of 48 hours for Required Action U.1 is reasonable considering that in this Condition there is one remaining diverse feature for the affected RTB, and one OPERABLE RTB capable of performing the safety function and given the low probability of an event occurring during this interval.

V.1

NOT USED
~~With two RTS trains inoperable, no automatic capability is available to shut down the reactor, and immediate plant shutdown in accordance with LCO 3.0.3 is required.~~

W.1 And W.2

Q 3.3-46

Condition W applies to the Seismic Trip, in MODES 1 and 2. With one of the channels inoperable, START UP and/or POWER OPERATION may proceed provided the inoperable channel is placed in trip within the next 6 hours. If a direction is inoperable, then the channel must be considered inoperable. Placing the channel in the tripped condition creates a partial trip condition requiring only one out of two logic for actuation for that particular location.

The Required Actions have been modified by a Note that allows placing the inoperable channel in the bypassed condition for up to 72 hours while performing routine surveillance testing of the other channels. The allowed 72 hour bypass time is reasonable based on the low probability of an event occurring while the channel is bypassed and on the time required to perform the required surveillance testing.

X.1, X.2 and X.3

Q 3.3-46

~~Condition X applies to the Trip Time Delay (TTD) circuitry for the SFG Water Level-Low Low trip function when THERMAL POWER is less than or equal to 50% RTP in MODES 1 and 2. With one or more TTD circuitry delay timers inoperable, adjust the threshold power level for no time delay to 0% RTP, or place the affected SFG low low level in trip. The Completion Time of 6 hours is based on Reference 7.~~

e

INSERT ACTION X BASES

(continued)

[illegible]

[illegible]

Insert for Q 3.3-46

Enclosure 5B page B 3.3-53
Insert ACTION X Bases

Condition X applies to the Trip Time Delay (TTD) circuitry for the SG Water Level-Low Low trip function in MODES 1 and 2. With one or more TTD circuitry delay timers inoperable or the RSC delta-T equivalent power input inoperable, 6 hours are allowed to adjust the threshold power level for no time delay to 0% RTP. This sets the TTD timer to zero seconds and effectively removes its input from the SG water level circuit. If the TTD timer cannot be set to zero seconds for a single SG water level control, then the affected SG water level low-low channel must be placed in trip. Only one SG water level low-low channel can be placed in trip since the trip coincidence is two-out-of-three. The Completion Time of 6 hours is reasonable considering the nature of these functions and the low probability of an event occurring during this interval as justified in Reference 7.

If the TTD threshold power for no time delay cannot be adjusted to 0% RTP (zero seconds time delay) or the single SG water level channel cannot be placed in the trip condition within the specified Completion Time, the unit must be placed in a MODE where these Functions are not required OPERABLE. The 12 hours allowed to place the unit in MODE 3 is a reasonable time, based on operating experience, to place the unit in MODE 3 from full power in an orderly manner and without challenging unit systems.

The Required Actions have been modified by a Note that allows placing the SG water level channel or one additional channel in the bypassed condition for up to 4 hours while performing routine surveillance testing of the other channels.

BASES

ACTIONS

L.1, L.2.1 and L.2.2 (continued)

LCO 3.0.3 to initiate shutdown actions in the event of a complete loss of ESFAS function. If the interlock is not in the required state (or placed in the required state) for the existing unit condition, the unit must be placed in MODE 3 within the next 6 hours and MODE 4 within the following 6 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. Placing the unit in MODE 4 removes all requirements for OPERABILITY of these interlocks.

~~M.1 or M.2~~ INSERT ACTION M Bases Q 3.3-46

~~Condition M applies to the Trip Time Delay (TTD) for the SG low-low water level actuation of AFW pumps. With one or more TTD circuitry delay timers inoperable, 6 hours are allowed to adjust the threshold power level for no time delay to 0% RTP or to place the affected SG water level low-low channel in trip. The specified Completion Time is reasonable considering the nature of these Functions, the available redundancy, and the low probability of an event occurring during this interval. If the TTD threshold power level cannot be adjusted or the affected SG water level low-low channel cannot be placed in trip, the unit must be placed in MODE 3 within the next 6 hours and MODE 4 within the following 6 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power in an orderly manner and without challenging unit systems. In MODE 4, the unit does not have any analyzed transients or conditions that require the explicit use of the protection function noted above.~~

N.1 or N.2 and N.2.2

Condition N applies to:

- Manual Initiation of Steam Line Isolation; and
- Manual Initiation of Auxiliary Feedwater.

If a channel is inoperable, 48 hours is allowed to return the channel to an OPERABLE status. The specified Completion Time is reasonable considering the nature of these functions, the available redundancy, and the low probability of an event occurring during this interval. If the Function cannot be returned to OPERABLE status, the associated pump or valve shall be declared inoperable immediately and the REQUIRED ACTION of 3.7.5 or 3.7.2 as applicable complied with immediately.

INSERT SB-O & P Q 3.3-66

(continued)

[illegible]

[illegible]

Insert for Q 3.3-46

Enclosure 5B page B 3.3-122
Insert ACTION M Bases

M.1, M.2, M.3.1 and M.3.2

Condition M applies to the Trip Time Delay (TTD) circuitry for the SG Water Level-Low Low actuation of the turbine-driven AFW pump and is required to be OPERABLE in MODES 1, 2 and 3. With one or more TTD circuitry delay timers inoperable or the RSC delta-T equivalent power input inoperable, 6 hours are allowed to adjust the threshold power level for no time delay to 0% RTP. This sets the TTD timer to zero seconds and effectively removes its input from the SG water level circuit. If the TTD timer cannot be set to zero seconds for a single SG water level control, then the affected SG water level low-low channel must be placed in trip. Only one SG water level low-low channel can be placed in trip since the trip coincidence is two-out-of-three. The Completion Time of 6 hours is reasonable considering the nature of these functions and the low probability of an event occurring during this interval as justified in Reference 7.

If the TTD threshold power for no time delay cannot be adjusted to 0% RTP (zero seconds time delay) or the single SG water level channel cannot be placed in the trip condition within the specified Completion Time, the unit must be placed in MODE 4 where these Functions are not required OPERABLE. A completion time of 12 hours is allowed to place the unit in MODE 3 and 18 hours for MODE 4. These completion times are reasonable time, based on operating experience, to place the unit in MODE 4 from full power in an orderly manner and without challenging unit systems. In MODE 4 there are no analyzed transients requiring the use of the turbine-driven AFW pump.

The Required Actions have been modified by a Note that allows placing the SG water level channel or one additional channel in the bypassed condition for up to 4 hours while performing routine surveillance testing of the other channels.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-49 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS SR 3.3.1.8 is revised to extend the conditional COT frequency for power and intermediate range channels from 4 hours after reducing power below P-10 to 12 hours, based on operating experience regarding the time needed to perform the COTs. It stands to reason that if 4 hours are allowed for 2 Source Range COTs, 12 hours should be allowed for 6 Intermediate Range and Power Range COTs.

Comment: Reject - The ITS proposes generic changes to the STS that are not included in an approved TSTF. The justification is inadequate. Adequate justification would be the format is not usable, or the requirements represent unsafe practices or may result in an operational hardship. In support of a safety or operational hardship argument provide data to support the statement that operating experience shows 12 hours is required to perform the SR.

Additional justification required.

FLOG RESPONSE: These conditional COTs on the power range neutron flux – low and intermediate range neutron flux channels are not in the current TS. The current TS requires only that COTs be performed on these Functions prior to startup. In order for the FLOG members to assume these more restrictive surveillance requirements, as discussed in DOC 1-22-M, sufficient time must be allowed for performing the COTs with consideration given to the fact they are performed sequentially, not simultaneously, since the COTs are performed with the channel in trip. WOG-106, currently under NRC review as TSTF-242, was originated by Callaway based on a review of several years of work history records indicating that nuclear instrumentation system COTs require 1-2 hours to perform. These COTs are governed by continuous use procedures that require independent verification; four hours is insufficient time to perform the six COTs. Given the FLOG members' willingness to assume more restrictive requirements not found in the current TS, the allowed time should account for current plant practices. Twelve hours is a reasonable time period for performing six COTs on these channels.

ATTACHED PAGES:

Encl. 3A	7
Encl. 5A	Traveler Status Sheet
Encl. 6A	4

CHANGE NUMBER	NSHC	DESCRIPTION
01-21	A	The monthly and quarterly channel calibrations associated with Notes (3), (4), and (6) of CTS Table 4.3-1 have been moved from the Power Range Neutron Flux-High Setpoint Function to the Overtemperature [ΔT] Function. This change clarifies the relationship of these surveillances to the f_1 (ΔI) penalty portion of the Overtemperature [ΔT] Function. The primary purpose of these surveillances is to verify correct f_1 (ΔI) input to Overtemperature [ΔT]. Although these surveillances affect all power range neutron flux channels, and appropriate action must be taken for any affected power range neutron flux channel, this change groups the surveillances with the most appropriate reactor trip function for OPERABILITY concerns. M Q 1-25 [ ] The applicable portions of CTS Table 4.3-1 Notes (3) and (6) are incorporated directly into ITS SR 3.3.1.3 and SR 3.3.1.6, as discussed in CN 1-25-~~A~~. Note (4) has been deleted from the daily, monthly, and quarterly surveillances associated with Notes (2), (3), and (6) of CTS Table 4.3-1 since these surveillances are not CHANNEL CALIBRATIONS, rather they are comparisons and adjustments as needed. These changes are consistent with NUREG-1431.
01-22	M	Quarterly COTs have been added to CTS Table 4.3-1 for the Power Range Neutron Flux-Low and Intermediate Range Neutron Flux trip functions in the event extended operation within their APPLICABILITY (i.e., MODE 1 below P-10 and MODE 2) takes place. The CTS only require a COT prior to startup for these functions. New Note [(19)] has been added to require that the new quarterly COT be performed within 12 hours after reducing power below P-10 for the power range and intermediate range instrumentation (P-10 is the dividing point marking the APPLICABILITY for these trip functions), if not performed within the previous 92 days. [In addition,new Note (20) has been added] such that the P-6 and P-10 interlocks are verified to be in their required state during all COTs on the Power Range Neutron Flux-Low and Intermediate Range Neutron Flux trip functions. These changes are consistent with NUREG-1431 and travelers ~~WOG-406~~ TSTF-242 Q 3.3-49
01-23	A	This change adds new Note [(22)] to CTS Table 4.3-1 and new Note [(~~56~~)] to CTS Table 4.3-2 that explicitly require the ~~18-month~~ calibrations to include verifications of affected time constants, consistent with NUREG-1431. DC ALL-002 DC 3.3-Ed

INDUSTRY TRAVELERS APPLICABLE TO SECTION 3.3

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	NA	~~Not~~ NRC approved changes ~~as of traveler cut-off date.~~ Bases only TR 3.3-004
~~TSTF-36, Rev. 2~~	~~Incorporated~~	~~3.3-34~~	Q 3.3-34
TSTF-37, Rev. 1	Not Incorporated	NA	ITS 5.6.8 still addresses PAM reports. Sections after ITS 5.6.7 were not renumbered.
TSTF-51	Not Incorporated	NA	Requires plant-specific reanalysis to establish decay time dependence for fuel handling accident.
~~TSTF-91~~	~~Not Incorporated~~	~~NA~~	~~[Trip Setpoints and] Allowable Values for loss of voltage and degraded voltage will remain in the TS.~~ TR 3.3-005
TSTF-111, Rev. 4	Incorporated	NA	Q 1-03
TSTF-135, Rev. 1	Partially Incorporated 3.3-90 3.3-91 3.3-106	3.3-41, 3.3-44, 3.3-93, 3.3-95, 3.3-122 3.3-142	~~Traveler is too broad scoope in nature; should have been separate travelers. Portions of the traveler that significantly clarify operability requirements have been incorporated.~~ TR 3.3-006
TSTF-161, Rev. 1	Incorporated	3.3-79	Approved by NRC Q 3.3-79
TSTF-168	Incorporated	3.3-43	Approved by NRC. Q 3.3-43
TSTF-169	Incorporated	3.3-42	Approved by NRC. TR 3.3-003
~~WOG-106~~ TSTF-242	Incorporated	3.3-49	Q 3.3-49
~~Proposed Traveler~~ TSTF-246	Incorporated	3.3-107	~~WOG Mini-group Action Item # 45~~ Q 3.3-107

CHANGE NUMBER	JUSTIFICATION
3.3-37	Several ITS Required Action Notes are modified per CTS to allow a channel to be placed in bypass for surveillance testing. [ ]
3.3-38	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-39	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-40	~~This change adds "and setpoint adjustment" to ITS 3.3.1 Condition E, similar to the Note for Condition D. Setpoint adjustment is required by the Required Actions of other specifications. The clarity and consistency of the specification is enhanced by adding this note to Condition E, in the same manner as Condition D.~~ Not used. Q 3.3-40
3.3-41	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-42	This change deletes ITS 3.3.1 Condition N per Traveler TSTF-169. Condition M is appropriate for Function 10.a to prevent sequential entry into Condition N followed by M and exceeding the evaluated Completion Time in WCAP-10271-P-A, Supplement 2, Rev. 1. With this change, there is no need to list separate Functions 10.a and 10.b and combining the Functions eliminates Applicability questions similar to the Condition M vs. N concern above.
3.3-43	This change revises ITS 3.3.1 Condition R Notes 1 and 2 per Traveler TSTF-168. The 2-hour AOT should not be limited to only UVTA/STA maintenance. This is consistent with the current TS and is acceptable because the specific maintenance activity which requires that a reactor trip breaker be bypassed does not affect the impact of having the breaker bypassed. [ ]
3.3-44	This change revises ITS 3.3.1 Conditions S and T and ITS 3.3.2 Condition L ~~as well as the number of Required Channels in Tables 3.3.1-1 and 3.3.2-1,~~ to reflect current TS ACTION Statements [8 and 21]. The Conditions apply to one or more channels [or trains, as Condition T applies to permissive P-7,] because the safety function is served with the interlock in the appropriate state for existing plant conditions. ~~The existing plant design only requires 3 of the 4 channels (2-out-of-3 for P-11) for these interlocks to be operable.~~ Q 3.3-44 Q 3.3-44
3.3-45	A new CONDITION ~~and SR are~~ w is added for the current licensing basis required seismic trip. DC ALL-005
3.3-46	A new CONDITION and SR are added for the current licensing basis required Steam Generator level low-low time delay trip. These changes affect both ITS 3.3.1 and 3.3.2.
3.3-47	Note 2 of SR 3.3.1.2 is revised to limit the power increase to less than 30% per the current licensing basis before the SR is complete.
3.3-48	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-49	ITS SR 3.3.1.8 is revised to extend the conditional COT frequency for power and intermediate range channels from 4 hours after reducing power below P-10 to 12 hours, based on operating experience regarding the time needed to perform the COTs. It stands to reason that if 4 hours are allowed for 2 Source Range COTs, 12 hours should be allowed for 6 Intermediate Range and Power Range COTs. The SR continues to assure that the COTs are performed in a timely manner after the requisite plant conditions are entered. This change is consistent with Traveler ~~WOG-106~~ TSTF-242. Q 3.3-49
3.3-50	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-54 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Function 18.b (P-7) of ITS Table 3.3.1-1 is clarified. COTs and Channel Calibrations apply to the P-10 and P-13 inputs, not to the P-7 logic function.

Comment: Reject - Deleting all SRs results in no TS requirements for establishing interlock operability. Revise the ITS to adopt the STS. This is also an Beyond Scope change.

Scope issue

FLOG RESPONSE: SR 3.3.1.5 has been assigned to ITS Table 3.3.1-1 Function 18.b (this was already discussed in the SR 3.3.1.5 Bases), as previously approved for Vogtle. JFD 3.3-54 has been revised for clarification. Except for DCPP, there are no current TS Enclosure 2, 3A/3B, or 4 changes required since there is no surveillance listing for P-7 in CTS Table 4.3-1. WCNOC will now adopt JFD 3.3-54.

For DCPP, the P-7 permissive is a derivative of permissives P-10 and P-13 and the CTS requires that the P-7 as well as P-10 and P-13 be surveillance tested via a COT and a CHANNEL CALIBRATION. There are no field sensors associated with P-7; there are only sensors associated with P-10 and P-13. There is also no place outside the SSPS to inject a simulated signal into P-7. There are no adjustable devices directly associated with P-7 and, therefore, no required range or accuracy values except via the P-10 and P-13 functions. There are no outputs from P-7 other than to the main annunciator permissive window and a digital output to the plant process computer. There are no interlock or trip functions outside the SSPS. Therefore, the definition of a CHANNEL CALIBRATION and COT do not apply to P-7. The P-7 function does lend itself to testing that would meet the requirements of the definition of an ACTUATION LOGIC TEST. As noted in the Bases for SR 3.3.1.5, "Perform ACTUATION LOGIC TEST," the P-7 logic is included in the SSPS testing that is conducted monthly on a STAGGERED TEST BASIS. This testing, however, does not verify the function of the main annunciator alarm that can only be tested during a refueling outage. Therefore, DCPP will apply SR 3.3.1.17 to the P-7 Function in lieu of the CTS and STS required CHANNEL CALIBRATION and COT, which as explained above are inappropriate.

Refer to Comment Number Q 1-51 response for changes to the CTS.

ATTACHED PAGES:

Encl. 5A	3.3-25
Encl. 5B	B 3.3-63
Encl. 6A	5
Encl. 6B	9

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
18. Reactor Trip System Interlocks						
a. Intermediate Range Neutron Flux, P-6	2(e)	2	S	SR 3.3.1.11 SR 3.3.1.13	≥ ~~6E-11~~ 8 amp	B DC ALL-005 ≥ 1E-10 amp 3.3-54
b. Low Power Reactor Trips Block, P-7	1	1 per train	T	~~NA~~ SR 3.3.1.17 ~~SR 3.3.1.11~~ ~~SR 3.3.1.13~~	NA	Q 3.3-54 ~~NA~~ ~~3.3-44~~ e B-PS
c. Power Range Neutron Flux, P-8	1	~~4~~ e Remove Strike Out	T	SR 3.3.1.11 SR 3.3.1.13	≤ ~~[50.2]~~ ~~37.1~~ 36.2 % RTP Q 3.3-44	DC ALL-005 ≤ ~~[48]~~ 35% RTP ~~3.3-44~~ e B-PS B
d. Power Range Neutron Flux, P-9	1	~~4~~ e	T	SR 3.3.1.11 SR 3.3.1.13	≤ ~~[52.2]~~ ~~52.1~~ 51.2 % RTP	DC ALL-005 ≤ 50% RTP B-PS B ~~3.3-44~~ e
e. Power Range Neutron Flux, P-10	1,2	~~4~~ e	S	SR 3.3.1.11 SR 3.3.1.13	≥ ~~[7.8]~~ ~~7.9~~ 8.8 % RTP and ≤ ~~[12.2]~~ ~~12.1~~ 11.2 % RTP	DC ALL-005 ≥ 10% RTP B B-PS PS
f. Turbine Impulse Chamber Pressure, P-13	1	2	T	~~[SR 3.3.1.1]~~ SR 3.3.1.10 SR 3.3.1.13	≤ ~~[12.2]~~ ~~12.1~~ 10.2 % RTP turbine ~~power~~ impulse pressure equivalent	DC ALL-005 ≤ 10% RTP turbine ~~power~~ impulse pressure equivalent

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(e) Below the P-6 (Intermediate Range Neutron Flux) interlock.

(j) Above the P-9 (Power Range Neutron Flux) interlock.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.16 (continued)

determined during unit operation because equipment operation is required to measure response times. Experience has shown that these components usually pass this surveillance when performed at the 18 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.3.1.16 is modified by a Note stating that neutron detectors are excluded from RTS RESPONSE TIME testing. This Note is necessary because of the difficulty in generating an appropriate detector input signal. Excluding the detectors is acceptable because the principles of detector operation ensure a virtually instantaneous response. Response time of the neutron flux signal portion of the channel shall be measured from detector output or input to the first electronic component in the channel.

SR 3.3.1.17

DC 3.3-E

Q 3.3-54

SR 3.3.1.~~18~~ 17 is the performance of an ACTUATION LOGIC TEST for the ~~Seismic trip~~ P-7 logic interlock. The frequency of every ~~18~~ 24 months is based on instrument reliability and operating history data and the requirement that the test be performed during a refueling outage so that the annunciator can be verified.

DC-ALL-005

REFERENCES

1. FSAR, Chapter [7].
2. FSAR, Chapter [6].
3. FSAR, Chapter [15].
4. IEEE-279-1971.
5. 10 CFR 50.49.
6. ~~RTS/ESFAS Setpoint Methodology Study~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagel 21 Version," May 1993.
7. WCAP-10271-P-A, Supplement 2, Rev. 1, June 1990.
8. ~~Technical Requirements Manual, Section 15~~ ~~FSAR, Chapter 7, "Response Times."~~ WCAP 13632 - PA-1, Rev. 2 "Elimination of Pressure Sensor Response Time Testing Requirements."
9. FSAR, Chapter 9.2.7 & 9.2.2.
10. FSAR, Chapter 10.3 & 10.4.
11. FSAR, Chapter 8.3.
12. OCM S-38A, "Plant Protection System"
13. WCAP-13878, "Reliability of Potter & Brumfield MDR Relays", June 1994.

(continued)

CHANGE NUMBER	JUSTIFICATION
3.3-51	ITS ACTION B.2 of LCO 3.3.7 is deleted, since DCPP cannot operate with both pressurization systems running at the same time. The design of the system is such that operation of two pressurization fans would over pressurize the supply ducting to the filters.
3.3-52	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-53	The REQUIRED CHANNELS description for Functions 2.a and 3.b.(1), of ITS Table 3.3.2-1, are revised per the CTS to note that only two switches (one per train) exist and that both must be moved coincident for manual initiation.
3.3-54	Function 18.b (P-7) of ITS Table 3.3.1-1 is clarified to add [SR 3.3.1.17] and delete SR 3.3.1.11 and SR 3.3.1.13. ~~COTs and Channel Calibrations apply to the P-10 and P-13 inputs, not to the P-7 logic function.~~ Logic functions are tested under SR 3.3.1.5 [and SR 3.3.1.17]. This change is an ~~administrative clarification to address the relationships between these interlocks in the~~ plant's design. [ ]. The ITS approach of listing [an ALT] against function 18.b has been previously approved for Vogtle. Q 3.3-54
3.3-55	~~Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).~~ INSERT 3.3-55 Q 3.3-55
3.3-56	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-57	Not used.
3.3-58	This change adds new ITS 3.3.2 Condition [N] to reflect current TS Table 3.3-3 ACTION Statement [24] on manual AFW [and manual MSIV closure] initiation.
3.3-59	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B). DC ALL-002
3.3-60	Consistent with the design and current TS, Surveillance Requirements [ ] 3.3.2.3 and 3.3.2.7 are not used by any function listed in Table 3.3.2-1 and are deleted. DC ALL-001
3.3-61	This change revises the ITS SR 3.3.2.11 Frequency to [24] months per current TS Table 4.3-2 Functional Unit [8.c], which is the ESFAS P-4 permissive. The 18 month Frequency for the surveillance of the basic switch logic associated with the opening of the reactor trip breakers is the value specified in the current TS. [Deleted the Note stating that verification of set point is not required per the CTS.]
3.3-62	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-63	This change revises ITS Table 3.3.2-1 [Notes (b) and (g)] per current TS Table [3.3-3] Notes [# and ##]. This revision is a clarification to the operator that describes the circumstances under which the [Steamline Pressure Negative Rate - High, Steam Pressure-low, or Pressurizer Pressure-low functions may be or are blocked relative to the] P-11 permissive.
3.3-64	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-65	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-66	The MODE 4 requirement of the CTS is retained and added to Table 3.3.2-1 for SI actuated by Containment Pressure high-high. ~~ITS 3.3.2 ACTIONS D and E are revised accordingly.~~ INSERT 3.3-66(a) CA 3.3-012
3.3-67	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-49	ITS SR 3.3.1.8 is revised to extend the conditional COT frequency for power and intermediate range channels from 4 hours after reducing power below P-10 to 12 hours, based on operating experience regarding the time needed to perform the COTs. It stands to reason that if 4 hours are allowed for 2 Source Range COTs, 12 hours should be allowed for 6 Intermediate Range and Power Range COTs.	Yes	Yes	Yes	Yes
3.3-50	ITS SR 3.3.1.12 is deleted per the CTS. Where cited in Table 3.3.2-1, a change to SR 3.3.1.10 has been made.	No, see CN 3.3-101.	Yes	Yes	Yes
3.3-51	ITS ACTION B.2 of LCO 3.3.7 is deleted, since DCPP cannot operate CRVS with both pressurization systems running at the same time.	Yes	No	No	No
3.3-52	Added Note [(l)] to ITS Table 3.3.1-1 per the CTS as an operator aid to note the dual RTS/ESFAS functions of SG Water Level Low-Low.	No, adopted ISTS format.	Yes	Yes	Yes
3.3-53	The REQUIRED CHANNELS description for Functions 2.a and 3.b.(1), of ITS Table 3.3.2-1, are revised per the DCPP CTS to note that only two switches (one per train) exist and that both must be moved coincident for manual initiation.	Yes	No	No	No
3.3-54	Function 18.b (P-7) of ITS Table 3.3.1-1 is clarified to add [SR 3.3.1.17] and delete SR 3.3.1.11 and SR 3.3.13. COTs and Channel Calibrations apply to the P-10 and P-13 inputs, not to the P-7 logic function.	Yes	Yes	~~No, adopted ISTS format.~~ Yes	Yes Q 3.3-54
3.3-55 are within limits specified in the [FSAR]	Revise ITS SR 3.3.1.16 and SR 3.3.2.10 to verify ~~"required"~~ response times, accommodating those channels that have no ~~response time~~ requirements per the current licensing basis. [As such, line-item references to these SRs in Tables 3.3.1-1 and 3.3.2-1 can be deleted. A similar revision to the ITS SR 3.3.6 SR note has also been made reguarding SR 3.3.6.8.]	~~No, SRs will be retained in ITS Tables for required Functions.~~ Yes	Yes	Yes, SRs will be retained in ITS Tables for required Functions.	Yes Q 3.3-55
3.3-56	Revise ITS 3.3.2 Condition J to reflect CTS Table [3.3-3], ACTION Statement [19] for Functional Unit [6.g].	No, See CN 3.3-116.	Yes	Yes	Yes

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-55 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

Reject - The ITS proposes generic changes to the STS by deleting SR 3.3.1.16 for applicable functions in T3.3.1-1 and modifying SR 3.3.1.16 that are not included in an approved TSTF.

Adoption of WCAP-13632 for eliminating selected sensor response time testing requires staff review independent of the Conversion TS review

TSB management sees no benefit to making this change because the proposed STS format introduces ambiguity in identifying TS required testing. Additionally, this change is generic and the staff has not received a TSTF request to review these changes. Bill notes that the staff is <u>very</u> sensitive about changes to response time testing requirements and although the staff approved moving response time lists to owner-controlled documents, elimination of TS required RT testing requires a TS amendment in either the old STS format or in iSTS.

FLOG RESPONSE: Based on meetings with the NRC held between September 15 and September 18, 1998, Diablo Canyon will also be taking this change. The Note preceding the Surveillance Requirements in ITS 3.3.1 and 3.3.2 has been modified and the wording in ITS SR 3.3.1.16 and SR 3.3.2.10 has been revised to cite the licensee controlled document where the response time limits are contained. In addition, surveillances originally modified under JFD 3.3-31 will be revised to be consistent with the changes to ITS SR 3.3.2.10 since the affected surveillances measure ESF RESPONSE TIMES.

For WCGS, JFD 3.3-55 is now being adopted in its entirety, which also results in their adopting JFD 3.3-31.

ATTACHED PAGES:

Encl. 2	3/4 3-1, 3/4 3-14
Encl. 3A	1
Encl. 5A	3.3-13, 3.3-17, 3.3-18, 3.3-20, 3.3-21, 3.3-22, 3.3-36, 3.3-37, 3.3-39, 3.3-41, 3.3-42, 3.3-44, 3.3-47, 3.3-49, 3.3-67, and 3.3-68
Encl. 5B	B 3.3-54, B 3.3-61, B 3.3-123, B 3.3-168
Encl. 6A	5
Encl. 6B	9

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

01-63-A Q1-AGEN

3.3.1 As a minimum, the Reactor Trip System instrumentation channels and interlocks of Table 3.3-1 shall be OPERABLE ~~with RESPONSE TIMES as shown in Table 3.3-2.~~ 01-35-LG

APPLICABILITY: As shown in Table 3.3-1.

ACTION:* 01-01-A

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

4.3.1.1 Each Reactor Trip System instrumentation channel and interlock and the automatic trip logic shall be demonstrated OPERABLE by performance of the Reactor Trip System Instrumentation Surveillance Requirements specified in Table 4.3-1.

Q 3.3-55

4.3.1.2 The ~~required~~ REACTOR TRIP SYSTEM RESPONSE TIME of each Reactor trip function shall be ~~demonstrated~~ verified to be within its limit at least once per 18 months on a STAGGERED TEST BASIS. ~~Each test shall include at least one train such that both trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific Reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1.~~ 01-02-LG 01-03-LS1

24 24 DC ALL-001

(new) * Separate Condition entry allowed for each function.

01-01-A

3/4.3.2 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

01-63-A
Q 1-A GEN
02-01-A

3.3.2 The Engineered Safety Features Actuation System (ESFAS) instrumentation channels and interlocks shown in Table 3.3-3 shall be OPERABLE with their Trip Setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4 ~~and with RESPONSE TIMES as shown in Table 3.3-5.~~ 01-35-LG

APPLICABILITY: As shown in Table 3.3-3.

ACTION: * 01-01-A

a. With an ESFAS Instrumentation Channel or Interlock Trip Setpoint less conservative than the value shown in the Trip Setpoint column but more conservative than the value shown in the Allowable Values column of Table 3.3-4, adjust the Setpoint consistent with the Trip Setpoint value. 02-04-LG

b. With an ESFAS Instrumentation Channel or Interlock Trip Setpoint less conservative than the value shown in the Allowable Values column of Table 3.3-4, declare the channel inoperable and apply the applicable ACTION statement requirements of Table 3.3-3 until the channel is restored to OPERABLE status with its Trip Setpoint adjusted consistent with the Trip Setpoint value. 02-04-LG

SURVEILLANCE REQUIREMENTS

4.3.2.1 Each ESFAS instrumentation channel and interlock and the automatic actuation logic and relays shall be ~~demonstrated~~verified OPERABLE by the performance of the Engineered Safety Feature Actuation System Instrumentation Surveillance Requirements specified in Table 4.3-2. 01-03-LS1

Q 3.3-55

4.3.2.2 The ~~required~~ e ENGINEERED SAFETY FEATURES RESPONSE TIME of each ESFAS function shall be ~~demonstrated~~ verified to be within the limit at least once per 24 18 months on a STAGGERED TEST BASIS**. ~~Each test shall include at least one train such that both trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" column of Table 3.3-3.~~ 48 24

01-02-LG
01-03-LS1
02-40-A
DC ALL-001

DC 3.3-Ed

(new) * Separate ACTION entry is allowed for each Functional Unit. 01-01-A

(new) ** Not required to be performed for the turbine driven auxiliary feedwater pump until 24 hours after steam generator pressure ≥650 psig. 02-40-A

DESCRIPTION OF CHANGES TO TS SECTION 3/4.3

This Enclosure contains a brief description/justification for each marked-up change to existing current plant Technical Specifications (CTS). The changes are keyed to those identified in Enclosure 2 (mark-up of the CTS). The referenced No Significant Hazards Considerations (NSHC) are contained in Enclosure 4. All proposed technical changes to the CTS are discussed below; however, some administrative changes (i.e., format, presentation, and editorial changes made to conform to the Improved Technical Specifications (ITS)) may not be discussed. For Enclosures 3A, 3B, 4, 6A, and 6B, text in brackets "[ ]" indicates the information is specific and is not common to all the Joint Licensing Subcommittee (JLS) Plants. Empty brackets indicate that other JLS plants may have plant specific information in that location.

CHANGE NUMBER	NSHC	DESCRIPTION
01-01	A	A Note, "Separate Condition entry is allowed for each Function," is added to the ACTIONS for the Reactor Trip System, ESFAS, ~~[Remote Shutdown also applies to each required ASP control]~~, Radiation Monitoring (except RCS leakage since it has seperate ACTIONS specified for each function or combination of functions) and Accident Monitoring Instrumentation. This change clarifies those situations where the current TS ACTION Statements are not uniquely associated with a particular Function or where the required channels are specified on a per steam line, per loop, per SG, per bus, etc., basis. This change is consistent with current operating practices and NUREG-1431. [ ] INSERT 1-01-A DC ALL-002 DC 3.3-Ed Q 1-01
01-02	LG	The CTS require that response time testing be performed on each reactor trip and ESFAS function every 48 [24] months and that alternate trains be tested in successive tests. The CTS description of the channel testing protocol matches the improved TS definition of STAGGERED TEST BASIS. However, several trip functions do not require response time testing, as indicated by N.A. in the tables of response time limits [(presently located in Tables 3.3-2 and 3.3-5 of the CTS, which are being to the FSAR per CN 01-35-LG)]. The improved TS specify that ~~required~~ response time testing be performed on a STAGGERED TEST BASIS and do not impose any requirements as to which train should be tested. Therefore, ~~the word "requirement" is added to the CTS and~~ the requirement to ensure that each train is tested every 36 [48] months is moved to the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10. DC ALL-001 Q 3.3-55 Q 3.3-55 DC-ALL-001
01-03	LS1	In CTS SR 4.3.1.2 and 4.3.2.2, the active verb is changed from "demonstrated" to "verified." This allows Reactor Trip System and ESFAS sensor response time verifications to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements." This change is consistent with Traveler TSTF-111 Rev. 1, which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing. Q 1-03

SURVEILLANCE REQUIREMENTS

----------NOTE----------
Refer to Table 3.3.1-1 to determine which SRs, other than RTS RESPONSE TIME verification, apply for each RTS Function.
RTS RESPONSE TIME verification is specified in SR 3.3.1.16.

3.3-56
3.3-56

SURVEILLANCE		FREQUENCY
SR 3.3.1.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.1.2	----------NOTES---------- 1. Adjust NIS channel if absolute difference is > 2%. 2. Not required to be performed until ~~[12]~~ 24 hours after THERMAL POWER is ≥ 15% RTP~~, but prior to exceeding 30% RTP~~. ------------------------ Compare results of calorimetric heat balance calculation to Nuclear Instrumentation System (NIS) channel output.	B-PS 3.3-47 24 hours
SR 3.3.1.3	----------NOTES---------- 1. Adjust NIS channel if absolute difference is ≥ 3%. 2. Not required to be performed until 24 hours after THERMAL POWER is ≥ ~~[15]~~50% RTP. ------------------------ Compare results of the incore detector measurements to NIS AFD.	B 3.3-96 31 effective full power days (EFPD)

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
		(continued)
SR 3.3.1.14	-------------------NOTE-------------------- Verification of setpoint is not required. --- Perform TADOT.	~~18~~ 24 months DC ALL-001 B
SR 3.3.1.15	--------------------NOTE------------------- Verification of setpoint is not required. --- Perform TADOT.	------NOTE------ Only required when not performed within previous 31 days ---------------- Prior to reactor startup
SR 3.3.1.16	-------------------NOTE-------------------- Neutron detectors are excluded from response time testing. --- Verify RTS RESPONSE TIME is within limits as specified in the FSAR update.	~~18~~ 24 months on a STAGGERED TEST BASIS DC ALL-001 B Q 3.3-55
SR 3.3.1.17	Perform ACTUATION LOGIC TEST.	~~18~~ 24 months ~~3.3-45~~ DC ALL-005 3.3-54

Table 3.3.1-1 (page 1 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
1. Manual Reactor Trip	1.2	2	B	SR 3.3.1.14	NA	NA
	3(b), 4(b), 5(b)	2	C	SR 3.3.1.14	NA	NA
2. Power Range Neutron Flux						B-PS
a. High	1.2	4	D	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.7 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ ~~[111.2]~~ ~~111.1~~% RTP 110.2	≤ 109% RTP DC ALL-005 B 3.3-55 3.3-55
b. Low	1(c),2	4	E	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ ~~[27.2]~~ ~~27.1~~% RTP 26.2	≤ 25% RTP DC ALL-005 B
3. Power Range Neutron Flux Rate						B-PS DC ALL-005
a. High Positive Rate	1.2	4	E	SR 3.3.1.7 SR 3.3.1.11	≤ ~~[6.8]~~ ~~6.3~~% RTP 5.6 with time constant ≥ 2 sec	≤ 5% RTP with time constant ≥ 2 sec
b. High Negative Rate	1.2	4	E	SR 3.3.1.7 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ ~~[6.8]~~ ~~6.3~~% RTP 5.6 with time constant ≥ 2 sec	≤ 5% RTP with time constant ≥ 2 sec DC ALL-005 B
4. Intermediate Range Neutron Flux	1(c), 2(d)	2	F.G	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11	≤ ~~[31]~~ ~~30.9~~% RTP 30.6	≤ 25% RTP DC ALL-005 B-PS
	~~2(e)~~	~~2~~	~~H~~	~~SR 3.3.1.1~~ ~~SR 3.3.1.8~~ ~~SR 3.3.1.11~~	~~≤ [31] % RTP~~	~~≤ 25% RTP~~ 3.3-95

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(b) With ~~Reactor Trip Breakers (RTBs) closed and~~ Rod Control System capable of rod withdrawal or ~~all~~ one or more rods not fully inserted. 3.3-122

TR 3.3-006

Table 3.3.1-1 (page 2 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT~~(a)~~
5. Source Range Neutron Flux	2(e)	2	I,J	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ 1.4 E5 cps	≤ 1.0 E5 cps
	$3^{(b)}$, $4^{(b)}$, $5^{(b)}$	2	J,K	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ 1.4 E5 cps	≤ 1.0 E5 cps
	$3^{(f)}$, $4^{(f)}$, $5^{(f)}$	1	L	SR 3.3.1.1 SR 3.3.1.11	N/A	N/A
6. Overtemperature ΔT	1,2	4	E	SR 3.3.1.1 SR 3.3.1.3 SR 3.3.1.6 SR 3.3.1.7 SR 3.3.1.~~12~~ 10 ~~SR 3.3.1.16~~	Refer to Note 1 (Page 3.3-2~~1~~4)	Refer to Note 1 (Page 3.3-2~~1~~4)
7. Overpower ΔT	1,2	4	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.~~12~~ 10 ~~SR 3.3.1.16~~	Refer to Note 2 (Page 3.3-2~~2~~5)	Refer to Note 2 (Page 3.3-2~~2~~5)

ED
B
3.3-55
Q 3.3-55
3.3-101
3.3-101

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

one or More TR 3.3-006

(b) With ~~RTBs closed and~~ Rod Control System capable of rod withdrawal or ~~all~~ rods not fully inserted. 3.3-122

(e) Below the P-6 (Intermediate Range Neutron Flux) interlocks.

(f) With the RTBs open or all rods fully inserted and incapable of withdrawal. In this condition, source range Function does not provide reactor trip but does provide ~~[input to the Boron Dilution Protection System (LCO 3.3.9), and]~~ indication. 3.3-11 B-PS

Table 3.3.1-1 (page 3 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT~~(a)~~ ED
8. Pressurizer Pressure						B-PS DC ALL-005
a. Low	1(g)	4	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[1886]~~ ~~1944.4~~ 1947.5 psig	≥ ~~[1900]~~ 1950 psig ≤ 2385 psig B
b. High	1,2	4	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≤ ~~[2396]~~ ~~2390.0~~ 2387.5 psig	3.3-55 Q 3.3-55 DC ALL-005
9. Pressurizer Water Level – High	1(g)	3	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≤ ~~[93.8]~~ ~~92.5%~~ 90.2 ~~89.8~~	≤ ~~92%~~ 90 B- DC ALL-005
10. Reactor Coolant Flow – Low	1(g)	3 per loop	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~(89.2)~~ %(l) of MMF/loop	~~≥ [90]%(l)~~ ≥ [90]% Q 3.3-55 B- 3.3-09 3.3-42 Q 3.3d GEN
~~a. Single Loop~~	~~1(h)~~	~~3 per loop~~	~~M~~	~~SR 3.3.1.1~~ ~~SR 3.3.1.7~~ ~~SR 3.3.1.10~~ ~~SR 3.3.1.16~~	~~≥ [89.2] %~~	
~~b. Two Loops~~	~~1(i)~~	~~3 per loop~~	~~M~~	~~SR 3.3.1.1~~ ~~SR 3.3.1.7~~ ~~SR 3.3.1.10~~ ~~SR 3.3.1.16~~	~~≥ [89.2] %~~	~~≥ [90]%~~

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(g) Above the P-7 (Low Power Reactor Trips Block) interlock.

~~(h) Above the P-8 (Power Range Neutron Flux) interlock.~~ 3.3-42

~~(i) Above the P-7 (Low Power Reactor Trips Block) interlock and below the P-8 (Power Range Neutron Flux) interlock.~~ 3.3-42

(l) Minimum measured flow (MMF) is 89,800 gpm per loop for Unit 1 and 90,625 gpm per loop for Unit 2. DC 3-3-Ed 3.3-09

Table 3.3.1-1 (page 4 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
						3.3-103
11. Reactor Coolant Pump (RCP) Breaker Position	1(g)	1 per RCP	M	SR 3.3.1.14	NA	NA
~~a. Single Loop~~	~~1(h)~~	~~1 per RCP~~	~~O~~	~~SR 3.3.1.14~~	~~NA~~	~~NA~~
~~b. Two Loops~~	~~1(i)~~	~~1 per RCP~~	~~M~~	~~SR 3.3.1.14~~	~~NA~~	~~NA~~
					7817	B-PS DC ALL-005
12. Undervoltage RCPs	1(g)	~~[3]~~ 2 per bus	M	SR 3.3.1.9 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[4760]~~ ~~7730~~ V-each bus	≥ ~~[4830]~~ 8050 V-each bus
					3.3-55 Q 3.3-55	B-PS B
13. Underfrequency RCPs	1(g)	3 per bus	M	SR 3.3.1.9 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[57.1]~~ 53.9 Hz-each bus	≥ ~~[57.5]~~ 54.0 Hz-each bus
						B-PS
14. Steam Generator (SG) Water Level – Low Low	1,2	~~[4~~ 3 per SG~~]~~	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[30.4]~~ ~~6.8%~~ 7.0	≥ ~~[32.3]~~ 7.2% DC ALL-005 3.3-46
a. Trip Time Delay (TTD) from ~~Coincident~~ with ~~a)~~ RCS Loop ΔT equivalent to power ~~≤ 50% RTP with a time delay (TD)~~.	1,2	4 (1/loop)	X	SR 3.3.1.7 SR 3.3.1.10	TTD for RCS loop ΔT variable input ≤ ~~51.5%~~ 50.7% RTP ≤ (1.01) ~~T~~TD (Note 3) and for RCS loop ΔT variable input > ~~51.5~~ 50.7% RTP ~~T~~TD=0	TTD Q3.3-46 for RCS loop ΔT variable input ≤ 50% ≤ ~~T~~TD (Note 3) and for RCS loop ΔT variable input > 50% RTP ~~T~~TD=0
~~OR~~						
~~b) RCS Loop ΔT equivalent to power > 50% RTP with no time delay.~~	~~1~~	~~4(1/loop)~~	~~X~~	~~SR 3.3.1.7~~ ~~SR 3.3.1.10~~		

SURVEILLANCE REQUIREMENTS

other than ESFAS RESPONSE TIME verifications,

3.3-55

Q 3.3-55

NOTE

Refer to Table 3.3.2-1 to determine which SRs apply for each ESFAS Function.

ESFAS RESPONSE TIME verification is specified in SR 3.3.2.10.

SURVEILLANCE		FREQUENCY
SR 3.3.2.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.2.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.3	NOT USED ~~NOTE~~ ~~The continuity check may be excluded.~~ ~~Perform ACTUATION LOGIC TEST.~~	3.3-60 ~~31 days on a STAGGERED TEST BASIS~~
SR 3.3.2.4	Perform MASTER RELAY TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.5	Perform COT.	92 days
SR 3.3.2.6	Perform SLAVE RELAY TEST.	~~[92] days~~ ~~18~~ 24 months B-PS DC ALL-005

(continued)

SR 3.3.2.7	Not Used ~~NOTE~~ ~~Verification of relay setpoints not required.~~ ~~Perform TADOT.~~	3.3-60 ~~[92] days~~

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.2.8	------------------NOTE------------------ Verification of setpoint not required for manual initiation functions. -- Perform TADOT.	DC ALL-001 ~~18~~ 24 months B
SR 3.3.2.9	------------------NOTE------------------ This Surveillance shall include verification that the time constants are adjusted to the prescribed values. -- Perform CHANNEL CALIBRATION.	~~18~~ 24 DC ALL-005 months B
SR 3.3.2.10	------------------NOTE------------------ Not required to be performed for the turbine driven AFW pump until 24 hours after SG pressure is ≥ ~~[1000]~~ 650 psig. -- Verify ESFAS RESPONSE TIMES are within limits specified in the FSAR update.	B B-PS DC ALL-001 ~~18~~ 24 months on a STAGGERED TEST BASIS 3.3-55 3.3-55

(continued)

Table 3.3.2-1 (page 1 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT~~(a)~~ ED
1. Safety Injection						
a. Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA	NA
b. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
c. Containment Pressure – High ~~1~~	1,2,3,4	3	~~D~~ E	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[3.86]~~ ~~3.3~~ 3.12 psig	3.3-66 B-PS Q 3.3-66 DC ALL-005 ≤ ~~[3.6]~~ 3.0 psig DC ALL-005
d. Pressurizer Pressure – Low	1,2,3(b)	~~[3]~~ 4	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[1839]~~ ~~1844.3~~ 1847.5 psig	B B-PS 1850 psig 3.3-55 Q 3.3-55
e. Steam Line Pressure						
(1) Low	1,2,3 (b)	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[635]~~ ~~594.6~~(c) psig 597.6	≥ ~~[675]~~ 600(c) psig DC ALL-005 B-PS
(2) NOT USED ~~High Differential Pressure Between Steam Lines~~	~~1,2,3~~	~~3 per steam line~~	~~D~~	~~[SR 3.3.2.1]~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≤ [106] psig~~	3.3-01 ~~≤ [97] psig~~
f. NOT USED ~~High Steam Flow in Two Steam Lines~~	~~1,2,3(d)~~	~~2 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~(e)~~	3.3-01 ~~(f)~~
~~Coincident with T_{avg} – Low Low~~	~~1,2,3(d)~~	~~1 per loop~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [550.6]°F~~	~~≥ [553]°F~~

Table 3.3.2-1 (page ~~2~~3 of 811)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
~~1. Safety Injection (continued)~~						3.3-01
g. NOT USED ~~High Steam Flow in Two Steam Lines~~	~~1,2,3(d)~~	~~2 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~(e)~~	~~(f)~~
~~Coincident with Steam Line Pressure Low~~	~~1,2,3(d)~~	~~1 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [635](c) psig~~	~~≥ [675] psig~~
2. Containment Spray						3.3-53
a. Manual Initiation	1,2,3,4	~~2 per train~~ with. 2 ~~trains~~ coincident switches	B	SR 3.3.2.8	NA	NA
b. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
c. Containment Pressure				3.3-114 Q 3.3-66		3.3-66 B-PS DC ALL-005
~~High 3 (High~~ High~~)~~	1,2,3,4	4	~~E~~ P	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[12.31]~~ ~~22.3~~ psig 22.12	≤ ~~[12.05]~~ 22 psig 3.3-55 Q 3.3-55 3.3-01
NOT USED ~~High 3 (Two Loop Plants)~~	~~1,2,3~~	~~[3] sets of [2]~~	~~E~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≤ [12.31] psig~~	~~≤ [12.05] psig~~

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

~~(c) Time constants used in the lead/lag controller are t_1 ≥ seconds and t_2 ≤ seconds~~ B

~~(d) Above the P-12 (T_{avg} Low Low) interlock.~~

~~(e) Less than or equal to a function defined as ΔP corresponding to [44]% full steam flow below [20]% load, and ΔP increasing linearly from [44]% full steam flow at [20]% load to [114]% full steam flow at [100]% load, and ΔP corresponding to [114]% full steam flow above 100% load.~~ 3.3-01 3.3-01

~~(f) Less than or equal to a function defined as ΔP corresponding to [40]% full steam flow between [0]% and [20]% load and then a ΔP increasing linearly from [40]% steam flow at [20]% load to [110]% full steam flow at [100]% load.~~ 3.3-01

Table 3.3.2-1 (page ~~3~~4 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

ED

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT~~(a)~~
3. Containment Isolation						
a. Phase A Isolation						
(1) Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
(3) Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					
b. Phase B Isolation						3.3-53
(1) Manual Initiation	1,2,3,4	2 ~~per train~~with, 2 ~~trains~~ coincident switches	B	SR 3.3.2.8	NA	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
(3) Containment Pressure				3.3-114 Q 3.3-66	DC ALL-005 22.12	B-PS 3.3-66
~~High - 3~~ ~~(High High)~~	1,2,3,4	4	E P	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[12.31]~~ ~~22.3~~ psig	3.3-55 Q 3.3-55 ≤ ~~[12.05]~~ 22 psig
4. Steam Line Isolation						3.3-58 PS
a. Manual Initiation	1,2[(1)],3[(1)]	2 1/valve	~~F~~ N	SR 3.3.2.8	NA	NA

Table 3.3.2-1 (page 45 of 811)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT ~~(a)~~
4. Steam Line Isolation (continued)						B-PS B 3.3-137
c. Containment Pressure – High ~~2~~ High	1,2$^{(i)}$, 3$^{(i)}$	4	~~D~~E	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[6.61]~~ ~~22.3~~ psig 22.12	~~3.3-55~~ Q3.3-55 ≤ ~~[6.35]~~ 22.0 psig DC ALL-005
d. Steam Line Pressure						B-PS
(1) Low	1,2$^{(i)}$, 3$^{(b)(i)}$	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[635]~~ ~~594.6~~ 597.2$^{(c)}$ psig	≥ ~~[675]~~ 600$^{(c)}$ psig
(2) Negative Rate – High	3$^{(g)(i)}$	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[121.6]~~ ~~105.4~~ 102.4$^{(h)}$ psi/sec	B-PS ≤ ~~[110]~~100$^{(h)}$ psi/sec DC ALL-005
e. NOT USED ~~High Steam Flow in Two Steam Lines~~	~~1,2$^{(i)}$, 3$^{(i)}$~~	~~2 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~(e)~~	3.3-01 ~~(f)~~
~~Coincident with T_{avg} – Low Low~~	~~1,2$^{(i)}$, 3$^{(d)(i)}$~~	~~1 per loop~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [550.6]°F~~	~~≥ [553]°F~~

(continued)

Q3-3-63

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(b) Above the P-11 (Pressurizer Pressure) interlock ~~Trip function may be blocked in this MODE below the P-11 (pressurizer interlock) setpoint.~~ and below the P-11 interlock unless blocked 3.3-63

(c) Time constants used in the lead/lag ~~controller~~ compensator are $t_1 \geq$ 50 seconds and $t_2 \leq$ 5 seconds. B 3.3-105

~~(d) Above the P-12 (T_{avg} – Low Low) interlock.~~

~~(e) Less than or equal to a function defined as ΔP corresponding to [44]% full steam flow below [20]% load, ΔP increasing linearly from [44]% full steam flow at [20]% load to [114]% full steam flow at [100]% load, and ΔP corresponding to [114]% full steam flow above 100% load.~~ 3.3-01 3.3-01

~~(f) Less than or equal to a function defined as ΔP~~ 3.3-01

Q 3.3-63

DC ALL-005

Table 3.3.2-1 (page ~~6~~7 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
5. Turbine Trip and Feedwater Isolation						PS
a. Automatic Actuation Logic and Actuation Relays	1.2(j). ~~[3](j)~~	2 trains	H ~~[G]~~	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
						B B-PS
b. SG Water Level - High High (P-14)	1.2(j). ~~[3](j)~~	3 per SG	J ~~[D]~~	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[84.2]~~ ~~75.5%~~ 75.2	Q 3.3-127 ≤ ~~[82.4]~~ 75% DC ALL-005
c. Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					DCALL-001
6. Auxiliary Feedwater						3.3-58 3.3-139
a. Manual	1.2.3	1 sw/pp	N	SR 3.3.2.8 13	NA	NA
~~a~~ b. Automatic Actuation Logic and Actuation Relays (Solid State Protection System)	1.2.3	2 trains	G	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA 3.3-55 Q 3.3-55
						3.3-01
c. NOT USED ~~b. Automatic Actuation Logic and Actuation Relays (Balance of Plant ESFAS)~~	~~1.2.3~~	~~2 trains~~	~~G~~	~~SR 3.3.2.3~~	~~NA~~	~~NA~~
						DC ALL-005 B-PS B 3.3-46
~~c~~d. SG Water Level - Low Low	1.2.3 ~~(k)~~	3 per SG	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[30.4]~~ ~~6.8%~~ 7.0	Q 3.3-46 ≥ ~~[32.2]~~ 7.2%

Table 3.3.2-1 (page ~~7~~9 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
6. Auxiliary Feedwater (continued)						
~~d~~e. Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					
~~e~~f. NOT USED ~~Loss of Offsite Power~~	~~1,2,3~~	~~[3] per bus~~	~~F~~	~~SR 3.3.2.7~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [2912] V with ≤ 0.8 sec time delay~~	3.3-01 ~~≥ [2975] V with ≤ 0.8 sec time delay~~
~~f~~g. Undervoltage Reactor Coolant Pump	1~~,2~~	~~[3]~~ 2 per bus	I	SR 3.3.2.7~~8~~ SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[69] %~~ ~~bus voltage~~ ~~7730~~ 7877 volts	B-PS 3.3-127 ~~3.3-55~~ 3.3-55 ≥ ~~[70]% bus voltage~~ 8050 volts DC ALL-005
~~g~~h. NOT USED~~Trip of all Main Feedwater Pumps~~	~~1,2~~	~~[2] per pump~~	~~J~~	~~SR 3.3.2.8~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [ ] psig~~	3.3-116 ~~≥ [ ] psig~~
~~h~~i. NOT USED ~~Auxiliary Feedwater Pump Suction Transfer on Suction Pressure - Low~~	~~1,2,3~~	~~[2]~~	~~F~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.7~~ ~~SR 3.3.2.9~~	~~≥ [20.53] [psia]~~	3.3-01 ~~≥ [ ] [psia]~~
7. ~~Automatic Switchover to Containment Sump~~						3.3-01 DC ALL-002
~~a. Automatic Actuation Logic and Actuation Relays~~	~~1,2,3,4~~	~~2 trains~~	~~C~~	~~SR 3.3.2.2~~ ~~SR 3.3.2.4~~ ~~SR 3.3.2.6~~	~~NA~~	~~NA~~

PS
DC-3.3-Ed
3.3-55
Q 3.3-55

SURVEILLANCE REQUIREMENTS

------------------------------------NOTE------------------------------------
Refer to Table 3.3.6-1 to determine which SRs other than ESFAS CVI RESPONSE TIME verification apply for each Containment ~~Purge and~~ Ventilation Exhaust Isolation Function.
ESFAS CVI RESPONSE TIME verification is specified in SR 3.3.6.8.

PS DC 3.3-Ed
Q 3.3-55

SURVEILLANCE		FREQUENCY
SR 3.3.6.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.6.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.6.3	Perform MASTER RELAY TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.6.4	Perform ~~COT~~ CFT.	3.3-75 92 days
SR 3.3.6.5	Perform SLAVE RELAY TEST.	~~[92] days~~ ~~18~~ 24 months B-PS DC ALL-005
SR 3.3.6.6	NOT USED ~~NOTE~~ ~~Verification of setpoint is not required.~~ ~~Perform TADOT.~~	3.3-76 ~~[18] months~~
SR 3.3.6.7	Perform CHANNEL CALIBRATION.	~~18~~ 24 months DC-ALL-005 DC 3.3-Ed B PS
SR 3.3.6.8	Verify ESF Containment ~~Purge and~~ Ventilation Exhaust Isolation ~~response time is~~ RESPONSE TIME is within limits as specified in the FSAR update.	~~18~~ 24 months on a STAGGERED TEST BASIS DC ALL-005 3.3-31 3.3-55 Q 3.3-55

PS

DC 3.3-Ed

Table 3.3.6-1 (page 1 of 1)
Containment Purge and Exhaust Isolation Instrumentation

3.3-79

Remove Strike Out

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT	
~~1. NOT USED~~ Manual Initiation (Remove StrikeOut)	INSERT 3.3-77	2	~~SR 3.3.6.6~~	NA	3.3-77 Q 3.3-77
2. Automatic Actuation Logic and Actuation Relays	1, 2, 3, 4, 6, ~~and~~ (a) And (b)	2 trains 1	SR 3.3.6.2 SR 3.3.6.3 SR 3.3.6.5	NA	3.3-32 Q 3.3-32 PS
3. Containment Ventilation Exhaust Radiation	1, 2, 3, 4, ~~6 and~~ (a) And (b)				Q 3.3-79
a. Gaseous ~~#4 A/B~~ /Particulate	~~1, 2, 3, 4,~~ (a)	~~[1]~~ 2 1 (b)	SR 3.3.6.1 SR 3.3.6.4 SR 3.3.6.7 ~~SR 3.3.6.8~~	~~≤ [2 x background]~~ Per ODCM	3.3-32 ~~3.3-31~~ Q 3.3-55
~~b. Particulate~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
~~c. Iodine~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
~~d. Area Radiation~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
4. Containment Isolation – Phase A	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 3.a., for all initiation functions and requirements.				Q 3.3-79

(a) during CORE ALTERATIONS ~~and~~ during movement of irradiated fuel assemblies within containment. 3.3-~~31~~ 79 Q3.3-31

~~(b) only one monitor is required to be OPERABLE in MODE 6 or during movement of irradiated fuel assemblies within containment.~~ 3.3-~~31~~ 79

(b)

Q3.3-32

Q 3.3-55

BASES

SURVEILLANCE REQUIREMENTS

The SRs for each RTS Function are identified by the SRs column of Table 3.3.1-1 for that Function.

Two ~~A~~ Notes ~~has~~ have been added to the SR Table~~, stating~~. The first note states that Table 3.3.1-1 determines which SRs apply to which RTS Functions, other than RTS RESPONSE TIME verification. The second note specifies that RTS RESPONSE TIME verification is specified in SR 3.3.1.16. Q 3.3-55 ~~Note that each channel of process protection supplies both~~ trains of the RTS. When testing Channel I, Train A and Train B must be examined. Similarly, Train A and Train B must be examined when testing Channel II, Channel III, and Channel IV (if applicable). The CHANNEL CALIBRATION and COTs are performed in a manner that is consistent with the assumptions used in analytically calculating the required channel accuracies.

~~Reviewer's Note: Certain Frequencies are based on approval topical reports. In order for a licensee to use these times, the licensee must justify the Frequencies as required by the staff SER for the topical report.~~

Performance of the CHANNEL CHECK once every 12 hours ensures that gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying that the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

Agreement criteria are determined by the unit staff based on a combination of the channel instrument uncertainties, including indication and readability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit.

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.1.1

The Frequency is based on operating experience that demonstrates channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.1.2

SR 3.3.1.2 compares the calorimetric heat balance calculation to the NIS ~~channel output~~ ~~output~~power indications every 24 hours. If the calorimetric exceeds the NIS ~~channel output~~ ~~output~~power indications by > 2% RTP, the NIS is not declared inoperable, but the excore channel gains must be adjusted consistent with the calorimetric power. If

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.1.13

SR 3.3.1.13 is the performance of a COT of RTS interlocks every ~~[18]~~ 24 months.

DC ALL-005

The Frequency is based on the known reliability of the interlocks and the multichannel redundancy available, and has been shown to be acceptable through operating experience.

SR 3.3.1.14

24 DC ALL-001

SR 3.3.1.14 is the performance of a TADOT of the Manual Reactor Trip, RCP Breaker Position, Seismic Trip and the SI Input from ESFAS. This TADOT is performed every ~~[18]~~ months. The test shall independently verify the OPERABILITY of the undervoltage and shunt trip mechanisms for the Manual Reactor Trip Function for the Reactor Trip Breakers and Reactor Trip Bypass Breakers. The Reactor Trip Bypass Breaker test shall include testing of the automatic undervoltage trip.

The Frequency is based on the known reliability of the Functions and the multichannel redundancy available, and has been shown to be acceptable through operating experience.

The SR is modified by a Note that excludes verification of setpoints from the TADOT. The Functions affected have no setpoints associated with them, except for the Seismic Trip that is calibrated by SR 3.3.1.12 at the same 24 month frequency.

DC 3.3-005

SR 3.3.1.15

SR 3.3.1.15 is the performance of a TADOT of Turbine Trip Functions. This TADOT is as described in SR 3.3.1.4, except that this test is performed prior to reactor startup. A Note states that this Surveillance is not required if it has been performed within the previous 31 days. Verification of the Trip Setpoint does not have to be performed for this Surveillance. Performance of this test will ensure that the turbine trip Function is OPERABLE prior to taking the reactor critical. This test cannot be performed with the reactor at power and must therefore be performed prior to reactor startup.

Q 3.3-55

And the individual functions requiring RESPONSE TIME verification

SR 3.3.1.16

SR 3.3.1.16 verifies that the individual channel/train actuation response times are less than or equal to the maximum values assumed in the accident analysis. Response time testing acceptance criteria are included in ~~Technical Requirements Manual, Section 15 (Ref. 8)~~ the FSAR (Ref. 1). Individual component response times are not modeled in the analyses.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

The SRs for each ESFAS Function are identified by the SRs column of Table 3.3.2-1.

~~A~~ Two Note~~s~~ ~~has~~ have been added to the SR Table. ~~to clarify~~ The first note clarifies that Table 3.3.2-1 determines which SRs other than ESFAS RESPONSE TIME verification apply to which ESFAS Functions. The second note specifies that ESFAS RESPONSE TIME verification is specified in SR 3.3.2.10. Q 3.3-55

Note that each channel of process protection supplies both trains of the ESFAS. When testing channel I, train A and train B must be examined. Similarly, train A and train B must be examined when testing channel II, channel III, and channel IV (if applicable). The CHANNEL CALIBRATION and COTs are performed in a manner that is consistent with the assumptions used in analytically calculating the required channel accuracies.

[~~Reviewer's Note: Certain Frequencies are based on approved topical reports. In order for a licensee to use these times, the licensee must justify the Frequencies as required by the staff SER for the topical report.~~]

SR 3.3.2.1

Performance of the CHANNEL CHECK once every 12 hours ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read

(continued)

BASES

ACTIONS

C.1 and C.2 (continued)

valves (RCV-11, 12, FCV 660, 661, 662, 663, 664) in their closed position is met or the applicable Conditions of LCO 3.9.4, "Containment Penetrations," are met for each valve made inoperable by failure of isolation instrumentation. The Completion Time for these Required Actions is Immediately.

A Note states that Condition C is applicable during CORE ALTERATIONS and during movement of irradiated fuel assemblies within containment.

SURVEILLANCE REQUIREMENTS

Two ~~A~~ Notes ~~has~~ have been added to the SR Table. The first note clarifies ~~to clarify that~~ Table 3.3.6-1 determines which SRs, other than ESF CVI RESPONSE TIME verification, apply to which Containment ~~Purge and~~ Ventilation Exhaust Isolation Functions. The second note states that the ESFAS CVI RESPONSE TIME verification is specified in SR 3.3.6.8.

Δ 3.3-55

DC 3.3-Ed

SR 3.3.6.1

Performance of the CHANNEL CHECK once every 12 hours ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including indication and readability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit.

The Frequency is based on operating experience that demonstrates channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of

(continued)

CHANGE NUMBER	JUSTIFICATION
3.3-51	ITS ACTION B.2 of LCO 3.3.7 is deleted, since DCPP cannot operate with both pressurization systems running at the same time. The design of the system is such that operation of two pressurization fans would over pressurize the supply ducting to the filters.
3.3-52	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-53	The REQUIRED CHANNELS description for Functions 2.a and 3.b.(1), of ITS Table 3.3.2-1, are revised per the CTS to note that only two switches (one per train) exist and that both must be moved coincident for manual initiation.
3.3-54	Function 18.b (P-7) of ITS Table 3.3.1-1 is clarified to add [SR 3.3.1.17] and delete SR 3.3.1.11 and SR 3.3.1.13 ~~COTs and Channel Calibrations apply to the P-10 and P-13 inputs, not to the P-7 logic function.~~ Logic functions are tested under SR3.3.1.5[and SR 3.3.1.17]. This change is an administrative ~~clarification to address the relationships between these interlocks in the plant's design.~~ [ ]. The ITS approach of listing [an ALT] against function 18.b has been previously approved for Vogtle. Q 3.3-54
3.3-55	~~Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).~~ INSERT 3.3-55 Q 3.3-55
3.3-56	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-57	Not used.
3.3-58	This change adds new ITS 3.3.2 Condition [N] to reflect current TS Table 3.3-3 ACTION Statement [24] on manual AFW [and manual MSIV closure] initiation.
3.3-59	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B). DC ALL-002
3.3-60	Consistent with the design and current TS, Surveillance Requirements [3.3.2.3 and 3.3.2.7 are] not used by any function listed in Table 3.3.2-1 and are deleted.
3.3-61	This change revises the ITS SR 3.3.2.11 Frequency to ~~18~~ [24] months per current TS Table 4.3-2 Functional Unit [8.c], which is the ESFAS P-4 permissive. The ~~18~~ month Frequency for the surveillance of the basic switch logic associated with the opening of the reactor trip breakers is the value specified in the current TS. [Deleted the Note stating that verification of set point is not required per the CTS.] DC ALL-001
3.3-62	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-63	This change revises ITS Table 3.3.2-1 [Notes (b) and (g)] per current TS Table [3.3-3] Notes [# and ##]. This revision is a clarification to the operator that describes the circumstances under which the [Steamline Pressure Negative Rate - High, Steam Pressure-low, or Pressurizer Pressure-low functions may be or are blocked relative to the] P-11 permissive.
3.3-64	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-65	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-66	The MODE 4 requirement of the CTS is retained and added to Table 3.3.2-1 for SI actuated by Containment Pressure high-high. ~~ITS 3.3.2 ACTIONS D and E are revised accordingly.~~ INSERT 3.3-66(a) CA 3.3-012
3.3-67	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

[illegible]

[illegible]

Insert for Q 3.3-55

Enclosure 6A page 5
Insert 3.3-55

This change revises ITS SR 3.3.1.16 and SR 3.3.2.10 to verify response times are within limits specified in the [FSAR update], accommodating those channels that have no response time requirements per the current licensing basis. [As such, line-item references to these SRs in Tables 3.3.1-1 and 3.3.2-1 can be deleted.] The response time limits and the identification of those functions that have required response times are currently listed in [the current TS, but have been relocated to the FSAR update via DOC 01-35-LG. A similar revision to the ITS 3.3.6 SR Note has also been made regarding SR 3.3.6.8.]

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-49	ITS SR 3.3.1.8 is revised to extend the conditional COT frequency for power and intermediate range channels from 4 hours after reducing power below P-10 to 12 hours, based on operating experience regarding the time needed to perform the COTs. It stands to reason that if 4 hours are allowed for 2 Source Range COTs, 12 hours should be allowed for 6 Intermediate Range and Power Range COTs.	Yes	Yes	Yes	Yes
3.3-50	ITS SR 3.3.1.12 is deleted per the CTS. Where cited in Table 3.3.2-1, a change to SR 3.3.1.10 has been made.	No, see CN 3.3-101.	Yes	Yes	Yes
3.3-51	ITS ACTION B.2 of LCO 3.3.7 is deleted, since DCPP cannot operate CRVS with both pressurization systems running at the same time.	Yes	No	No	No
3.3-52	Added Note [(l)] to ITS Table 3.3.1-1 per the CTS as an operator aid to note the dual RTS/ESFAS functions of SG Water Level Low-Low.	No, adopted ISTS format.	Yes	Yes	Yes
3.3-53	The REQUIRED CHANNELS description for Functions 2.a and 3.b.(1), of ITS Table 3.3.2-1, are revised per the DCPP CTS to note that only two switches (one per train) exist and that both must be moved coincident for manual initiation.	Yes	No	No	No
3.3-54	Function 18.b (P-7) of ITS Table 3.3.1-1 is clarified to add [SR 3.3.1.17] and delete SR 3.3.1.11 and SR 3.3.13. COTs and Channel Calibrations apply to the P-10 and P-13 inputs, not to the P-7 logic function.	Yes	Yes	~~No, adopted ISTS format~~ e Yes	Yes Q 3.3-54
3.3-55	Revise ITS SR 3.3.1.16 and SR 3.3.2.10 to verify ~~required~~ e response times are within limits specified in the [FSAR], accommodating those channels that have no response time requirements per the current licensing basis. [As such, line-item references to these SRs in Tables 3.3.1-1 and 3.3.2-1 can be deleted. A similar revision to the ITS SR 3.3.6 SR note has also been made reguarding SR 3.3.6.8.]	~~No, SRs will be retained in ITS Tables for required Functions.~~ e Yes	Yes	Yes, SRs will be retained in ITS Tables for required Functions.	Yes Q 3.3-55
3.3-56	Revise ITS 3.3.2 Condition J to reflect CTS Table [3.3-3], ACTION Statement [19] for Functional Unit [6.g].	No, See CN 3.3-116.	Yes	Yes	Yes

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-63 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

Revise ITS Table 3.3.2-1 [Note (g)] per current TS Table [3.3-2] Note [b]. This revision is a clarification to the operator that describes the circumstances under which the [Steamline Pressure Negative Rate-High function may be blocked when below the] P-11 permissive.

Comment: The wording of the applicability notes (b) and (g) in the ITS is more limiting than the CTS applicability, therefore, the change is more restrictive and should be documented as such. The CTS notes that the functions must be operable in Mode 3 but may be blocked below the P-11 setpoint. The ITS does not require operability below the P-11 setpoint in Mode 3. The blocking instruction to the operators belongs in the Bases,

FLOG RESPONSE: NRC deleted the reference to note (g) at the September 15, 1998, meeting. ITS Note (b) has been revised to reflect the intent of CTS # note requirements for DCPP, Callaway, and WCGS, and the (a) note requirements for CPSES, as described in new DOC 2-22-A. ITS note (b) now states that the Functions are required above P-11 and are required below P-11 unless blocked. ITS Note (g) is revised to reflect the CTS ## note requirements for DCPP, Callaway, and WCGS, and (b) note requirements for CPSES. ITS Note (g) now states that the Function is required below P-11; however, it is blocked, and for DCPP may be blocked, below P-11 when SI on Steam Line Pressure-Low is not blocked.

In addition to these revisions, the CTS ## note for DCPP, Callaway, and WCNOC, and (b) note for CPSES, is revised to move the descriptive information related to the automatic blocking of these functions to the bases via DOC 2-50-LG.

ATTACHED PAGES:

Encl. 2	3/4 3-21
Encl. 3A	16 and 18
Encl. 3B	18 and 23 of 31
Encl. 5A	3.3-40, 44, and 45
Encl. 5B	B 3.3-76, 77, 90, and 91

TABLE NOTATIONS 02-22-A

\# Trip function may be blocked in this MODE below the P11 (Pressurizer Pressure Interlock) Setpoint. Q 3.3-63

\## Trip function ~~automatically~~ blocked above P-11 (Pressurizer Pressure Interlock) Setpoint and is ~~automatically~~ blocked below P-11 when Safety Injection on Steam Line Pressure-Low is not blocked. 02-30-LG Q 3.3-63

\### For Mode 3, the Trip Time Delay associated with the Steam Generator Water Level-Low-Low channel must be less than or equal to 464.1 seconds. 02-36-M LS49 Q 2-36

(new) ** When associated DG is required to be OPERABLE by LCO 3.8.1.2, "AC Sources-Shutdown."

(new) (a) Not applicable when all MSIVs are closed and deactivated. 02-07-LS11

(new) (b) Not applicable when all MFIVs, main feedwater regulating valves, and main feedwater regulating bypass valves are closed and deactivated or isolated by a closed manual isolation valve. 02-07-LS11

ACTION STATEMENTS

ACTION 14 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~, provided the other channel is OPERABLE. 01-04-LG 01-66-LS95 Q 3.3j

ACTION 15 - With the number of ~~OPERABLE~~ Channels less than the Required Channels, declare the affected emergency Diesel Generator(s) inoperable and comply with the ACTION statements of Specification 3.8.1.1, however, one channel may be bypassed for up to 2 hours for surveillance testing ~~per Specification 4.3.2.1~~. ~~OPERABLE requirement~~ ~~Minimum~~ DC 3.3-001 ~~02-48-LS28~~ 01-43-A Q 3.3j 02-11-A DC 3.3 ED

ACTION 16 - With the number of OPERABLE Channels one less than the ~~Total Number of~~ Required Channels, declare the affected Emergency Diesel Generator(s) inoperable and comply with the ACTION statements of Specification 3.8.1.1; however, one channel may be bypassed for up to 2 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-43-A 02-11-A 01-66-LS95 Q 3.3j

ACTION 17 - With ~~the number of OPERABLE channels one less than the Total Number of Channels~~ one containment pressure channel inoperable, operation may proceed provided the inoperable channel is placed in the bypassed condition ~~and the Minimum Channels OPERABLE requirement is met~~ within 6 hours, or be in MODE 3 in 12 hours and in MODE 5 in 42 hours. 01-43-A 02-15-M 01-04-LG

Note, one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-66-LS95 Q 3.3j

ACTION 17.1 - With one containment pressure channel inoperable, operation may (new) proceed provided the inoperable channel is placed in the bypassed condition within 6 hours, or be in MODE 3 in 12 hours and in MODE 4 in 18 hours. Note, one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 02-15-M Q 3.3j

ACTION 18 - With less than the ~~Minimum~~ Required Channels OPERABLE ~~requirement~~, comply with ACTION 37, and operation may continue beyond the 4 hour period provided the containment purge supply and exhaust valves ~~(RCV-11, 12, FCV-660, 661, 662, 663, 664)~~ are maintained closed. 01-04-LG 02-05-M 02-39-LG 03-14-LS29

CHANGE NUMBER	NSHC	DESCRIPTION
02-15	M	ACTION Statement [17] has been expanded to specify additional actions and options if an inoperable channel is not placed in bypass within the specified time period. In the CTS, this would have required an entry into LCO 3.0.3, which would necessitate that the plant initiate a shutdown within 1 hour and be in the next mode in 6 hours. In the ITS, the requirements to place the inoperable channel in bypass within a time constraint and the reduction, by 1 hour, in the time to exit APPLICABILITY are more restrictive than the CTS. [As a result of the revision to ACTION 17, a new ACTION 17.1 was created for Functional Unit 4.c that requires entry to MODE 4 if the required ACTIONS are not met.] INSERT 2-15-M Q 2-15
02-16	LS12	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-17	LS13	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-18	LS31	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-19	LG	~~This change moves functions provided by a Safety Injection signal and the AFW pump start entries [ ] for Functional Units [6.d, and 6.e] in CTS Table [3.3-3] to the ITS 3.3.2 Bases, consistent with NUREG-1431.~~ INSERT 2-19-LG Q 2-19
02-20	A	~~The Functional Unit for Containment Ventilation Isolation is moved to ITS 3.3.6. There are no technical differences introduced by this process[ ]~~ Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). Q 2-05(2.3)
02-21	LS22	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-22	A	~~Not Used.~~ INSERT 2-22-A Q 3.3-63
02-23	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-24	LS19	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-25	~~A~~	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ Not used. Q 2-25
02-26	LS21	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-27	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

[illegible]

Insert for Q 3.3-63

Enclosure 3A page 16
Insert 2-22-A

The CTS [#] note of Table [3.3-3] is technically equivalent to ITS note (b), Table 3.3.2-1.

CHANGE NUMBER	NSHC	DESCRIPTION
02-41	~~LS36~~	Not ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ used. CA 3.3-009
02-42	~~LS38~~	Not ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B)~~ used. CA 3.3-002
02-43	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-44	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-45	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-46	LS42	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-47	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-48	~~LS28~~	Not used. ~~A new Action 15 is added and applied to Functional Unit 7. a. 2) and 7. b. 1) that allows the affected Emergency Diesel Generator to be declared inoperable and requires entry into Specification 3.8.1.1 when more than one relay per bus is inoperable. Current ACTION 16 does not address the above situation and requires entry into LCO 3.0.3. This change is consistent with NUREG-1431.~~ DC 3.3-001 Q 3.3-63 Q 3.3-79 Q 2-08
INSERT 2-50-LG INSERT 2-51 LG INSERT 2-56-LS48		
03-01	A	The requirements of this specification [CTS 3.3.3.1] are moved to [four] separate specifications in the improved TS. The RCS Leakage Detection requirements are moved to improved TS 3.4.15. [The Fuel Building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [The Containment Ventilation Isolation requirements are moved to improved TS 3.3.6.]
03-02	M	~~The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.6-1, 3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.~~ INSERT 3-02-M Q 3-02
03-03	LG	The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10CFR70.24; however, there is no requirement for [them] to be in the Technical Specifications [as criticality monitors. They are retained, however, as initiators of the Iodine Removal mode of the FHBVS for a fuel handling accident until RM-~~44A~~ 45A and ~~44B~~ 45B are installed in accordance with License Amendment 70/69.] Since Part 70 is invoked in the operating license, these monitors will be retained in the plant design. INSERT 3-03 DC ALL-002 Q 3-03

Insert for Q 3.3-63

Enclosure 3A page 18
Insert 2-50-LG

02-50 LG The CTS [##] note of Table 3.3-3 is revised to move the descriptive material related to the automatic blocking of the interlock to the ITS 3.3.2 Bases. Moving these details does not effect the Applicability or the Operability of the Function which will continue to protect the health and safety of the public.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
02-22 A	~~Not Used~~ INSERT 2-22-A	~~N/A~~ YES	~~N/A~~ YES	~~N/A~~ Yes	~~N/A~~ Yes Q 3.3-43
02-23 A	This change revises ACTIONS [14, ~~27, 27a~~, 34, ~~and 34a~~ and] in CTS Table 3.3-3 to clarify that the 12 hour AOT to get to MODE 3 includes 6 hours for restoration followed by a 6 hour shutdown to MODE 3.	No, already in CTS.	No, already in CTs.	Yes	Yes CA 3.3-002 CA 3.3-009
02-24 LS19	At CPSES, the Required Action for an inoperable SI sequencer is revised per ITS 3.8.1 Condition F to extend the time available for restoration of an inoperable SI sequencer from 6 hours to 12 hours.	No	Yes	No	No
02-25 A	~~The requirement for manual actuation of a single main steam isolation valve has been moved from CTS Table [3.3-3]. Operability of individual lines is addressed under ITS LCO 3.7.2.~~ Not used.	~~No, retained CTS~~ NA	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA Q 2-25
02-26 LS21	The Required Action for an inoperable Control Room [Isolation] [Manual Initiation, SSPS, or BOP-ESFAS] channel is modified to provide appropriate actions with the number of OPERABLE channels [two] less than the number of Required Channels.	No, not in CTS.	Yes	Yes	Yes
02-27 A	The CPSES Action Statement for the loss of offsite power - start motor driven auxiliary feedwater pumps is modified to require that if the Action Statements are not satisfied, the plant be taken to MODE 4 to exit the LCO Applicability. The CTS requires that MODE 5 be entered; however, because the function is only applicable in MODES 1, 2, and 3, the LCO would be exited prior to MODE 5, and MODE 5 entry is not a requirement.	No	Yes	No	No
02-28 LG	This change moves DCPP information inserted by LA 114/115 on containment spray and safety injection coincidence to the Bases.	Yes	No	No	No

Insert for Q 3.3-63

Enclosure 3B page 18
Insert 2-22-Aa

The CTS [#] note of Table [3.3-3] is technically equivalent to ITS note (b), Table 3.3.2-1.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

INSERT 2-50-LGa

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
02-48 ~~LS28~~	~~A new Action 15 is added and applied to function 7.a.2) and 7.b.1) that allows the affected Emergency Diesel Generator to be declared inoperable and requires entry into Specification 3.8.1.1 when more than one relay per bus is inoperable. Current ACTION 16 does not address the above situation and requires entry into LCO 3.8.3. This change is consistent with NUREG-1431.~~ Not used	~~Yes~~ NA	~~No, see CN 2-23-LS23.~~ NA	~~No, see CN 2-18-LS31.~~ NA	~~No, see CN 2-18-LS31.~~ NA DC 3.3-001 Q 3.3-63 Q 3.3-79 Q 2-08
03-01 A	The requirements of this specification [CTS 3.3.3.1] are moved to [four] separate specifications in the improved TS. The RCS Leakage Detection requirements are moved to improved TS 3.4.15. [The Fuel Building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [The Containment Ventilation Isolation is moved to improved TS 3.3.6.] INSERT 3-02-M	Yes	Yes	Yes	Yes Q 3-02
03-02 M	The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.6-1, 3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.	Yes	Yes	Yes	Yes
03-03 LG	The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10CFR70.24; however, there is no requirement for [them] to be in the Technical Specifications [as criticality monitors. They are retained, however, as initiators of the Iodine Removal mode of the FHBVS for a fuel handling accident until RM-45A/B are installed].	Yes, moved to FSAR.	No, not in CTS.	Yes, moved to USAR Section 16.3.	Yes, moved to FSAR Section 16.3.
03-04 M	This change adds the Applicability for movement of irradiated fuel assemblies. The CTS Applicability of "All" MODES does not cover the movement of irradiated fuel assemblies when the core is offloaded.	Yes	Yes	No, see CN 3-12-A.	Yes

INSERT 2-51-LGa
INSERT 2-56-LS48a

[illegible]

Insert for Q 3.3-63

Enclosure 3B page 23
Insert 2-50-LGa

02-50 LG	The CTS [##] note of Table [3.3-3] is revised to move the descriptive material related to the automatic blocking of the interlock to the ITS 3.3.2 Bases.	Yes	Yes	Yes	Yes

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-66 **APPLICABILITY:** DC

REQUEST:

The DCPP-specific MODE 4 requirement of the CTS is retained and added to Table 3.3.2-1 for SI actuated by Containment Pressure High 1.

Comment: A separate condition should be created to handle shutdown tracks for functions with required applicability that includes Modes 1, 2, 3, and 4.

FLOG RESPONSE: A separate shutdown track is created via CONDITION O that requires entry into MODE 5 for function 1.c. if the inoperable channel cannot be tripped. ACTIONS D and E are restored to their original NUREG-1431 versions that require a shutdown to MODE 4 if the applicable functions cannot be tripped or bypassed, respectively, in the allowed time. A new CONDITION P is created that requires a shutdown to MODE 5 for those functions required to be OPERABLE in MODE 1 through 4 and requiring that the trip be bypassed. JFD 3.3-114 is created to justify the addition of these two new ACTIONS. The Bases is revised to move the affected functions to the applicable ACTIONS.

ATTACHED PAGES:

Encl. 5A	3.3-30, 3.3-31, 3.3-35, 3.3-39, 3.3-41, and 3.3-42
Encl. 5B	B 3.3-113, B 3.3-114, B 3.3-115, B 3.3-122
Encl. 6A	9
Encl. 6B	17 of 21

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One train inoperable.	C.1 -----------NOTE----------- One train may be bypassed for up to 4 hours for surveillance testing provided the other train is OPERABLE. -------------------------	B
	Restore train to OPERABLE status.	6 hours
	OR	
	C.2.1 Be in MODE 3.	12 hours
	AND	
	C.2.2 Be in MODE 5.	42 hours
D. One channel inoperable.	D.1 ----------NOTE---------- The inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing of other channels. -----------------------	3.3-37 B
	Place channel in trip.	6 hours
	OR	
	D.2.1 Be in MODE 3.	12 hours
	AND	
	D.2.2 Be in MODE 4.	18 hours
	~~AND~~ e	~~3.3-00~~ d
	~~D.2.3 Be in MODE 5 for Function 1.c.~~	Q ~~42 hours~~ Q 3.3-66

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. One Containment Pressure channel inoperable.	E.1 ----------NOTE--------- One additional channel may be bypassed for up to 4 hours for surveillance testing. ------------------------	B
	Place channel in bypass.	6 hours
	OR	
	E.2.1 Be in MODE 3.	12 hours
	AND	
	E.2.2 Be in MODE 4.	18 hours
	~~AND~~	
	~~E.2.3 Be in MODE 5 for Functions 2.c and 3.b.(3).~~ e	~~42 Hours~~ e ~~3.3-00~~ e Q 3.3-66
F. One channel or train inoperable.	F.1 Restore channel or train to OPERABLE status.	48 hours
	OR	
	F.2.1 Be in MODE 3.	54 hours
	AND	
	F.2.2 Be in MODE 4.	60 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
N. One channel inoperable.	N.1 Restore channel to OPERABLE status. OR N.2.1 Declare associated pump or valve inoperable. AND N.2.2 Comply with REQUIRED ACTION of 3.7.5 or 3.7.2 as applicable.	48 hours 3.3-58 Immediately Immediately

INSERT 5A-O&P

Q 3.3-66

3.3 - 114

[illegible]

[illegible]

Insert for Q 3.3-66

Enclosure 5A page 3.3-35
Insert 5A-O&P

O. One channel inoperable	------------NOTE------------------------- The inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing of other channels. ---	
	O.1 Place channel in trip.	6 hours
	<u>OR</u>	
	O.2.1 Be in MODE 3.	12 hours
	<u>AND</u>	
	O.2.3 Be in MODE 5.	42 hours
P. One channel inoperable	------------NOTE------------------ One additional channel may be bypassed for up to 4 hours for surveillance testing. -------------------------------------	
	P.1 Place channel in bypass.	6 hours
	<u>OR</u>	
	P.2.1 Be in MODE 3.	12 hours
	<u>AND</u>	
	P.2.3 Be in MODE 5.	42 hours

Table 3.3.2-1 (page 1 of ~~8~~ 11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
1. Safety Injection						
a. Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA	NA
b. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
c. Containment Pressure – High ~~1~~	1,2,3,4	3	~~D~~ E	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[3.86]~~ ~~3.3~~ psig 3.12	3.3-66 B-PS Q 3.3-66 DC AU-005 ≤ ~~[3.6]~~ 3.0 psig DC AU-005
d. Pressurizer Pressure – Low	1,2,3(b)	~~[3]~~ 4	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[1839]~~ ~~1844.4~~ psig 1847.5	B B-PS 1850 psig 3.3-55 Q 3.3-55
e. Steam Line Pressure						
(1) Low	1,2,3(b)	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[635]~~ ~~594.6~~(c) psig 597.6	≥ ~~[675]~~ 600(c) psig DC AU-005 B-PS
(2) NOT USED ~~High Differential Pressure Between Steam Lines~~	~~1,2,3~~	~~3 per steam line~~	~~D~~	~~[SR 3.3.2.1]~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≤ [106] psig~~	3.3-01 ~~≤ [97] psig~~
f. NOT USED ~~High Steam Flow in Two Steam Lines~~	~~1,2,3(d)~~	~~2 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~(e)~~	3.3-01 ~~(f)~~
~~Coincident with T_{avg} – Low Low~~	~~1,2,3(d)~~	~~1 per loop~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [550.6]°F~~	~~≥ [553]°F~~

Table 3.3.2-1 (page ~~2~~3 of 8~~11~~)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
~~1. Safety Injection (continued)~~						3.3-01
g. NOT USED ~~High Steam Flow in Two Steam Lines~~	~~1,2,3(d)~~	~~2 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~(e)~~	~~(f)~~
~~Coincident with Steam Line Pressure—Low~~	~~1,2,3(d)~~	~~1 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [635](c) psig~~	~~≥ [675] psig~~
2. Containment Spray						3.3-53
a. Manual Initiation	1,2,3,4	2 ~~per train~~with. 2 ~~trains~~coincident switches	B	SR 3.3.2.8	NA	NA
b. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
c. Containment Pressure				3.3-114 Q 3.3-66		3.3-66 B-PS DC ALL-005
~~High — 3 (High~~ High~~)~~	1,2,3,4	4	~~E~~ P	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[12.31]~~ ~~22.3~~ 22.12 psig	≤ ~~[12.05]~~ 22 psig 3.3-55 Q 3.3-55
NOT USED ~~High — 3 (Two Loop Plants)~~	~~1,2,3~~	~~[3] sets of [2]~~	~~E~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≤ [12.31] psig~~	3.3-01 ~~≤ [12.05] psig~~

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

~~(c) Time constants used in the lead/lag controller are t_1 ≥ __ seconds and t_2 ≤ __ seconds~~ B

~~(d) Above the P-12 (T_{avg}—Low Low) interlock.~~

~~(e) Less than or equal to a function defined as ΔP corresponding to [44]% full steam flow below [20]% load, and ΔP increasing linearly from [44]% full steam flow at [20]% load to [114]% full steam flow at [100]% load, and ΔP corresponding to [114]% full steam flow above 100% load.~~ 3.3-01 3.3-01

~~(f) Less than or equal to a function defined as ΔP corresponding to [40]% full steam flow between [0]% and [20]% load and then a ΔP increasing linearly from [40]% steam flow at [20]% load to [110]% full steam flow at [100]% load.~~ 3.3-01

Table 3.3.2-1 (page ~~3~~4 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
3. Containment Isolation						
a. Phase A Isolation						
(1) Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
(3) Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					
b. Phase B Isolation						3.3-53
(1) Manual Initiation	1,2,3,4	2 ~~per train~~with, 2 ~~trains~~ coincident switches	B	SR 3.3.2.8	NA	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
(3) Containment Pressure ~~High -~~ 3 ~~(High High)~~	1,2,3,4	4	~~E~~ P	3.3-114 3.3-66 SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	22.12 ≤ ~~[12.31]~~ ~~22.3~~ psig	DC ALL-005 B-PS 3.3-66 3.3-55 3.3-55 ≤ ~~[12.05]~~ 22 psig
4. Steam Line Isolation						3.3-58 PS
a. Manual Initiation	1,2^(1),3^(1)	~~2~~ 1/valve	~~F~~ N	SR 3.3.2.8	NA	NA

E

BASES

ACTIONS

C.1, C.2.1 and C.2.2 (continued)

- Phase B Isolation~~; and~~
- ~~Automatic Switchover to Containment Sump.~~

This action addresses the train orientation of the SSPS and the master and slave relays. If one train is inoperable, 6 hours are allowed to restore the train to OPERABLE status. The specified Completion Time is reasonable considering that there is another train OPERABLE, and the low probability of an event occurring during this interval. If the train cannot be restored to OPERABLE status, the unit must be placed in a MODE in which the LCO does not apply. This is done by placing the unit in at least MODE 3 within an additional 6 hours (12 hours total time) and in MODE 5 within an additional 30 hours (42 hours total time). The Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

The Required Actions are modified by a Note that allows one train to be bypassed for up to ~~[~~4~~]~~ hours for surveillance testing, provided the other train is OPERABLE. This allowance is based on the reliability analysis assumption of WCAP-10271-P-A (Ref. 8) that 4 hours is the average time required to perform channel surveillance.

D.1, D.2.1, and D.2.2

Remove strike-out (retain function) e

~~DC ALL-002~~ e

Condition D applies to:

- SI ~~Containment Pressure—High 1;~~ Retain strike out & delete DC ALL-002 Additions
- SI Pressurizer Pressure—Low ~~(two, three, and four loop units)~~; Q 3.3-66
- SI Steam Line Pressure—Low; DC ALL-002
- ~~Steam Line Differential Pressure—High;~~
- ~~High Steam Flow in Two Steam Lines Coincident With T_{avg}—Low Low or Coincident With Steam Line Pressure—Low;~~

(continued)

BASES

ACTIONS

D.1, D.2.1, and D.2.2 (continued)

- ~~Containment Pressure - High 2,~~ High - High Q 3.3-66

Steam Line Isolation -

- Steam Line Pressure - Negative Rate - High; DC ALL-002
- Steam Line Pressure - Low;
- ~~High Steam Flow Coincident With Safety Injection Coincident With T_{avg} - Low Low;~~
- ~~High High Steam Flow Coincident With Safety Injection;~~
- ~~High Steam Flow in Two Steam Lines Coincident With T_{avg} - Low Low;~~ Add strike out

Auxiliary Feedwater - DC ALL-002

- SG Water level - Low Low ~~(two, three, and four loop units)~~; ~~and~~
- ~~SG Water level - High High (P-14) (two, three, and four loop units)~~.

If one channel is inoperable, 6 hours are allowed to restore the channel to OPERABLE status or to place it in the tripped condition. Generally this Condition applies to functions that operate on two-out-of-three logic (excluding pressurizer pressure - low ~~and containment pressure high - high~~). Therefore, failure of one channel places the Function in a two-out-of-two configuration. ~~One~~ The inoperable channel must be tripped to place the Function in a one-out-of-~~three~~two configuration that satisfies redundancy requirements. Insert Bases (3) DC 3.3-005 Q 3.3-66

which is two-out-of-four due to its control input function

Failure to restore the inoperable channel to OPERABLE status or place it in the tripped condition within 6 hours requires the unit be placed in MODE 3 within the following 6 hours and MODE 4 within the next 6 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. In MODE 4, these Functions are no longer required OPERABLE.

The Required Actions are modified by a Note that allows the inoperable channel or one additional channel to be bypassed for up to ~~[4]~~ hours for surveillance testing of other channels. The 6 hours allowed to restore the channel to OPERABLE status or to place the inoperable channel in the tripped condition, and the 4 hours allowed for testing, are justified in Reference 8.

remove redline Q 3.3.6-1

(continued)

E

BASES

ACTIONS (continued)

E.1, E.2.1, and E.2.2

Condition E applies to:

- ~~Containment Pressure - High;~~ e DC ALL-002
- ~~Containment Spray Containment Pressure - High 3 (High, High) (two, three, and four loop units); and~~ Add strike out Q 3.3-66
- ~~Containment Phase B Isolation Containment Pressure - High 3 (High, High)~~ e ~~; and~~ does not DC ALL-002
- Steam Line Isolation - Containment Pressure - High-High

This ~~None of these~~ signal ~~s has~~ input to a control function. Thus, two-out-of-three logic is necessary to meet acceptable protective requirements. However, a two-out-of-three design would require tripping a failed channel. This is undesirable because a single failure of the Containment Pressure input would then cause spurious containment spray initiation. Q 3.3-66 DC 3.3-Ed Spurious spray actuation is undesirable because of the cleanup problems presented. Therefore, these channels are designed with two-out-of-four logic so that a failed channel may be bypassed rather than tripped. Note that one channel may be bypassed and still satisfy the single failure criterion. Furthermore, with one channel bypassed, a single instrumentation channel failure will not spuriously initiate containment spray. e ~~The containment spray signal is also interlocked with SI and will not initiate without simultaneous SI and CSAS~~ Containment ~~spray signals~~ ~~DC ALL-002~~

To avoid the inadvertent actuation of containment spray and Phase B containment isolation, the inoperable channel should not be placed in the tripped condition. Instead it is bypassed. e Restoring the channel to OPERABLE status, or DC 3.3-Ed placing the inoperable channel in the bypass condition within 6 hours, is sufficient to assure that the Function remains OPERABLE and minimizes the time that the Function may be in a partial trip condition (assuming the inoperable channel has failed high). The Completion Time is further justified based on the low probability of an event occurring during this interval. Failure to restore the inoperable channel to OPERABLE status, or place it in the bypassed condition within 6 hours, requires the unit be placed in MODE 3 within the following 6 hours ~~and MODE 4 within the next 6 hours~~ ~~and MODE 5 within 42 hours~~. e The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. In MODE 4 5, these Functions are no longer required OPERABLE. e

Remove Strike Out Q 3.3-66

Remove Strike Out

ACTIONS

(continued)

BASES

ACTIONS

L.1, L.2.1 and L.2.2 (continued)

LCO 3.0.3 to initiate shutdown actions in the event of a complete loss of ESFAS function. If the interlock is not in the required state (or placed in the required state) for the existing unit condition, the unit must be placed in MODE 3 within the next 6 hours and MODE 4 within the following 6 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. Placing the unit in MODE 4 removes all requirements for OPERABILITY of these interlocks.

~~M.1 or M.2~~ ← INSERT ACTION M Bases   Q 3.3-46

~~Condition M applies to the Trip Time Delay (TTD) for the SG low-low water level actuation of AFW pumps. With one or more TTD circuitry delay timers inoperable, 6 hours are allowed to adjust the threshold power level for no time delay to 0% RTP or to place the affected SG water level low-low channel in trip. The specified Completion Time is reasonable considering the nature of these Functions, the available redundancy, and the low probability of an event occurring during this interval. If the TTD threshold power level cannot be adjusted or the affected SG water level low-low channel cannot be placed in trip, the unit must be placed in MODE 3 within the next 6 hours and MODE 4 within the following 6 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power in an orderly manner and without challenging unit systems. In MODE 4, the unit does not have any analyzed transients or conditions that require the explicit use of the protection function noted above.~~

N.1 or N.2 and N.2.2

Condition N applies to:

- Manual Initiation of Steam Line Isolation; and
- Manual Initiation of Auxiliary Feedwater.

If a channel is inoperable, 48 hours is allowed to return the channel to an OPERABLE status. The specified Completion Time is reasonable considering the nature of these functions, the available redundancy, and the low probability of an event occurring during this interval. If the Function cannot be returned to OPERABLE status, the associated pump or valve shall be declared inoperable immediately and the REQUIRED ACTION of 3.7.5 or 3.7.2 as applicable complied with immediately.

INSERT 5B-O & P   Q 3.3-66

(continued)

[illegible]

Insert for Q 3.3-66

Enclosure 5B page B 3.3-122
Insert 5B-O & P

O.1 or O.2.1, O.2.2 and O.2.3

Condition O applies to Safety Injection - Containment Pressure – High.

If one channel is inoperable, 6 hours are allowed to restore the channel to OPERABLE status or to place it in the tripped condition. Failure of one channel places the function in a two-out-of-two configuration since the trip coincidence is two-out-of-three. The inoperable channel must be tripped to place the Function in a one-out-of-two configuration that satisfies redundancy requirements.

Failure to restore the inoperable channel to OPERABLE status or place it in the tripped condition within 6 hours requires the unit be placed in MODE 3 within 12 hours and MODE 5 in 42 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. In MODE 5, these functions are no longer required OPERABLE.

The Required Actions are modified by a Note that allows the inoperable channel or one additional channel to be bypassed for up to 4 hours for surveillance testing of other channels. The 6 hours allowed to restore the channel to OPERABLE status or to place the inoperable channel in the tripped condition, and the 4 hours allowed for testing, are justified in Reference 8.

P.1 or P.2.1, P.2.2 and P.2.3

Condition P applies to:

- Containment Spray - Containment Pressure – High-High.
- Containment Isolation - Phase B Isolation - Containment Pressure - High-High.

Neither of these signals has input to a control function. Thus, two-out-of-three logic is necessary to meet acceptable protective requirements. However, a two-out-of-three design would require tripping a failed channel. This is undesirable because a single failure would then cause spurious containment spray initiation. Spurious spray actuation is undesirable because of the cleanup problems presented. Therefore, these channels are designed with two-out-of-four logic so that a failed channel may be bypassed rather than tripped. Note that one channel may be bypassed and still satisfy the single failure criterion. Furthermore, with one channel bypassed, a single instrumentation channel failure will not spuriously initiate containment spray. The containment spray signal is also interlocked with SI and will not initiate without simultaneous SI and containment spray signals.

[illegible]

[illegible]

To avoid the inadvertent actuation of containment spray and Phase B containment isolation, the inoperable channel should not be placed in the tripped condition. Instead it is bypassed. Restoring the channel to OPERABLE status, or placing the inoperable channel in the bypass condition within 6 hours, is sufficient to assure that the Function remains OPERABLE and minimizes the time that the Function may be in a partial trip condition (assuming the inoperable channel has failed high). The Completion Time is further justified based on the low probability of an event occurring during this interval.

Failure to restore the inoperable channel to OPERABLE status or place it in the tripped condition within 6 hours requires the unit be placed in MODE 3 within 12 hours, and MODE 5 in 42 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. In MODE 5, these Functions are no longer required OPERABLE.

The Required Actions are modified by a Note that allows the inoperable channel or one additional channel to be bypassed for up to 4 hours for surveillance testing of other channels. The 6 hours allowed to restore the channel to OPERABLE status or to place the inoperable channel in the tripped condition, and the 4 hours allowed for testing, are justified in Reference 8.

Not Applicable to DCPP. See Conversion Comparision Table (Enclosure 6B) DC 3.3-004

CHANGE NUMBER	JUSTIFICATION
3.3-109	~~Not used.~~ INSERT 3.3-109 Q 8-11
3.3-110	~~Not used.~~ INSERT 3.3-110 DCALL-005
3.3-111	~~This change adds a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the current TS and is an enhancement which is easily performed and provides additional assurance that the interlocks are functioning correctly.~~ DC 3.3-004
3.3-112	~~Not used.~~ INSERT 3.3-112 Q 12-05(3.6)
3.3-113	~~Not used.~~ INSERT 3.3-113 Q 2-05(2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114 Q 3.3-66
3.3-115	Not used.
3.3-116	ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps. The function exists, but is not credited in any accident analysis and is not part of ESFAS Function 6 in the CTS.
3.3-117	This change to ITS 3.3.1 Condition R reflects current TS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.
3.3-118	This change is for consistency with ITS 3.7.10 Condition [G].
3.3-119	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-120	~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.~~ Not used. Q 3.3-120
3.3-121	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-122	ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring the RTBs to be opened with ACTIONS that ensure subcriticality is maintained (i.e., by initiating action to fully ~~inserting~~ insert all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135. TR 3.3-006
3.3-123	This change deletes ACTION L.2 and renumbers L.3 since the requirement to close the unborated water source valves is not in the CTS and is not part of the current licensing basis. This new requirement is not applicable to DCPP which has a licensed dilution accident evaluation (refer to License Amendment 28/27). The current licensing bases in accordance with NUREG 0800, Section 15.4.6 provides adequate assurance that a dilution event will be recognized and arrested in a timely fashion. DC 3.3-Ed
3.3-124	Consistent with the current TS Table 4.3-1, Note [15], the note for ITS SR 3.3.1.4 is modified, a note is added to Table 3.3.1-1, and Function 20 are modified to clarify that the SR is required for the reactor trip bypass breaker local manual shunt trip only. The Bases for SR 3.3.1.14 clearly state that SR 3.3.1.14 includes the automatic undervoltage trip of the reactor trip bypass breakers. The Note (k) added to Table 3.3.1-1, Function 20 clarifies the Applicability of the undervoltage and shunt trip mechanisms to include those functions of the reactor trip bypass breakers when in use.

[illegible]

[illegible]

Insert for Q 3.3-66

Enclosure 6A page 9
Insert 3.3-114

Consistent with the DCPP CTS, this change creates ACTION O and P with shutdown tracks to MODE 5 for those functions requiring OPERABILITY in MODES 1 through 4 and requiring that the inoperable function be tripped or bypassed as applicable. New ACTION O is identical to ITS ACTION D, and ACTION P is identical to ITS ACTION E except for the requirement to shutdown to MODE 5 instead of MODE 4. These new ACTIONS allow the format of the ITS to be retained.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-103	Function 11 of ITS Table 3.3.1-1 is revised per the DCPP CTS to reflect the current plant design of only a two loop trip. With this revision Condition O is no longer used, since it was only applicable to the single loop trip.	Yes	No	No	No
3.3-104	CONDITION A of ITS 3.3.5 is revised to incorporate CTS ACTIONS 15 and 16. CONDITIONS B and C are not used.	Yes	No, see CN 3.3-131.	No, see CN 3.3-99.	No, see CN 3.3-99.
3.3-105	Function 4.d.(2) of ITS Table 3.3.2-1 and notes (c) and (h) are revised per the DCPP CTS.	Yes	No, see CN 3.3-12.	No, see CN 3.3-12.	No, see CN 3.3-12.
3.3-106	Delete ISTS Required Actions B.2.2 and U.2.2. These Required Actions are not needed due to exiting the APPLICABILITY via Required Actions B.2.1 and U.2.1.	Yes	Yes	Yes	Yes
3.3-107	Based upon operating experience to change Thermal Power in a controlled fassion without challenging the plant and consistent with the CTS which does not have a Completion Time for restoring one channel to OPERABLE ststus; but does pervent going above P-10 until it is restored, the Completion Time for ITS 3.3.1 Required Actions F.1 and F.2 should be increased to 24 hours.	Yes	Yes	Yes	Yes
3.3-108	~~Not used.~~ INSERT 3.3-108(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 20-11(20)
3.3-109	~~Not used~~ INSERT 3.3-109(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 8-11
3.3-110	~~Not used~~ INSERT 3.3-110(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q DCALL 005
3.3-111	Add a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the CTS.	~~Yes~~ No, Adopted ISTS.	Yes	No-see CN 3.3-48.	Yes DC 3.3-004
3.3-112	~~Not used~~ INSERT 3.3-112(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 12-05(3.6)
3.3-113	~~Not used~~ INSERT 3.3-113(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 2-05(2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 3.3-66

[illegible]

Insert for Q 3.3-66

Enclosure 6B page 17 of 21
Insert 3.3-114(a)

Consistent with the DCPP CTS, this change creates ACTION O and P with shutdown tracks to MODE 5 for those functions requiring OPERABILITY in MODES 1 through 4 and requiring that the inoperable function be tripped or bypassed.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-68 **APPLICABILITY:** DC

REQUEST:

A DCPP-specific note is added to state that CONDITION D is only applicable in MODES 1 and 2. A new CONDITION H is added to require entering MODE 3 if CONDITION B is not met when entered due to not meeting CONDITION D.

Comment: The justification for requiring hydrogen monitoring to be operable only during MODES 1 and 2 conflicts with JFD 12-02-M which adds Mode 3 for Hydrogen Analyzer instrument channels. Correct the CTS & ITS markups by adding Mode 3 for hydrogen monitor. Revise ITS Table 3.3.3.1-1 action for Hydrogen monitors to Action F and delete Action H in the LCO.

FLOG RESPONSE: This change has been deleted and the ITS changed to require the hydrogen monitors to be operable in MODES 1, 2 & 3. In addition, Table 3.3.3-1 Function 11 has been revised to reinstate CONDITION F as applicable to the hydrogen monitors and new CONDITION H has been deleted.

ATTACHED PAGES:

Encl. 5A	3.3-53 and 3.3-55
Encl. 5B	B 3.3-146 and B 3.3-147
Encl. 6A	6
Encl. 6B	11 of 21

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION
~~NOTE~~ ~~Only applicable in MODES 1 and 2~~ D. Two hydrogen monitor channels inoperable.	D.1 Restore one hydrogen monitor channel to OPERABLE status.	72 hours ~~3.3-68~~ Q 3.3-68
E. Required Action and associated Completion Time of Condition C or D not met.	E.1 Enter the Condition referenced in Table 3.3.3-1 for the channel.	Immediately
F. As required by Required Action E.1 and referenced in Table 3.3.3-1.	F.1 Be in MODE 3. <u>AND</u> F.2 Be in MODE 4.	6 hours 12 hours
G. As required by Required Action E.1 and referenced in Table 3.3.3-1.	G.1 Initiate action in accordance with Specification 5.6.8.	Immediately
~~H. As required by Required Action E.1 and referenced in Table 3.3.3-1.~~	~~H.1 Be in MODE 3.~~	~~6 hours~~ ~~3.3-68~~ Q 3.3-68

SURVEILLANCE REQUIREMENTS

-------------------------------NOTE-------------------------------
SR 3.3.3.1 and SR 3.3.3.2 apply to each PAM instrumentation Function in Table 3.3.3-1.

SURVEILLANCE		FREQUENCY
SR 3.3.3.1	Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days

Table 3.3.3-1 (page 1 of 2)
Post Accident Monitoring Instrumentation

FUNCTION	REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION E.1	
1. ~~Power Range~~ Neutron Flux (Wide Range NIS)	2	F	3.3-71
~~2. Source Range Neutron Flux~~	~~2~~	~~F~~	3.3-01
2. Steam Line Pressure	2 per steam generator	F	3.3-71
3. Reactor Coolant System (RCS) Hot Leg Temperature—T_{hot} (Wide Range)	2 (1 per loop in two loops)	F	3.3-71
4. RCS Cold Leg Temperature—T_{cold} (Wide Range)	2 (1 per loop in two loops)	F	3.3-71
5. RCS Pressure (Wide Range)	2	F	
6. Reactor Vessel Water Level Indication System	2	G	3.3-71
7. a) Containment Recirculation Sump Water Level (~~Wide~~ Narrow Range)	2	F	3.3-71
b) Containment Reactor Cavity Sump Level—Wide Range	2	F	3.3-71
8. a) Containment Pressure (Wide Range)	2	F	
b) Containment Pressure (Normal Range)	2	F	3.3-71
9. Containment Isolation Valve Position	2 per penetration flow path (a) (b)	F	
10. Containment Area Radiation (High Range)	2	G	
11. Hydrogen Monitors	2	Remove Strike Out	~~3.3-68~~ Q 3.3-68
12. Pressurizer Level	2	F	

BASES

ACTIONS

C.1 (continued)

of one inoperable channel of the Function limits the risk that the PAM Function will be in a degraded condition should an accident occur. Condition C is modified by a Note that excludes hydrogen monitor channels.

D.1

Condition D applies when two hydrogen monitor channels are inoperable. Required Action D.1 requires restoring one hydrogen monitor channel to OPERABLE status within 72 hours. The 72 hour Completion Time is reasonable based on the backup capability of the Post Accident Sampling System to monitor the hydrogen concentration for evaluation of core damage and to provide information for operator decisions. Also, it is unlikely that a LOCA (which would cause core damage) would occur during this time. ~~Condition D is modified by a Note that limits the APPLICABILITY for the Containment Hydrogen Concentration monitor to MODES 1 and 2.~~ 2

Q 3.3-68

E.1

Condition E applies when the Required Action and associated Completion Time of Condition C or D are not met. Required Action E.1 requires entering the appropriate Condition referenced in Table 3.3.3-1 for the channel immediately. The applicable Condition referenced in the Table is Function dependent. Each time an inoperable channel has not met any Required Action of Condition C or D, and the associated Completion Time has expired, Condition E is entered for that channel and provides for transfer to the appropriate subsequent Condition.

F.1 and F.2

If the Required Action and associated Completion Time of Conditions C or D are not met and Table 3.3.3-1 directs entry into Condition F, the unit must be brought to a MODE where the requirements of this LCO do not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours and MODE 4 within 12 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions

(continued)

BASES

ACTIONS

F.1 and F.2 (continued)

from full power conditions in an orderly manner and without challenging unit systems.

G.1

strike out

DC3.3-E2

~~At this unit.~~ Alternate means of monitoring Reactor Vessel Water Level and Containment Area Radiation ~~have been~~ ~~will be~~ developed and ~~tested~~ ~~demonstrated pior to use~~. These alternate means may be temporarily installed if the normal PAM channel cannot be restored to OPERABLE status within the allotted time. If these alternate means are used, the Required Action is not to shut down the unit but rather to follow the directions of Specification 5.6.8, in the Administrative Controls section of the TS. The report provided to the NRC should discuss the alternate means used, describe the degree to which the alternate means are equivalent to the installed PAM channels, justify the areas in which they are not equivalent, and provide a schedule for restoring the normal PAM channels.

~~H.1~~

Q3.3-68

~~If the Required Action and associated Completion Time of Conditions D is not met and Table 3.3.3-1 directs entry into Condition H, the unit must be brought to a MODE where the requirements of this LCO do not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours.~~

~~The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.~~

SURVEILLANCE REQUIREMENTS

A Note has been added to the SR Table to clarify that SR 3.3.3.1 and SR 3.3.3.~~3~~2 apply to each PAM instrumentation Function in Table 3.3.3-1.

SR 3.3.3.1

Performance of the CHANNEL CHECK once every 31 days ensures that a gross instrumentation failure has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus,

(continued)

CHANGE NUMBER	JUSTIFICATION
3.3-68	Not used. ~~A Note is added to state that CONDITION D is only applicable in MODES 1 and 2. A new CONDITION H is added to require entering MODE 3 if CONDITION B is not met when entered due to not meeting CONDITION D. These changes are per the CTS.~~ Q 3.3-68
3.3-69	The phrase "...that is ~~not~~ normally energized" is deleted per the CTS. All of the instrumentation listed is normally energized at power. CA 3.3-012 DC ALL-003
3.3-70	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-71	This change revises Table 3.3.3-1 per the reviewers note to update CTS PAM instruments per the requirements of Reg. Guide 1.97.
3.3-72	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-73	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-74	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-75	The CHANNEL FUNCTIONAL TEST is substituted for the COT per current licensing basis.
3.3-76	Consistent with the current design and TS, a Trip Actuating Device Operational Test (TADOT) is not required for any of the functions explicitly listed in Table 3.3.6-1; therefore, the associated Surveillance Requirement is deleted. Note that a TADOT is required in accordance with LCO 3.3.2 for functions 3.a.1 and 2.a, as referenced in the Table.
3.3-77	Containment Vent Isolation is initiated by the ESFAS Phase "A" isolation signals. As such, the number of required channels and required surveillances for the manual initiation of Containment Vent Isolation are captured by the requirements for Phase "A" isolation in the ESFAS tables. INSERT 3.3-77 Q 3.3-77
3.3-78	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-79	This change adds APPLICABILITY columns to ITS Tables 3.3.6-1 and 3.3.7-1 to reflect current TS with varying Functional Applicabilities. This change is consistent with the format used for the RTS and ESFAS instrumentation in the ITS and is a clearer method to present varying Applicabilities from the current TS. These changes are administrative format changes that insert the Applicabilities from the current TS into Tables 3.3.6-1 and 3.3.7-1. This change is consistent with travelerTSTF-161. INSERT 3.3-79 Q 3.3-79
3.3-80	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-81	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-82	The CONDITIONS, REQUIRED ACTIONS, etc. are revised per the current licensing basis. The plant FBACS does not perform any accident mitigation functions except during the fuel handling accident
3.3-83	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-84	The Note of SR 3.3.4.4 is deleted since Table 3.3.4-1 does not have a neutron detector specified per the current TS.
3.3-85	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-65	A Note is added to the steam generator water level - high-high trip function to reflect the CPSES design and CTS. In the CPSES design, only three channels of the four steam generator water level signals provide input to this trip function. Therefore, in order to satisfy the single failure criterion, if one of these three channels is used as input to the Steam Generator Water Level Control System, its associated bistable must be placed in the tripped state.	No	Yes	No	No
3.3-66	The DCPP-specific MODE 4 requirement of the CTS is retained and added to Table 3.3.2-1 for SI actuated by Containment Pressure High-High, Containment Pressure High. INSERT 3.3-66(b)	Yes	No	No	No CA 3.3-012
3.3-67	In PAMS, add CPSES-specific operability requirements and Required Actions for the T-hot and T-cold indications consistent with both the current licensing basis and the intent of NUREG-1431. If a T-hot indication is unavailable, equivalent information is available from the Core Exit Temperature indication which is also a RG 1.97 variable. Similarly, if a T-cold indication is unavailable, equivalent information may be derived through the use of the steam generator pressure and steam tables, because the RCS cold leg temperature closely follows the steam generator saturation temperature.	No	Yes	No	No
3.3-68 Not used.	~~A DCPP-specific Note is added to state that CONDITION D is only applicable in MODES 1 and 2. A new CONDITION H is added to require entering MODE 3 if CONDITION D is not met when entered due to not meeting CONDITION D.~~	~~Yes~~ NA	~~No~~ NA	~~No~~ NA	~~No~~ NA Q 3.3-68 DC ALL-003
3.3-69	The phrase "...that is ~~not~~ normally energized" is deleted per the CTS. All of the instrumentation listed is normally energized at power.	Yes	No, adopted ITS format.	No, adopted ITS format	No, adopted ITS format, CA 3.3-012
3.3-70	The PAM instrumentation list is modified to reflect the CPSES design and CTS.	No, see CN 3.3-71.	Yes	No, see CN 3.3-21.	No, see CN 3.3-21.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-71 **APPLICABILITY:** DC

REQUEST:

This DCPP-specific change revises Table 3.3.3-1 per the reviewers note to update CTS PAM instruments per the requirements of Reg. Guide 1.97 and revises Conditions A and C to account for those functions with only one required channel.

Comment: Wording of condition to "at least one valid channel OPERABLE" uses terminology that is not easily understood. It could mean that it is possible to have an invalid channel that is OPERABLE. Revise the ITS to adopt ISTS.

Need to work on a common solution to the problem of single channel PAM functions.

FLOG RESPONSE: The applicability of this change to CONDITION A and C is deleted and the ISTS wording has been adopted.

The only single channel PAM functions are Steam Generator (SG) water level wide range and Auxiliary Feedwater (AFW) flow rate. These two functions have only one instrument per SG. Even though channel redundancy is not available, diverse indications are available via the SG water level narrow range, SG pressure, reactor coolant system pressure and temperature as well as other means of monitoring core heat removal. Having one wide range SG level and one AFW flow indicator is consistent with NUREG-0737 Item II.E.1.2 for Westinghouse plants. Loss of the single channel for these two functions would be addressed via Condition C.

In response to the reviewer's informal comment, the Bases for LCO 3.3.3, Functions 3 and 4, has been revised to clarify the instrument requirements associated with T-hot and T-cold.

ATTACHED PAGES:

Encl. 5A	3.3-52
Encl. 5B	B 3.3-133, B 3.3-135, B 3.3-145

3.3 INSTRUMENTATION

3.3.3 Post Accident Monitoring (PAM) Instrumentation

LCO 3.3.3 The PAM instrumentation for each Function in Table 3.3.3-1 shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTIONS

------------------------------------NOTES------------------------------------

1. LCO 3.0.4 is not applicable.
2. Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one required channel inoperable~~, but at least one valid channel OPERABLE~~. e	A.1 Restore required channel to OPERABLE status.	30 days ~~3.3-71~~ e Q 3.3-71
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action in accordance with Specification 5.6.8.	Immediately
C. ----------NOTE---------- Not applicable to hydrogen monitor channels. ------------------------ One or more Functions with ~~two~~one required channels ~~inoperable~~OPERABLE. e	C.1 Restore one channel to OPERABLE status.	7 days ~~3.3-71~~ e Q 3.3-71

Delete Strike Out

BASES

LCO (continued)

Furthermore, OPERABILITY of two channels allows a CHANNEL CHECK during the post accident phase to confirm the validity of displayed information. ~~More than two channels may be required at some units if the unit specific Regulatory Guide 1.97 analyses (Ref. 1) determined that failure of one accident monitoring channel results in information ambiguity (that is, the redundant displays disagree) that could lead operators to defeat or fail to accomplish a required safety function.~~

The exception to the two channel requirement is Containment Isolation Valve (CIV) Position, Auxiliary Feedwater (AFW) flow indication and Steam Generator (SG) water level (wide range). ~~In this case~~For the CIV position, the important information is the status of the containment penetrations. The LCO requires one position indicator for each active CIV. This is sufficient to redundantly verify the isolation status of each isolable penetration either via indicated status of the active valve and prior knowledge of a passive valve, or via system boundary status. If a normally active CIV is known to be closed and deactivated, position indication is not needed to determine status. Therefore, the position indication for valves in this state is not required to be OPERABLE.

~~Both AFW flow indication and SG water level provide indication of of the status of decay heat removal capability via the SGs. Sufficient water must be contained in the SGs in order to assure that heat removal can be accomplished through boiling in the SG. Although only one channel exists for each Function, the channels provide diverse indication of the same capability.~~ INSERT B 3.3.3-1

Q 33-71

Table 3.3.3-1 ~~provides a list of variables typical of those identified by the unit specific Regulatory Guide 1.97 (Ref. 1) analyses. Table 3.3.3-1 in unit specific TS should list~~includes instrumentation which is classified as either ~~all~~ Type A and/or Category I variables in accordance with ~~identified by the unit specific~~ Regulatory Guide 1.97~~analyses, as amended by the NRC's SER~~, FSAR Section 7.5, and SER 14.

Type A and Category I variables are required to meet Regulatory Guide 1.97 Category I (Ref. 2) design and qualification requirements for seismic and environmental qualification, single failure criterion, utilization of emergency standby power, immediately accessible display, continuous readout, and recording of display, except as exempted in SSER 31. Regulatory Guide 1.97, for certain Functions, requires that the Function be recorded on at least one channel. For these channels where direct and immediate trend or transient information is not essential for operator information, or both channels would be recorded per Regulatory Guide 1.97, the loss of the recorder is not considered to be a loss of Function. However, the recorder should be returnded to service as soon as possible and an alternate means

(continued)

[illegible]

Insert for Q 3.3-71

Enclosure 5B page B 3.3-133
Insert B 3.3.3-1

For SG water level (wide range) and AFW flow rate there is one indicator for each SG. Even though redundancy is not available, diverse indications are available. Loss of a single indicator would be addressed via Condition C for these two instrument functions.

There is one wide range water level indicator for each steam generator in the main control room. Wide range steam generator level measurement meets the intent of the single failure criterion for Category 1 variables by virtue of independent, diverse variables. Auxiliary feedwater (AFW) flow, narrow range SG level, SG pressure, reactor coolant pressure, and reactor coolant temperature indications are diverse variables which can be used to assist in determining whether adequate core cooling is provided. The wide range SG level is used to assist in determining the loss of the heat sink. Having one wide range level indicator, in conjunction with one AFW flow indicator, per SG is consistent with NUREG-0737 Item II.E.1.2 for Westinghouse plants.

There is one AFW flow rate indicator for each SG in the main control room. Diverse indications are available from one wide range level indicator and three narrow range level indicators per SG. Each of the four AFW flow indicators is powered by a different source. Since only two of four SGs are required to establish a heat sink for the RCS, flow indication to at least two intact SGs is assured even if a single failure is assumed.

BASES

LCO (continued)

1. ~~Power Range and Source Range~~ Neutron Flux (Wide Range NIS)

~~Power Range and Source Range~~ Neutron Flux indication is provided to verify reactor shutdown. The ~~two ranges are~~ wide range NIS is necessary to cover the full range of flux that may occur post accident.

Neutron flux is used for accident diagnosis, verification of subcriticality, and diagnosis of positive reactivity insertion.

2. Steam Line Pressure

Steam pressure is used to determine if a high energy secondary line rupture has occurred and the availability of the steam generators as a heat sink. It is also used to verify that a faulted steam generator is isolated. Steam pressure may be used to ensure proper cooldown rates or to provide a diverse indication for natural circulation cooldown.

3, 4. Reactor Coolant System (RCS) Hot and Cold Leg Temperatures

RCS Hot and Cold Leg Temperatures are Category I variables provided for verification of core cooling and long term surveillance.

Q 3.3-71

The intent of requiring this instrumentation is to be able to monitor ΔT. Therefore, to have an OPERABLE RCS inlet and outlet temperature, they should be in the same primary loop. If the outlet temperature is inoperable core exit thermocouples can be used in conjuction with RCS inlet temperature to determine ΔT.

RCS hot (outlet) and cold (inlet) leg temperatures are used to determine RCS subcooling margin. RCS subcooling margin will allow termination of safety injection (SI), if still in progress, or reinitiation of SI if it has been stopped. RCS subcooling margin is also used for unit stabilization and cooldown control. RCS hot leg temperature also provides a temperature compensating signal for the reactor vessel level instrumentation system (RVLIS).

In addition, RCS cold leg temperature is used in conjunction with RCS hot leg temperature to verify the unit conditions necessary to establish natural circulation in the RCS. The RCS cold leg temperature also provides a temperature input signal for the low temperature overpressure protection (LTOP) system.

Reactor outlet temperature inputs to the Reactor Protection System are provided by two fast response resistance elements and associated transmitters in each loop. The channels provide indication over a range of 32°F to 700°F.

(continued)

BASES

ACTIONS

A.1 (continued) Q3.3.G-1

The Completion Time(s) of the inoperable channel(s) of a Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

Condition A applies when one or more Functions have one required channel that is inoperable ~~but at least one OPERABLE remaining channel~~. Required Action A.1 requires restoring the inoperable channel to OPERABLE status within 30 days. The 30 day Completion Time is based on operating experience and takes into account the remaining OPERABLE channel (or in the case of a Function that has only one required channel, other non-Regulatory Guide 1.97 instrument channels to monitor the Function), the passive nature of the instrument (no critical automatic action is assumed to occur from these instruments), and the low probability of an event requiring PAM instrumentation during this interval. Q3.3-71

INSERT ACTION A.1 Q 3.3-71

B.1

Condition B applies when the Required Action and associated Completion Time for Condition A are not met. This Required Action specifies initiation of actions in Specification 5.6.8, which requires a written report to be submitted to the NRC immediately. This report discusses the results of the root cause evaluation of the inoperability and identifies proposed restorative actions. This action is appropriate in lieu of a shutdown requirement since alternative actions are identified before loss of functional capability, and given the likelihood of unit conditions that would require information provided by this instrumentation.

INSERT ACTION C.1 Q 3.3-71

C.1

Remove Strike Out

Condition C applies when one or more Functions have ~~two inoperable required~~ no OPERABLE channels ~~(i.e., two channels inoperable in the same Function)~~. Required Action C.1 requires restoring one channel in the Function(s) to OPERABLE status within 7 days. The Completion Time of 7 days is based on the relatively low probability of an event requiring PAM instrument operation and the availability of alternate means to obtain the required information. Continuous operation with ~~two~~ no required channels ~~inoperable~~ OPERABLE in a Function is not acceptable because the alternate indications may not fully meet all performance qualification requirements applied to the PAM instrumentation. Therefore, requiring restoration

(continued)

[illegible]

[illegible]

Insert for Q 3.3-71

Enclosure 5B page B 3.3-145
Insert ACTION A.1

If the single channel functions for AFW flow or SG wide range water level are inoperable, entry into ACTION C is required because the function is then unavailable.

Insert ACTION C.1

Condition C also applies to the single channel AFW flow and the SG wide range water level functions, since with the loss of these single channels, the function is unavailable.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-76 **APPLICABILITY:** DC

REQUEST:

Consistent with the current design and TS, a trip actuating device operational test (TADOT) is not required for any of the functions explicitly listed in Table 3.3.6-1; therefore, the associated surveillance requirement is deleted. Note that a TADOT is required in accordance with LCO 3.3.2 for functions 3.a.1 and 2.a, as referenced in the Table.

Comment: Revise Table 3.3.6-1 to include the Manual Initiation Function. Without the Manual Initiation function in ITS 3.3.6 (Containment Purge and Exhaust Isolation Instrumentation) is subject to misinterpretation by the operators. For example, if ESFAS SR 3.3.2.8 (Manual Containment Isolation TADOT) is not successfully performed, then operators need to apply the ITS usage rules (Section 1.0) and declare LCO 3.3.6 inoperable and enter the appropriate actions.

FLOG RESPONSE: DCPP has no manual initiation switch for CVI in the control room. The CVI is manually initiated when SI, Phase "A" isolation, or Phase "B" isolation functions are manually initiated. Table 3.3.6-1 has been revised to reference LCO 3.3.2 "ESFAS Instrumentation" Functions 1.a, 3.a.(1), and 3.b.(1). See response to Comment Number Q 3.3-77.

ATTACHED PAGES:

None

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-77 **APPLICABILITY:** DC

REQUEST:

Containment vent isolation is initiated by the ESFAS Phase "A" isolation signals. As such, the number of required channels and required surveillances for the manual initiation of Containment Vent Isolation are captured by the requirements for Phase "A" isolation in the ESFAS tables.

Comment: Manual initiation applicability for purge instrumentation is not included for all conditions, as stated by this JFD, with Phase A Isolation instrumentation in ESFAS because the specified conditions for CORE ALTERATIONS and handling irradiated fuel assemblies is omitted. Note that condition B for manual functions would otherwise refer to a function that is not required to be operable. This may lead operators to an incorrect operability understanding for the manual purge isolation. Revise T3.3.6-1 to include the manual function.

The criteria in 10 CFR 50.36a and the CR design would require the inclusion of the manual switch in the ITS.

FLOG RESPONSE: DCPP has no manual initiation switch for CVI in the control room. The CVI is manually initiated when SI, Phase "A" isolation, or Phase "B" isolation functions are manually initiated. Table 3.3.6-1 has been revised to include the above information and to reference LCO 3.3.2 "ESFAS Instrumentation" Function 1.a, 3.a.(1), and 3.b.(1). The CTS does not require manual initiation of CVI for MODE 6. CVI initiation, via ESFAS Instrumentation Functions 1.a, 3.a.(1), and 3.b.(1), is only required for MODES 1 through 4. JFD 3.3-77 has been revised to clarify these requirements and the Bases for LCO 3.3.1 ACTION B has been revised to note that the inoperability of any of the manual initiation functions that initiate CVI potentially affect LCO 3.3.6 and the appropriate ACTION should be entered.

ATTACHED PAGES:

Encl. 5A	3.3-68
Encl. 5B	B 3.3-112, B 3.3-164
Encl. 6A	6

Table 3.3.6-1 (page 1 of 1)
Containment Purge and Exhaust Isolation Instrumentation

3.3-79

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT	
~~1.~~ ~~NOT USED~~ ~~Manual Initiation~~ (Remove Strike Out)	INSERT 3.3-77	2	~~SR 3.3.6.6~~	~~NA~~ (Remove Strike Out)	3.3-77 Q 3.3-77
2. Automatic Actuation Logic and Actuation Relays	1, 2, 3, 4, 6, ~~and~~ (a) And (b)	2 trains 1	SR 3.3.6.2 SR 3.3.6.3 SR 3.3.6.5	NA	3.3-32 Q 3.3-32
3. Containment Ventilation Exhaust Radiation	1, 2, 3, 4, ~~6, and~~ (a) And (b)				PS Q 3.3-79
~~a.~~ Gaseous ~~A1~~ ~~A/B~~ /Particulate	~~1, 2, 3, 4,~~ ~~(a)~~	~~[1]~~ 2 1(b)	SR 3.3.6.1 SR 3.3.6.4 SR 3.3.6.7 ~~SR 3.3.6.8~~	~~≤ [2 x background]~~ Per ODCM	3.3-32 ~~3.3-31~~ Q 3.3-55
~~b. Particulate~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
~~c. Iodine~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
~~d. Area Radiation~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
4. Containment Isolation – Phase A	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 3.a., for all initiation functions and requirements.				Q 3.3-79

(a) during CORE ALTERATIONS ~~and~~ during movement of irradiated fuel assemblies within containment. 3.3-~~31~~ 79 Q 3.3-31

~~(b) only one monitor is required to be OPERABLE in MODE 6 or during movement of irradiated fuel assemblies within containment.~~ 3.3-~~31~~ 79

(b)

Q 3.3-32

[illegible]

Insert for Q 3.3-77

Enclosure 5A page 3.3-68
Insert 3.3-77

Containment ventilation isolation is considered manually initiated when SI, Phase "A" isolation, or Phase "B" isolation functions are manually initiated. Refer to LCO 3.3.2 "ESFAS Instrumentation," Function 1.a, 3.a.(1), and 3.b.(1), respectively for required channels and surveillance requirements.

BASES

ACTIONS (continued)

B.1, B.2.1 and B.2.2

Condition B applies to manual initiation of:

- SI;
- Containment Spray;
- Phase A Isolation; and
- Phase B Isolation.

This action addresses the train orientation of the SSPS for the functions listed above. If a channel or train is inoperable, 48 hours is allowed to return it to an OPERABLE status. Note that for containment spray and Phase B isolation, failure of one or both channels in one train renders the train inoperable. Condition B, therefore, encompasses both situations. The specified Completion Time is reasonable considering that there are two automatic actuation trains and another manual initiation train OPERABLE for each Function, and the low probability of an event occurring during this interval. If the train cannot be restored to OPERABLE status, the unit must be placed in a MODE in which the LCO does not apply. This is done by placing the unit in at least MODE 3 within an additional 6 hours (54 hours total time) and in MODE 5 within an additional 30 hours (84 hours total time). The allowable Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without ~~challenging unit systems~~.

INSERT B3.3.2 ACTION B

Q 3.3-77

C.1, C.2.1 and C.2.2

Condition C applies to the automatic actuation logic and actuation relays for the following functions:

- SI;
- Containment Spray;
- Phase A Isolation;

(continued)

[illegible]

Insert for Q 3.3-77

Enclosure 5B page B 3.3-112
Insert B 3.3.2 ACTION B

With the inoperability of manual initiation of Safety Injection, Containment Isolation Phase A or Phase B, the CVI which is initiated from that function is also inoperable and the appropriate LCO 3.3.6 ACTION should be entered.

BASES

BACKGROUND (continued)

~~purge~~ ventilation isolation, which closes ~~both inner and outer~~ the containment ventilation isolation valves ~~in the Mini Purge System and the Shutdown Purge System~~. These systems are described in the Bases for LCO 3.6.3, "Containment Isolation Valves." DC ALL-002

APPLICABLE SAFETY ANALYSES

The safety analyses assume that the containment remains intact with penetrations unnecessary for core cooling isolated early in the event, within approximately 60 seconds. The isolation of the ~~purge~~ containment ventilation valves has not been analyzed mechanistically in the dose calculations, although its ~~rapid~~ isolation using a conservative isolation time is assumed following a LOCA. The containment ~~purge and~~ exhaust ventilation isolation radiation monitors act as backup to the SI signal to ensure closing of the ~~purge and~~ exhaust containment ventilation isolation valves. They are also the primary means for automatically isolating containment in the event of a fuel handling accident or any other source within containment during shutdown. Containment isolation in turn ensures meeting the containment leakage rate assumptions of the safety analyses, and ensures that the calculated accidental offsite radiological doses are below 10 CFR 100 (Ref. 1) limits. DC 3.3-Ed DC 3.3-Ed DC ALL-002

The containment ~~purge and~~ exhaust ventilation isolation instrumentation satisfies Criterion 3 of ~~the NRC Policy Statement~~ 10 CFR 50.36(c)(2)(ii). DC 3.3-Ed

LCO

The LCO requirements ensure that the instrumentation necessary to initiate Containment ~~Purge and~~ Exhaust Ventilation Isolation, listed in Table 3.3.6-1, is OPERABLE. DC 3.3-Ed

1. Manual Initiation

~~NOT USED~~ e INSERT B 3.3.6 G 3.3-77

~~The LCO requires two channels OPERABLE. The operator can initiate Containment Purge Isolation at any time by using either of two switches in the control room. Either switch actuates both trains. This action will cause actuation of all components in the same manner as any of the automatic actuation signals.~~

~~The LCO for Manual Initiation ensures the proper amount of redundancy is maintained in the manual actuation circuitry to ensure the operator has manual initiation capability.~~

~~Each channel consists of one push button and the interconnecting wiring to the actuation logic cabinet.~~

(continued)

[illegible]

Insert for Q 3.3-77

Enclosure 5B page B 3.3-164
Insert B 3.3.6

Containment ventilation isolation is considered manually initiated when SI, Phase "A" or Phase "B" isolation functions are manually initiated. Refer to LCO 3.3.2 "ESFAS Instrumentation," Function 1.a, 3.a.(1), and 3.b.(1), respectively for required channels and surveillance requirements.

CHANGE NUMBER	JUSTIFICATION
	Not used.
3.3-68	~~A Note is added to state that CONDITION D is only applicable in MODES 1 and 2. A new CONDITION H is added to require entering MODE 3 if CONDITION B is not met when entered due to not meeting CONDITION D. These changes are per the CTS.~~ Q 3.3-68
3.3-69	The phrase "...that is ~~not~~ normally energized" is deleted per the CTS. All of the instrumentation listed is normally energized at power. CA 3.3-012 DC ALL-003
3.3-70	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-71	This change revises Table 3.3.3-1 per the reviewers note to update CTS PAM instruments per the requirements of Reg. Guide 1.97.
3.3-72	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-73	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-74	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-75	The CHANNEL FUNCTIONAL TEST is substituted for the COT per current licensing basis.
3.3-76	Consistent with the current design and TS, a Trip Actuating Device Operational Test (TADOT) is not required for any of the functions explicitly listed in Table 3.3.6-1; therefore, the associated Surveillance Requirement is deleted. Note that a TADOT is required in accordance with LCO 3.3.2 for functions 3.a.1 and 2.a, as referenced in the Table.
3.3-77	Containment Vent Isolation is initiated by the ESFAS Phase "A" isolation signals. As such, the number of required channels and required surveillances for the manual initiation of Containment Vent Isolation are captured by the requirements for Phase "A" isolation in the ESFAS tables. INSERT 3.3-77 Q 3.3-77
3.3-78	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-79	This change adds APPLICABILITY columns to ITS Tables 3.3.6-1 and 3.3.7-1 to reflect current TS with varying Functional Applicabilities. This change is consistent with the format used for the RTS and ESFAS instrumentation in the ITS and is a clearer method to present varying Applicabilities from the current TS. These changes are administrative format changes that insert the Applicabilities from the current TS into Tables 3.3.6-1 and 3.3.7-1. This change is consistent with travelerTSTF-161. INSERT 3.3-79 Q 3.3-79
3.3-80	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-81	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-82	The CONDITIONS, REQUIRED ACTIONS, etc. are revised per the current licensing basis. The plant FBACS does not perform any accident mitigation functions except during the fuel handling accident
3.3-83	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-84	The Note of SR 3.3.4.4 is deleted since Table 3.3.4-1 does not have a neutron detector specified per the current TS.
3.3-85	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

[illegible]

Insert for Q 3.3-77

Enclosure 6A page 6
Insert 3.3-77

[For DCPP, the capability to initiate CVI via the Phase A or Phase B ESFAS functions is only required in MODES 1 through 4]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-79 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Add Applicability columns to ITS Tables 3.3.6-1 and 3.3.7-1 to reflect current TS with varying Functional Applicabilities.

Comment: Revise submittal to adopt TSTF-161, Rev 1 format. List "core alterations" applicability and "during handling of irradiated fuel" as separate applicability footnotes.

{DC, WC} The applicability for Containment Purge and Exhaust Isolation is broader than required by CTS 3.3.2. This change is neither identified nor discussed.

{DC} ITS Table 3.3.6-1 applicability for the Containment Radiation Function is duplicated. It is not necessary to provide an applicability statement for function 3 if applicability is provided separately within function 3, in this case for function 3.a.

{DC} The required number of channels for function 3.a under applicability condition (a) is inconsistent with the markup of CTS section 3.3.2.

{CP} Explain the design justification for not including Table3.3.6-1 Note "c" in the applicability for actuation logic and relays. Specified logic must support radiation isolation function in the table. If the logic supports Phase A Isolation (T3.3.6-1, F4) then it should not be listed in this table. A single listing of the logic in ESFAS Table 3.3.2-1 is acceptable.

{CW} CTS T4.3-2 F9a, 9b and 9c shows a markup (strikeout) of applicable conditions without evaluation. Provide a revised markup and evaluation of proposed CTS changes. CTS T3.3-3 F9a, 9b and 9c shows no changes to applicable conditions. These differences are not evaluated.

{CW} CTS T3.3-3 Actions 26 and 26**** are used in ITS T3.3.6-1. Changes to these CTS requirements are neither identified nor evaluated.

FLOG RESPONSE: Comment 1: In response to the first comment, ITS Table 3.3.6-1 has been revised to reflect TSTF-161 Rev. 1. Applicability footnote (a) has been divided into "(a) During CORE ALTERATIONS" and "(b) During movement of irradiated fuel assemblies within containment." No changes to current TS Table 3.3-3 Functional Unit 3.c or to the ITS 3.3.6 Bases are required. For WCGS, DOC 3-20-LS-51 was initiated to revise CTS Table 3.3-6, Functional Unit 1.a, to revise the Mode of Applicability from "All" to "1, 2, 3, 4, During CORE ALTERATIONS, During movement of irradiated fuel assemblies within containment."

The mark-up of STS LCO 3.3.7 Applicability in Enclosure 5A shows the strike-through of "During CORE ALTERATIONS" under JFD 3.3-79. That JFD has been revised to discuss the rationale behind the strike-through. Since ITS Table 3.3.7-1 includes all MODES 1-6, the LCO is applicable any time fuel is in the reactor vessel. Since CORE ALTERATIONS involve activities conducted while fuel is in the vessel, including this requirement in the LCO Applicability is unnecessarily redundant given the definitions of CORE ALTERATION and MODE. This same approach was taken in ITS 3.7.10. DCPP has also made changes to the

[illegible]

[illegible]

ITS 3.3.7 Bases to correct and clarify the applicability. No changes were required for other FLOG plants' ITS 3.3.7 Bases.

Comment 2: For the second comment, for DCPP, the CVI is required to be OPERABLE as an ESFAS function in MODES 1 through 4 via function 3.c. of CTS Table 3.3-3. For CTS 3.9.9, the Containment Ventilation Isolation system is required to be OPERABLE during CORE ALTERATIONS and during movement of irradiated fuel. For CTS Table 3.3-6 function 3.a.3) and 3.b.1), the MODE requirements are MODE 6. The requirements for CTS Table 3.3-6 function 3.a.3) and 3.b.1) are revised via new DOC 03-22-LS20 to revise the MODE 6 requirement to MODE 6 during CORE ALTERATIONS only. It does not make sense to require the instrumentation to be OPERABLE when the system it actuates is not required to be OPERABLE. Note that DOC 02-05-M already added during movement of irradiated fuel. These CTS requirements were consolidated in ITS 3.3.6.

Comment 3: For the third comment, the duplicate applicability has been deleted and the sub-function "a" has been incorporated under the main function "3." In addition, the title of the function has been revised to "Containment Ventilation Exhaust Radiation Gaseous/particulate" since for DCPP a single monitor accomplishes the monitoring for gaseous, particulate and iodine radiation functions for detection of a fuel handling accident as explained in the ITS 3.3.6 bases. This title is also consistent with the CTS terminology.

Comment 4: CTS Table 3.3-3 has been marked up for clarity to show the MODE 6 and channel requirements of Table 3.3-6. In addition, a new DOC 2-51-LG is used to move the descriptive channel identifiers to the ITS 3.3.6 bases. Changes have been made to the 3.3.7 Bases to clarify the LCO applicability.

Comment 5: For CPSES, other changes to ITS Table 3.3.6-1 are also addressed in response to this question. The footnote (a) has been incorporated into table 3.3.6-1, Functional Unit 1 directly, rather than by reference. Subsequent footnotes have been re-lettered. Further, the notation describing the strike-out of STS Functional Units 3.b., 3.c. and 3.d has been revised to reference JFD 3.3-79, rather than JFD 3.3-73, as contained in the original CPSES submittal.

Comments 6 and 7: These comments were resolved during meetings with NRC staff on September 16 and 17, 1998. However, Reference 5 is silent on the resolution of comment 7. Changes to CTS Table 3.3-3 ACTION 26 for ESFAS Functional Units 9.a, 9.b, and 9.c are identified on page 3/4 3-21 and Insert 3/4 3-21 in Enclosure 2 and are evaluated under DOCs 1-04-LG, 1-43-A, 2-16-LS-12, and 2-26-LS-21 (see also responses to comments on the last two DOCs). No DOC is needed for the **** note in CTS Table 3.3-3 since that note is consistent with ITS 3.0.4 (i.e., 3.0.4 does not apply in MODES 5 and 6).

ATTACHED PAGES:

Encl. 2	3/4 3-17, 25, 33, 37 and 39
Encl. 3A	18 and 20
Encl. 3B	23 and 26
Encl. 4	NSHC Contents and Insert NSHC LS20
Encl. 5A	Traveler Status Sheet and page 3.3-68
Encl. 5B	B 3.3-163, B 3.3-175
Encl. 6A	6

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

DC ALL-002

01-43-A

01-04-LG

FUNCTIONAL UNIT	~~TOTAL NO. OF~~ REQUIRED CHANNELS	~~CHANNELS TO TRIP~~	~~MINIMUM CHANNELS OPERABLE~~	APPLICABLE MODES	ACTION	
3. Containment Isolation (Continued)						
2) Automatic Actuation Logic and Actuation Relays	2	~~1~~	~~2~~	1, 2, 3, 4	14	
3) Containment Pressure-High-High	4	~~2~~	~~3~~	1, 2, 3, 4	17	
c. Containment Ventilation Isolation						2 ~~02-20-A~~ Q 3.3-7
1) Automatic Actuation Logic and Actuation Relays	2 1	~~1~~	~~2~~	1, 2, 3, 4, 6 ~~during CORE ALTERATIONS, during movement of irradiated fuel assemblies within containment.~~ and	18, 37	3-22-LS20 03-14-LS29 02-05-M Q 2-05
2) Deleted						
3) Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.					Q 3.3-79 3-22-LS20
4) Containment Ventilation Exhaust Radiation-High ~~(RM-44A and 44B)~~	2 1	~~1~~	~~2~~	1, 2, 3, 4, ~~during CORE ALTERATIONS and~~ 6 during movement of irradiated fuel assemblies within containment.	18, 37	03-14-LS29 02-05-M 02-51-LG Q 3.3-79
4. Steam Line Isolation						
a. Manual	1 manual switch/steam line	~~1 manual switch/steam line~~	~~1 manual switch/operating steam line~~	1, 2[a], 3[a], 4	24	02-07-LS11 02-38-LS35

~~TAB10.4A~~

~~Unit 1 Amendment No. 103~~
~~Unit 2 Amendment No. 102~~
~~July 2, 1995~~

TABLE [illegible] (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

02-01-A

DC 3.3-E2

02-05-M

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES	
3. Containment Isolation (Continued)			
c. Containment Ventilation Isolation			
1) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	
2) Deleted			
3) Safety Injection	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.		
4) Containment Ventilation Exhaust Radiation-High ~~(RM-44A and 44B)~~	Per the ODCP		2-ab-LG 3.3-79
4. Steam Line Isolation			
a. Manual	N.A.	N.A.	
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	
c. Containment Pressure-High-High	≤ 22 psig	≤ ~~22.3~~ 22.12 psig	DC ALL-005
d. Steam Line Pressure-Low	≥ 600 psig (Note 1)	≥ ~~594.6~~ 597.6 psig (Note 1)	DC ALL-005

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALI-BRATION	CHANNEL OPERA-TIONAL TEST	TRIP ACTUATING DEVICE OPERA-TIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~
3. Containment Isolation				DC ALL-001				Q 1-23
a. Phase "A" Isolation								
1) Manual	N.A.	N.A.	N.A.	R 24 (9)	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							Q 1-23
b. Phase "B" Isolation				DC ALL-001				
1) Manual	N.A.	N.A.	N.A.	R 24 (9)	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
3) Containment Pressure-High-High	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	DC ALL-005 ~~1, 2, 3, 4~~ 01-23-A
c. Containment Ventilation Isolation								02-~~20-A~~ 05-A Q 2.05 (3.3)
1) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
2) Deleted								
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							DC ALL-005
4) Containment Ventilation Exhaust Radiation-High ~~(RM-44A and 44B)~~	S	R(6) 24	Q(2)	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~ 02-51LG

Q 3.3-79
Q 3.32

01-23-A
02-35-A

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

INSTRUMENT	MINIMUM REQUIRED CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	ACTION
1. Fuel Handling Building (New) Manual	2	**	NA	32**
a. Storage Area				
1) Spent Fuel Pool	1	***	≤ 75 mR/hr	30 & 32**(a)
2) New Fuel Storage	1	***	≤ 15 mR/hr	30 & 32*(a)
b. Gaseous Activity Fuel Handling Building Ventilation Mode Change(b)	12	***	Per the ODCP	32**
2. Control Room Ventilation Mode Change	2***			
a. Manual Initiation	2	All, and during movement of irradiated fuel assemblies	NA	34, 36
b. Automatic Actuation ~~Logic and Actuation~~ Relays	2		NA	
c. Control Room Atmosphere Intake Radiation Monitors	2 strike out		≤ 2 mR/hr	
3. Containment				
a. Gaseous Activity				
1) Deleted				
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31
3) Containment Venti-lation Isolation ~~(RM-44A or 44B)~~	1	6 during CORE ALTERATIONS, and during movement of irradiated fuel assemblies in containment	Per the ODCP	33, 37
b. Particulate Activity				
1) Containment Venti-lation Isolation ~~(RM-44A or 44B)~~	1	6 during movement of irradiated fuel assemblies in containment	Per the ODCP	33, 37
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31

~~*With fuel in the spent fuel pool or new fuel storage vault.~~

**~~With irradiated fuel in the spent fuel pool.~~ During movement of irradiated fuel assemblies in the fuel handling building.

~~***One channel for each normal intake to the Control Room Ventilation System (common to both units).~~

~~(a)Action 32 is not applicable to the Fuel Storage Area Monitors following installation of RM-45A and 45B.~~

~~(b)The requirements for Fuel Handling Building Ventilation Mode Change are applicable following installation of RM-45A and 45B.~~

Q 3.3-82
DC 3.3-Ed
Q 3-08
Q 2-05 (3.3)
Q 3.3-79
Q 2-05 (3.3)
Q 3.3-79

01-43-A
03-01-A
03-08-M
03-21-LS52
03-03-LG
03-07-LS16
03-07-LS16
03-21-LS52
03-01-A
03-04-M
03-08-M
03-15-M
Q 3-08
03-10-LG
03-01-A
03-22-LS20
Q 3.3-79
03-01-A
02-05-M
03-14-LS29
02-51-LG
02-05-M
03-14-LS29
02-51-LG
03-01-A
03-03-LG
03-07-LS16
03-10-LG
~~03-01-A~~
03-01-A
03-21-LS52
Q 3.3-82

RADIATION MONITORING INSTRUMENTATIO[illegible] PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

	CHANNEL CHECK	CHANNEL CALIBRATION	ACTUATION LOGIC TEST	ADOT	CHANNEL FUNCTIONAL TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~	
									01-44-A
1. Fuel Handling Building									
(New) Manual	NA	NA	NA	R(c)	NA	NA	NA		03-01-A 03-08-M
a. Storage Area									
1) Spent Fuel Pool	S	R	NA	NA	Q	NA	NA	*	
2) New Fuel Storage	S	R	NA	NA	Q	NA	NA	*	
b. Gaseous Activity Fuel Handling Building Ventilation Mode Change~~(a)~~	S	R	NA	NA	Q	NA	NA	*	03-21-LS52 Q 3-3-82
2. Control Room Ventilation Mode Change	S	R			Q			All	03-01-A
a. Manual Initiation	NA	NA	NA	R(c)	NA	NA	NA		03-08-M
b. Automatic Actuation ~~Logic and Actuation~~ Relays	NA	NA	~~M~~	NA	NA	~~M~~	R		Q 3-08
c. Control Room Atmosphere Air Intake Radiation Monitors	S	R	NA	NA	Q	NA	NA		DC 3.3-Ed
3. Containment									
a. Gaseous Activity									
1) Deleted									
2) RCS Leakage	S	R	NA	NA	Q	NA	NA	~~1, 2, 3, 4~~	DC ALL-005 03-01-A
3) Containment Ventilation Isolation	S	R 24	NA	NA	Q	NA	NA	6	
~~(RM-44A or 44B)~~	S	R			Q				02-51-LG
b. Particulate Activity									Q 3.3-79
1) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	S	R 24	NA	NA	Q	NA	NA	6	DC ALL-002 02-51-LG
2) RCS Leakage	S	R	NA	NA	Q	NA	NA	~~1, 2, 3, 4~~	03-01-A

Add Red line

~~* With fuel in the spent fuel pool or new fuel storage vault.~~ 03-21-LS52

~~(a) The requirements for Fuel Handling Building Ventilation Mode Change are applicable following installation of RM-45A and 45B.~~ Q 3.3-82 03-03-LG 03-01-A

(New) (b) Each train shall be tested at least once every ~~62~~ 31 days on a STAGGERED TEST BASIS. 03-08-M

(New) (c) Verification of setpoint is not required 03-08-M

DC 3.3-Ed

CHANGE NUMBER	NSHC	DESCRIPTION
		CA 3.3-009
02-41	~~LS30~~	Not used. ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~
02-42	~~LS38~~	Not used. ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B)~~ CA 3.3-002
02-43	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-44	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-45	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-46	LS42	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-47	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-48	~~LS28~~	Not used. DC 3.3-001 ~~A new Action 15 is added and applied to Functional Unit 7. a. 2) and 7. b. 1) that allows the affected Emergency Diesel Generator to be declared inoperable and requires entry into Specification 3.8.1.1 when more than one relay per bus is inoperable. Current ACTION 16 does not address the above situation and requires entry into LCO 3.0.3. This change is consistent with NUREG-1431.~~ Q 3.3-63 Q 3.3-79 Q 2-08
INSERT 2-50-LG INSERT 2-51 LG INSERT 2-56-LS48		
03-01	A	The requirements of this specification [CTS 3.3.3.1] are moved to [four] separate specifications in the improved TS. The RCS Leakage Detection requirements are moved to improved TS 3.4.15. [The Fuel Building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [The Containment Ventilation Isolation requirements are moved to improved TS 3.3.6.]
03-02	M	~~The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.6-1, 3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.~~ INSERT 3-02-M Q 3-02
03-03	LG	The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10CFR70.24; however, there is no requirement for [them] to be in the Technical Specifications [as criticality monitors. They are retained, however, as initiators of the Iodine Removal mode of the FHBVS for a fuel handling accident until RM-~~44A~~ 45A and ~~44B~~ 45B are installed in accordance with License Amendment 70/69]. Since Part 70 is invoked in the operating license, these monitors will be retained in the plant design. INSERT 3-03 DC ALL-002 Q 3-03

[illegible]

Insert for Q 3.3-79

Enclosure 3A page 18
Insert 2-51-LG

02-51 LG The channel identifiers RM-44A and B are moved to the ITS Bases for ITS 3.3.6. Moving these details does not effect the Applicability or the Operability of the Function which will continue to protect the health and safety of the public.

CHANGE NUMBER	NSHC	DESCRIPTION
03-11	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-12	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-13	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-14	LS29	This proposed change adds an ACTION and an allowed outage time of 4 hours for one inoperable Containment Ventilation Radiation instrumentation or actuation channel. The CTS via ACTIONS 18 and 33 requires that for one or two instruments or channels inoperable that CTS 3.6.3 or 3.9.9 be entered. The revised TS will require that ITS 3.6.3 or 3.9.4 be entered if the instrument or channel cannot be returned to an OPERABLE status within the revised AOT. This change is consistent with the requirements of NUREG-1431.
03-15	M	This change revises CTS ACTION 34 to require appropriate MODE changes or condition changes for the CRVS with one inoperable normal intake monitor and new ACTION 36 specifies actions for two inoperable normal intake monitors. The CTS requires that if the required ACTIONs for one inoperable CRVS monitor is not met that LCO 3.0.3 be entered. In addition, the CTS does not specify a required action if both monitors are inoperable. NUREG-1431 requires that for the above conditions that appropriate actions be taken to place the plant in acondition of non-APPLICABILITY. These ACTIONs specify a shutdown requirement for MODES 1-4 that is one hour less than LCO 3.0.3, and immediate ACTION for inoperability in MODE 5 or 6, and immediate action for inoperability during fuel movement. These changes are consistent with NUREG-1431. Refer also to CN 03-08-M, CN 03-04-M, and CN 3.3-51.
03-16	A e	NOT USED ~~ITS 3.3.6 for DCPP includes MODES 1-4 and during movement of irradiated fuel assemblies within containment, in addition to MODE 6, in the LCO APPLICABILITY. These requirements are inferred in CTS 3.6.3 and are repeated here for clarity.~~ e DC ALL-002
03-17	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
04-01	R	DCPP LCO 3.3.3.2, Movable Incore Detectors, is relocated to a licensee controlled document, see Attachment 21, page 11.
05-01	R e	Not used ~~DCPP LCO 3.3.3.3, Seismic Instrumentation, is relocated to a licensee controlled document, see LAR 85-07.~~ DC ALL-004

INSERT 3-79 (1)

Q 3-15

INSERT 3-21-LS52

Q 3.3-82

INSERT 3-22-LS20

Q 3.3-79

[illegible]

[illegible]

Insert for Q 3.3-79

Enclosure 3A page 20
Insert 3-22-LS20

In CTS table 3.3-6, the Containment Ventilation Isolation (CVI) system instrumentation is required to be OPERABLE in MODE 6. CTS LCO 3.9.9 only requires the CVI system to be OPERABLE during CORE ALTERATIONS and during movement of irradiated fuel. Because it makes no sense to require the instrumentation to be OPERABLE when the system is not OPERABLE, the MODE 6 requirement for CVI instrumentation is revised to be MODE 6 during CORE ALTERATIONS. The requirement to have the instrumentation OPERABLE during movement of irradiated fuel movement was added via DOC 2-05-M.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
02-48 ~~LS28~~	~~A new Action 15 is added and applied to function 7.a.2) and 7.b.1) that allows the affected Emergency Diesel Generator to be declared inoperable and requires entry into Specification 3.8.1.1 when more than one relay per bus is inoperable. Current ACTION 16 does not address the above situation and requires entry into LCO 3.0.3. This change is consistent with NUREG-1431.~~ Not used	~~Yes~~ NA	~~No, see CN 2-23-LS23.~~ NA	~~No, see CN 2-18-LS31.~~ NA	~~No, see CN 2-18-LS31.~~ NA DC 3.3-001 Q 3.3-63 Q 3.3-79 Q 2-08
03-01 A	The requirements of this specification [CTS 3.3.3.1] are moved to [four] separate specifications in the improved TS. The RCS Leakage Detection requirements are moved to improved TS 3.4.15. [The Fuel Building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [The Containment Ventilation Isolation is moved to improved TS 3.3.6.] INSERT 3-02-A	Yes	Yes	Yes	Yes Q 3-02
03-02 M	The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.6-1, 3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.	Yes	Yes	Yes	Yes
03-03 LG	The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10CFR70.24; however, there is no requirement for [them] to be in the Technical Specifications [as criticality monitors. They are retained, however, as initiators of the Iodine Removal mode of the FHBVS for a fuel handling accident until RM-45A/B are installed].	Yes, moved to FSAR.	No, not in CTS.	Yes, moved to USAR Section 16.3.	Yes, moved to FSAR Section 16.3.
03-04 M	This change adds the Applicability for movement of irradiated fuel assemblies. The CTS Applicability of "All" MODES does not cover the movement of irradiated fuel assemblies when the core is offloaded.	Yes	Yes	No, see CN 3-12-A.	Yes

INSERT 2-50-LG
INSERT 2-51-LG
INSERT 2-56-LS40

[illegible]

Insert for Q 3.3-79

Enclosure 3B page 23
Insert 2-51-LGa

02-51 LG	The DCPP-specific channel identifiers RM-44A and B are moved to the ITS Bases for ITS 3.3.6.	Yes	No	No	No

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
03-15 M	This change revises DCPP CTS ACTION 34 and adds new ACTION 36 to require appropriate MODE changes or condition changes for the CRVS with one or two inoperable normal intake monitors. These actions specify a shutdown requirement for MODES 1-4 that is one hour less than LCO 3.0.3, and immediate action for inoperability in MODE 5 or 6, and immediate action for inoperability during fuel movement. Refer also to CN 03-08-M, CN 03-04-M, and CN 3.3-51.	Yes	No	No	No
03-16 ~~A~~ e Not used	~~ITS 3.3.6 for DCPP includes MODES 1-4 and during~~ movement of irradiated fuel assemblies within containment, in addition to MODE 6, in the LCO Applicability. These requirements are inferred in CTS 3.6.3 and are repeated here for clarity. e	~~Yes~~ e NA	~~No~~ e NA	~~No~~ e NA	~~No~~ e NA Q 3-16 DC ALL-002
03-17 A	The CPSES restrictions on opening of the containment pressure relief valves is moved from the Radiation Monitoring Instrumentation specification in the CTS to ITS 3.6.3 and the ITS Administrative Controls Section 5.5.1 for the ODCM.	No	Yes	No Q 3-01	No
04-01 R	DCPP LCO 3.3.3.2, Movable Incore Detectors, is relocated to a licensee controlled document.	Yes, see Attachment 21, page 11.	No	No	No
05-01 ~~R~~ e	~~DCPP LCO 3.3.3.3, Seismic Instrumentation, is relocated to a licensee controlled document.~~ (Not used)	~~Yes, see LAR 95-07~~ NA	~~No~~ e NA	~~No~~ e NA	~~No~~ NA DC ALL-004
06-01 R	DCPP LCO 3.3.3.4, Meterological Instrumentation, is relocated to a licensee controlled document.	Yes, see Attachment 21, page 13.	No	No	No

INSERT 3-19-LS50(a) Q 3-15 INSERT 3-22-LS20 Q 3.3-79

INSERT 3-21-LS52(a) Q 3.3-82

[illegible]

Insert for Q 3.3-79

Enclosure 3B page 26
Insert 3-22-LS20a

03-20 LS22	The MODE 6 requirement for CVI instrumentation of CTS Table 3.3-6 is revised to be MODE 6 during CORE ALTERATIONS.	Yes	No	No	No

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

[illegible]

[illegible]

[illegible]

Insert for Q 3.3-79

Enclosure 4
Insert NSHC LS20

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS20
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

For CTS 3.9.9, the Containment Ventilation Isolation (CVI) system is required to be OPERABLE during CORE ALTERATIONS and during movement of irradiated fuel. For CTS Table 3.3-6 function 3.a.3) and 3.b.1), the MODE requirement for the CVI instrumentation is MODE 6. The MODE requirement for CTS Table 3.3-6 function 3.a.3) and 3.b.1) CVI instrumentation is revised to be consistent with CTS 3.9.9 and NUREG-1431 LCO 3.3.6. The requirements are changed from MODE 6 to MODE 6 during CORE ALTERATIONS only. It does not make sense to require the instrumentation to be OPERABLE when the system it actuates is not required to be OPERABLE. Note that DOC 02-05-M has already added the requirement for the CVI instrumentation to be OPERABLE during movement of irradiated fuel within containment.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change does not affect any current requirements and only deletes an inappropriate MODE requirement for equipment that is not required to be OPERABLE. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There

[illegible]

will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS20" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

INDUSTRY TRAVELERS APPLICABLE TO SECTION 3.3

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	NA	~~Not~~ NRC approved ~~as of traveler cut-off date.~~ Bases only changes TR 3.3-004
~~TSTF-36, Rev. 2~~	~~Incorporated~~	~~3.3-34~~	Q 3.3-34
TSTF-37, Rev. 1	Not Incorporated	NA	ITS 5.6.8 still addresses PAM reports. Sections after ITS 5.6.7 were not renumbered.
TSTF-51	Not Incorporated	NA	Requires plant-specific reanalysis to establish decay time dependence for fuel handling accident.
~~TSTF-91~~	~~Not Incorporated~~	~~NA~~	~~[Trip Setpoints and] Allowable Values for loss of voltage and degraded voltage will remain in the TS.~~ TR 3.3-005
TSTF-111, Rev. 4	Incorporated	NA	Q 1-03
TSTF-135, Rev. 1	Partially Incorporated 3.3-90 3.3-91 3.3-106	3.3-41, 3.3-44, 3.3-93, 3.3-95, 3.3-122, 3.3-142	~~Traveler is too broad scope in nature; should have been separate travelers. Portions of the traveler that significantly clarify operability requirements have been incorporated.~~ TR 3.3-006
TSTF-161, Rev. 1	Incorporated	3.3-79	Approved by NRC Q 3.3-79
TSTF-168	Incorporated	3.3-43	Approved by NRC. Q 3.3-43
TSTF-169	Incorporated	3.3-42	Approved by NRC. TR 3.3-003
~~WOG-106~~ TSTF-242	Incorporated	3.3-49	Q 3.3-49
~~Proposed Traveler~~ TSTF-246	Incorporated	3.3-107	~~WOG Mini-group Action Item # 45~~ Q 3.3-107

PS

DC 3.3-Ed

Table 3.3.6-1 (page 1 of 1)
Containment Purge and Exhaust Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT	3.3-79
				Remove Strike Out	
~~1.~~ ~~NOT USED~~ e ~~Manual Initiation~~ Remove Strikeout	INSERT 3.3-77	2	~~SR 3.3.6.6~~	~~NA~~	3.3-77 Q 3.3-77
2. Automatic Actuation Logic and Actuation Relays	1, 2, 3, 4, 6, ~~and~~ (a) And (b) e	2 trains 1	SR 3.3.6.2 SR 3.3.6.3 SR 3.3.6.5	NA	3.3-32 Q 3.3-32 PS
3. Containment Ventilation Exhaust Radiation	1, 2, 3, 4, ~~and~~ (a) And (b) e				Q 3.3-79
a. Gaseous ~~R4~~ ~~A/B~~ /Particulate e	~~1, 2, 3, 4~~ (a) e	~~[1]~~ 2 e 1(b)	SR 3.3.6.1 SR 3.3.6.4 SR 3.3.6.7 ~~SR 3.3.6.8~~ e	~~≤ [2 x background]~~ Per ODCM	3.3-32 ~~3.3-31~~ e Q 3.3-55
~~b. Particulate~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
~~c. Iodine~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
~~d. Area Radiation~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~	3.3-32
4. Containment Isolation — Phase A	Refer to LCO 3.3.2. "ESFAS Instrumentation," Function 3.a., for all initiation functions and requirements.				Q 3.3-79

(a) during CORE ALTERATIONS ~~and~~ e during movement of irradiated fuel assemblies within containment. 3.3-~~31~~ 79 Q 3.3-31

(b) ~~(b) only one monitor is required to be OPERABLE in MODE 6 or during movement of irradiated fuel assemblies within containment.~~ e 3.3-~~31~~ 79 e

Q 3.3-32

B 3.3 INSTRUMENTATION

DC 3.3-Ed

B 3.3.6 Containment ~~Purge and~~ Exhaust Ventilation Isolation Instrumentation

BASES

DC 3.3-Ed

BACKGROUND

Containment ~~purge and~~ exhaust ventilation isolation instrumentation closes the containment ventilation isolation valves ~~in the Mini Purge System and the Shutdown Purge System~~. This action in conjunction with a Phase A signal isolates the containment atmosphere from the environment to minimize releases of radioactivity in the event of an accident. The ~~Mini~~ Purge or Vacuum/Pressure Relief System may be in use during reactor operation ~~and the Shutdown Purge System will be in use with the~~ or reactor shutdown.

DC 3.3-Ed

Containment ~~purge and~~ exhaust ventilation isolation initiates on a automatic safety injection (SI) signal through the Containment Isolation—Phase A Function, or by manual actuation of Phase A Isolation. The Bases for LCO 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," discuss these modes of initiation.

(RM 44A AND 44B) Q 3.3-79

~~Four~~ Two radiation monitoring channels are also provided as input to the containment ~~purge and~~ exhaust ventilation isolation. The ~~four~~ two channels measure containment radiation ~~at two locations. One channel is a containment area gamma monitor, and the other three measure radiation in a sample of the containment purge exhaust. The three purge exhaust radiation detectors are of three different types: gaseous, particulate, and iodine monitors. All four~~ in the exhaust duct for fan E-3. Both detectors will respond to ~~most~~ events that release radiation to containment. Both monitors are gaseous activity monitors that will respond to noble gases, particulate and Iodine. The high alarm setpoint is based upon the design basis fuel handling accident source term which does not have a particulate componenet. The actual high alarm setpoint is more than a factor of 500 below the design calculation earliest actuation point. Since the monitors can only be adjusted to one high alarm setpoint and no particulate is expected during a fuel handling accident, a setpoint based on site boundry noble gases is conservative. ~~However, analyses have not been conducted to demonstrate that all credible events will be detected by more than one monitor. Therefore,~~ For the purposes of this LCO the ~~four~~ channels are ~~not considered~~ redundant. ~~Instead, they are treated as four one-out-of-one Functions. Since the purge exhaust monitors constitute a sampling system, various components such as sample line valves, sample line heaters, sample pumps, and filter motors are required to support monitor OPERABILITY.~~ DC 3.3 Ed

~~Each of the purge systems has inner and outer containment isolation valves in its supply and exhaust ducts.~~ A high radiation signal from ~~any one~~ either of the ~~four~~ two channels initiates containment

(continued)

BASES

LCO

2. Automatic Actuation ~~Logic and Actuation~~ Relays (continued) Q 3-08

CRVS

~~restrictive Actions specified for inoperability of the CREFS Functions specify sufficient compensatory measures for this case.~~

Retain Strike out

Remove Strike Out

3. Control Room Radiation

The LCO specifies two required Control Room ~~Atmosphere~~ Normal Intake Radiation Monitors ~~and two required Control Room Air Intake Radiation Monitors at each~~ to ensure that the radiation monitoring instrumentation necessary to initiate the ~~CREFS~~ CRVS pressurization system remains OPERABLE.

~~For sampling systems, channel OPERABILITY involves more than OPERABILITY of channel electronics. OPERABILITY may also require correct valve lineups, sample pump operation, and filter motor operation, as well as detector OPERABILITY, if these supporting features are necessary for trip to occur under the conditions assumed by the safety analyses.~~

Remove Strike Out Q 3-08

~~4. Safety Injection~~

~~Refer to LCO 3.3.2, Function 1, for all initiating Functions and requirements.~~

INSERT B 3.3.7(4)

APPLICABILITY

The ~~CREFS~~ CRVS Functions must be OPERABLE in MODES 1, 2, 3, 4, ~~[and during CORE ALTERATIONS]~~ and movement of irradiated fuel assemblies. The Functions must also be OPERABLE in MODES [5 and 6] when required for a waste gas decay tank rupture accident, or a fuel handling or core alteration accident to ensure a habitable environment for the control room operators. Q 3.3-79

Q 3.3-79

ACTIONS

The most common cause of channel inoperability is outright failure or drift of the bistable or process module sufficient to exceed the tolerance allowed by the unit specific calibration procedures. Typically, the drift is found to be small and results in a delay of actuation rather

(continued)

CHANGE NUMBER	JUSTIFICATION
3.3-68	Not used. ~~A Note is added to state that CONDITION D is only applicable in MODES 1 and 2. A new CONDITION H is added to require entering MODE 3 if CONDITION B is not met when entered due to not meeting CONDITION D. These changes are per the CTS.~~ Q 3.3-68
3.3-69	The phrase "...that is ~~not~~ normally energized" is deleted per the CTS. All of the instrumentation listed is normally energized at power. CA 3.3-012 DC ALL-003
3.3-70	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-71	This change revises Table 3.3.3-1 per the reviewers note to update CTS PAM instruments per the requirements of Reg. Guide 1.97.
3.3-72	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-73	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-74	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-75	The CHANNEL FUNCTIONAL TEST is substituted for the COT per current licensing basis.
3.3-76	Consistent with the current design and TS, a Trip Actuating Device Operational Test (TADOT) is not required for any of the functions explicitly listed in Table 3.3.6-1; therefore, the associated Surveillance Requirement is deleted. Note that a TADOT is required in accordance with LCO 3.3.2 for functions 3.a.1 and 2.a, as referenced in the Table.
3.3-77	Containment Vent Isolation is initiated by the ESFAS Phase "A" isolation signals. As such, the number of required channels and required surveillances for the manual initiation of Containment Vent Isolation are captured by the requirements for Phase "A" isolation in the ESFAS tables. INSERT 3.3-77 Q 3.3-77
3.3-78	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-79	This change adds APPLICABILITY columns to ITS Tables 3.3.6-1 and 3.3.7-1 to reflect current TS with varying Functional Applicabilities. This change is consistent with the format used for the RTS and ESFAS instrumentation in the ITS and is a clearer method to present varying Applicabilities from the current TS. These changes are administrative format changes that insert the Applicabilities from the current TS into Tables 3.3.6-1 and 3.3.7-1. This change is consistent with travelerTSTF-161. INSERT 3.3-79 Q 3.3-79
3.3-80	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-81	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-82	The CONDITIONS, REQUIRED ACTIONS, etc. are revised per the current licensing basis. The plant FBACS does not perform any accident mitigation functions except during the fuel handling accident
3.3-83	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-84	The Note of SR 3.3.4.4 is deleted since Table 3.3.4-1 does not have a neutron detector specified per the current TS.
3.3-85	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

[illegible]

Insert for Q 3.3-79

Enclosure 6A page 6
Insert 3.3-79

, with [] separate footnote[s] for [CORE ALTERATIONS and] fuel movement in ITS Table 3.3.6-1. The "During CORE ALTERATIONS" Applicability in STS 3.3.7 [and ITS 3.3.6] is redundant to including MODES 1-4 [and 6] and was not adopted.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-82 **APPLICABILITY:** DC

REQUEST:

The CONDITIONS, REQUIRED ACTIONS, etc. are revised per the DCPP current licensing basis. The plant FBACS does not perform any accident mitigation functions except during the fuel handling accident.

Comment: CTS markup is missing Actions A.1.2.3.1 and Condition C. Provide the necessary corrections and justification.

Proposed ITS Action 1.2.3.2 has no stated completion time. Provide a revised ITS and the necessary corrections and justifications.

FLOG RESPONSE: CTS ACTION 30 and 32 are applicable to the fuel handling building radiation monitors. ITS ACTION A.1.2.3.1 is part of ACTION 32 via its reference to CTS LCO 3.9.12; however, to clarify the requirements, ACTION 30 has been revised to include ITS ACTION A.1.2.3.1. CONDITION C is included in CTS ACTION 30 directly, and in ACTION 32 via required entry into the Action requirements of CTS LCO 3.9.12.

The completion time has been inserted for ITS ACTION A.1.2.3.1.

The CTS, via notes (a) and (b) in Table 3.3-6, states that the requirements for Fuel Handling Building Ventilation Change are applicable and that ACTION 32 will not be applicable to the Fuel Storage Area Monitors following installation of RM-45A and 45B. The original intent was to install these monitors (RM-45A and 45B) as part of the radiation monitor upgrade (LA 70/69) to improve the reliability of the function. However, since the performance and reliability of the existing Fuel Storage Area Monitors has been improved, and because of the expense of installing these new monitors, the project has been canceled. Since the monitors are not installed and there is no intent to install these monitors, the notes regarding their function will be deleted from the CTS Tables 3.3-6 and 4.3-3 via DOC 3-21-LS52 and will not be incorporated into the ITS. The Fuel Storage Area Monitors will continue to provide initiation of the Fuel handling Building Ventilation Mode Change due to a fuel handling accident.

ATTACHED PAGES:

Encl. 2	3/4 3-37, 3/4 3-38, and 3/4 3-39
Encl. 3A	20
Encl. 3B	26
Encl. 4	NSHC Contents and Insert NSHC LS52
Encl. 5A	3.3-75

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

INSTRUMENT	MINIMUM REQUIRED CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	ACTION
1. Fuel Handling Building (New) Manual	2	**	NA	32**
a. Storage Area				
1) Spent Fuel Pool	1	***	≤ 75 mR/hr	30 & 32* (a)
2) New Fuel Storage	1	***	≤ 15 mR/hr	30 & 32* (a)
b. Gaseous Activity Fuel Handling Building Ventilation Mode Change (b)	12	***	Per the ODCP	32**
2. Control Room Ventilation Mode Change	2***	All, and during movement of irradiated fuel assemblies		34, 36
a. Manual initiation	2		NA	
b. Automatic Actuation ~~Logic and Actuation~~ Relays	2		NA	
c. Control Room Atmosphere Intake Radiation Monitors	2 Strike out		≤ 2 mR/hr	
3. Containment				
a. Gaseous Activity				
1) Deleted				
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31
3) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	1	6 during CORE ALTERATIONS; and during movement of irradiated fuel assemblies in containment	Per the ODCP	33, 37
b. Particulate Activity				
1) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	1	6 during movement of irradiated fuel assemblies in containment	Per the ODCP	33, 37
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31

~~*With fuel in the spent fuel pool or new fuel storage vault.~~

**~~With irradiated fuel in the spent fuel pool.~~ During movement of irradiated fuel assemblies in the fuel handling building.

~~***One channel for each normal intake to the Control Room Ventilation System (common to both units).~~

~~(a)Action 32 is not applicable to the Fuel Storage Area Monitors following installation of RM-45A and 45B.~~

~~(b)The requirements for Fuel Handling Building Ventilation Mode Change are applicable following installation of RM-45A and 45B.~~

Q 3.3-82
03-21-LS52
DC 3.3-E
Q 3-08
03-10-LG
Q 2-05(3.3)
03-22-LS20
Q 3.3-79
02-05-M
02-51-LG

01-43-A
03-01-A
03-08-M
03-03-LG
03-07-LS16
03-07-LS16
03-01-A
03-04-M
03-08-M
03-15-M
03-01-A
03-01-A
03-14-LS29
03-14-LS29
03-01-A
03-03-LG
03-07-LS16
03-10-LG
~~03-01-A~~
03-01-A
03.21-LS52
Q 3.3-82

~~Unit 1 Amendment No. 103~~
~~Unit 2 Amendment No. 102~~
~~July 2, 1995~~

or place one FBVS train in operation in the Iodine Removal mode:

3.3-82

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 30 - With less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, operation may continue for up to 30 days provided an appropriate portable continuous monitor with the same Alarm Setpoint or an individual qualified in radiation protection procedures with a radiation dose rate monitoring device is provided in the fuel storage pool area. Restore the inoperable monitors to OPERABLE status within 30 days or suspend all operations involving fuel movement in the fuel storage pool areas. 01-43-A

ACTION 31 - With the number of OPERABLE channels less than required by the ~~Minimum~~ Required Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1. The provisions of Specification 3.0.4 are not applicable. 03-01-A 01-43-A

ACTION 32 - With the number of OPERABLE channels less than required by the ~~Minimum~~ Required Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12. 01-43-A

ACTION 33 - With the number of OPERABLE channels less than required by the ~~Minimum~~ Required Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9. 01-43-A

ACTION 34 - With the number of OPERABLE channels one less than required by the ~~Minimum~~ Required Channels OPERABLE requirement, within ~~1 hour~~ 7 days initiate and maintain operation of the Control Room Ventilation System in ~~a recirculation~~the pressurization mode with the HEPA filter and charcoal adsorber bank in operation; or when in MODE 1-4 be in MODE 3 in 6 hours and in MODE 5 in 36 hours; or during fuel movement, immediately suspend CORE ALTERATIONS and movement of irradiated fuel assemblies; or when in MODE 5 or 6, immediately initiate actions to restore one CRVS train to OPERABLE status. 01-43-A 03-05-LS14 03-15-M 03-19-LS50 03-15

(New) ACTION 36 - With no OPERABLE channels, immediately place one CRVS train in the pressurization mode and enter the applicable ACTIONS for one train made inoperable by CRVS actuation instrumentation; or when in MODE 1-4 be in MODE 3 in 6 hours and in MODE 5 in 36 hours; or during fuel movement, immediately suspend CORE ALTERATIONS and movement of irradiated fuel assemblies; or when in MODE 5 or 6, immediately initiate actions to restore one CRVS train to OPERABLE status. 03-15-M

(New) ACTION 37 - With the number of OPERABLE channels one less than required by the Required Channels, restore the affected channel to OPERABLE status within 4 hours. 03-14-LS29

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ACTUATION LOGIC TEST	ADOT	CHANNEL FUNCTIONAL TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~	
1. Fuel Handling Building									
(New) Manual	NA	NA	NA	R(d)	NA	NA	NA		03-01-A 03-08-M
a. Storage Area									
1) Spent Fuel Pool	S	R	NA	NA	Q	NA	NA	~~*~~	
2) New Fuel Storage	S	R	NA	NA	Q	NA	NA	~~*~~	
b. Gaseous Activity Fuel Handling Building Ventilation Mode Change ~~(a)~~	S	R	NA	NA	Q	NA	NA	~~*~~	03-21-LS2 Q 3.3-82
2. Control Room Ventilation Mode Change	~~S~~	~~R~~			~~Q~~			~~All~~	03-01-A
a. Manual Initiation	NA	NA	NA	R(d)	NA	NA	NA		03-08-M
b. Automatic Actuation ~~Logic and Actuation~~ Relays	NA	NA	~~NA~~ M(b)	~~NA~~	NA	~~NA~~ M(b)	R		Q 3-08
c. Control Room Atmosphere Air Intake Radiation Monitors	S	R	NA	NA	Q	NA	NA		DC 3.3-Ed
3. Containment									
a. Gaseous Activity									
1) Deleted									
2) RCS Leakage	S	R	NA	NA	Q	NA	NA	~~1, 2, 3, 4~~	DC ALL-005 03-01-A
3) Containment Ventilation Isolation	S	R 24	NA	NA	Q	NA	NA	6	
~~(RM-44A or 44B)~~	~~S~~	~~R~~			~~Q~~				02-51-LG
b. Particulate Activity									
1) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	S	R 24	NA	NA	Q	NA	NA	6	Q 3.3-79 DC ALL-002 02-51-LG
2) RCS Leakage	S	R	NA	NA	Q	NA	NA	~~1, 2, 3, 4~~	03-01-A

Add Redline

~~* With fuel in the spent fuel pool or new fuel storage vault.~~ 03-21-LS2 03-03-LG

~~(a) The requirements for Fuel Handling Building Ventilation Mode Change are applicable following installation of RM-45A and 45B.~~ Q 3.3-82 03-01-A

(New) (b) Each train shall be tested at least once every ~~62~~ 31 days on a STAGGERED TEST BASIS. 03-08-M

(New) (c) Verification of setpoint is not required. 03-08-M

DC 3.3-Ed

CHANGE NUMBER	NSHC	DESCRIPTION
03-11	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-12	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-13	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-14	LS29	This proposed change adds an ACTION and an allowed outage time of 4 hours for one inoperable Containment Ventilation Radiation instrumentation or actuation channel. The CTS via ACTIONS 18 and 33 requires that for one or two instruments or channels inoperable that CTS 3.6.3 or 3.9.9 be entered. The revised TS will require that ITS 3.6.3 or 3.9.4 be entered if the instrument or channel cannot be returned to an OPERABLE status within the revised AOT. This change is consistent with the requirements of NUREG-1431.
03-15	M	This change revises CTS ACTION 34 to require appropriate MODE changes or condition changes for the CRVS with one inoperable normal intake monitor and new ACTION 36 specifies actions for two inoperable normal intake monitors. The CTS requires that if the required ACTIONs for one inoperable CRVS monitor is not met that LCO 3.0.3 be entered. In addition, the CTS does not specify a required action if both monitors are inoperable. NUREG-1431 requires that for the above conditions that appropriate actions be taken to place the plant in acondition of non-APPLICABILITY. These ACTIONs specify a shutdown requirement for MODES 1-4 that is one hour less than LCO 3.0.3, and immediate ACTION for inoperability in MODE 5 or 6, and immediate action for inoperability during fuel movement. These changes are consistent with NUREG-1431. Refer also to CN 03-08-M, CN 03-04-M, and CN 3.3-51.
03-16	A e	NOT USED ~~ITS 3.3.6 for DCPP includes MODES 1-4 and during movement of irradiated fuel assemblies within containment, in addition to MODE 6, in the LCO APPLICABILITY. These requirements are inferred in CTS 3.6.3 and are repeated here for clarity.~~ e DC ALL-002
03-17	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
04-01	R	DCPP LCO 3.3.3.2, Movable Incore Detectors, is relocated to a licensee controlled document, see Attachment 21, page 11.
05-01	R e	Not used ~~DCPP LCO 3.3.3.3, Seismic Instrumentation, is relocated to a licensee controlled document, see LAR 95-07.~~ DC ALL-004

INSERT 3-79 (1)

Q 3-15

INSERT 3-21-LS52

Q 3.3-82

INSERT 3-22-LS20

Q 3.3-79

[illegible]

[illegible]

Insert for Q 3.3-82

Enclosure 3A page 20
Insert 3-21-LS52

The CTS, via notes (a) and (b) in Table 3.3-6, states that the requirements for Fuel Handling Building Ventilation Change are applicable and that ACTION 32 will not be applicable to the Fuel Storage Area Monitors following installation of RM-45A and 45B. The original intent was to install these monitors (RM-45A and 45B) as part of the radiation monitor upgrade (LA 70/69) to improve the reliability of the function. However, since the performance and reliability of the existing Fuel Storage Area Monitors has been improved and because of the expense of installing these new monitors, the project has been canceled. Since the monitors are not installed and there is no intent to install these monitors, the notes regarding their function will be deleted from the CTS Tables 3.3-6 and 4.3-3 via DOC 3-21-LS52, and will not be incorporated into the ITS. The Fuel Storage Area Monitors will continue to provide initiation of the Fuel handling Building Ventilation Mode Change due to a fuel handling accident.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
03-15 M	This change revises DCPP CTS ACTION 34 and adds new ACTION 36 to require appropriate MODE changes or condition changes for the CRVS with one or two inoperable normal intake monitors. These actions specify a shutdown requirement for MODES 1-4 that is one hour less than LCO 3.0.3, and immediate action for inoperability in MODE 5 or 6, and immediate action for inoperability during fuel movement. Refer also to CN 03-08-M, CN 03-04-M, and CN 3.3-51.	Yes	No	No	No
03-16 A e (Not used.)	~~ITS 3.3.6 for DCPP includes MODES 1-4 and during~~ movement of irradiated fuel assemblies within containment, in addition to MODE 6, in the LCO Applicability. These requirements are inferred in CTS 3.6.3 and are repeated here for clarity. e	~~Yes~~ e NA	~~No~~ e NA	~~No~~ e NA	~~No~~ e NA Q 3-16 DC ALL-002
03-17 A	The CPSES restrictions on opening of the containment pressure relief valves is moved from the Radiation Monitoring Instrumentation specification in the CTS to ITS 3.6.3 and the ITS Administrative Controls Section 5.5.1 for the ODCM.	No	Yes	No Q 3-01	No
04-01 R	DCPP LCO 3.3.3.2, Movable Incore Detectors, is relocated to a licensee controlled document.	Yes, see Attachment 21, page 11.	No	No	No
05-01 ~~R~~ e	~~DCPP LCO 3.3.3.3, Seismic Instrumentation, is relocated to a licensee controlled document.~~ (Not used)	~~Yes, see LAR 95-07~~ NA	~~No~~ e NA	~~No~~ e NA	~~No~~ NA DC ALL-004
06-01 R	DCPP LCO 3.3.3.4, Meterological Instrumentation, is relocated to a licensee controlled document.	Yes, see Attachment 21, page 13.	No	No	No

INSERT 3-19-LS50(a) Q 3-15 INSERT 3-22-LS20 Q 3.3-79

INSERT 3-21-LS52(a) Q 3.3-82

[illegible]

Insert for Q 3.3-82

Enclosure 3B page 26
Insert 3-21-LS52a

03-21 LG52	DCPP Notes (a) and (b) are deleted, since RM-45A and 45B are not installed and there is no intent to install them.	Yes	No	No	No

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

[illegible]

[illegible]

[illegible]

Insert for Q 3.3-82

Enclosure 4
Insert NSHC LS52

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS52
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

The CTS, via notes (a) and (b) in Table 3.3-6, states that the requirements for Fuel Handling Building Ventilation Change are applicable and that ACTION 32 will not be applicable to the Fuel Storage Area Monitors following installation of RM-45A and 45B. The original intent of these notes and the associated change was to install these monitors (RM-45A and 45B) as part of the radiation monitor upgrade (LA 70/69) to improve the reliability of the function. However, since the performance and reliability of the existing Fuel Storage Area Monitors has been improved and because of the expense of installing these new monitors, the project has been canceled. Since monitors are not installed and there is no intent to install these monitors, the notes regarding their function will be deleted from the CTS Tables 3.3-6 and 4.3-3 and will not be incorporated into the ITS. The deletion does not effect any requirements for currently installed equipment and only deletes requirements for equipment not installed and not planned for installation. The Fuel Storage Area Monitors will continue to be utilized, with all of the appropriate CTS requirements, to provide initiation of the Fuel handling Building Ventilation Mode Change due to a fuel handling accident.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously

performed accident analyses since no hardware changes are proposed. The proposed change does not affect any current requirements and only deletes requirements for equipment not installed. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change in the control room ventilation system mode of operation will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS52" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one or more channels or trains inoperable.	A.1.1 ~~Place one FBACS train in operation.~~ Restore the inoperable monitors to OPERABLE status. AND A.1.2.1 Install an appropriate portable continuous monitor with the same alarm setpoint. OR A.1.2.2 Station an individual qualified in radiation protection procedures with a dose rate monitoring device in the spent fuel pool area. OR A.1.2.3.1 Place one FBVS train in the Iodine Removal mode. AND A.1.2.3.2 Enter applicable Conditions and Required Actions of LCO 3.7.13, "Fuel Building Air Cleanup System (FBACS)," for one train made inoperable by inoperable actuation instrumentation.	~~7~~30 days 3.3-82 Immediately Immediately Immediately Immediately Q 3.3-82

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-94 **APPLICABILITY:** DC, CP, CA

REQUEST:

ITS 3.3.4 is revised per current TS [3.3.3.2.1] with regard to [HSP] controls.

Comment: This is a proposed generic change that is not approved by the staff. Revise submittal LCO, Table functions, Actions Note 2, Condition A and Required Action A.1 to maintain ISTS format, which if necessary, can be accomplished with a separate table entry for RSS controls.

FLOG RESPONSE: As discussed during meeting with the NRC staff on August 11 through August 14, 1998, the FLOG has modified the ITS markups associated with JFD 3.3-94. WCGS is now adopting the changes associated with JFD 3.3-94. See also the response to Comment Number Q 3.3-24.

For DCPP, this change is withdrawn and the ISTS format is adopted.

ATTACHED PAGES:

Encl. 5A	3.3-57
Encl. 5B	B 3.3-150, 151 and 153
Encl. 6A	7
Encl. 6B	14

3.3 INSTRUMENTATION

3.3.4 Remote Shutdown System

LCO 3.3.4 The Remote Shutdown System ~~Instrumentation~~ Functions ~~and the SD panel controls~~ in Table 3.3.4-1 shall be OPERABLE. ~~3.3-84~~ Q 3.3-94

APPLICABILITY: MODES 1, 2 and 3.

ACTIONS

------------------------------NOTES------------------------------

1. LCO 3.0.4 is not applicable.

2. Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required Functions inoperable.	A.1 Restore required Function to OPERABLE status.	30 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	6 hours 12 hours

B 3.3 INSTRUMENTATION

B 3.3.4 Remote Shutdown System

BASES

BACKGROUND

The Remote Shutdown System provides the control room operator with sufficient instrumentation and controls to place and maintain the unit in a safe shutdown condition from a location other than the control room. This capability is necessary to protect against the possibility that the control room becomes inaccessible. A safe shutdown condition is defined as MODE 3. With the unit in MODE 3, the Auxiliary Feedwater (AFW) System and the steam generator (SG) safety valves ~~or the SG atmospheric dump valves (ADVs)~~ can be used to remove core decay heat and meet all safety requirements. The long term supply of water for the AFW System ~~and the ability to borate the Reactor Coolant System (RCS)~~ allows extended operation in MODE 3 until such time that either control is transferred back to the Control Room or a cooldown is initiated from outside the control room. Q3.3.6-1

remote redline

If the control room becomes inaccessible, the operators can establish control at the remote shutdown panel (hot shutdown panel), and place and maintain the unit in MODE 3. Not all controls and necessary transfer switches are located at the ~~remote~~ hot shutdown panel. Some controls and transfer switches will have to be operated locally at the switchgear, motor control panels, or other local stations. The unit automatically reaches MODE 3 following a unit shutdown and can be maintained safely in MODE 3 for an extended period of time.

following DC ALL-002

The OPERABILITY of the following remote shutdown control and instrumentation functions ensures there is sufficient information available on selected unit parameters to place and maintain the unit in MODE 3 should the control room become inaccessible.

INSERT A DC ALL-002

APPLICABLE SAFETY ANALYSES

The Remote Shutdown ~~System is required to~~ ~~Instrumentation Functions and the hot shutdown panel controls~~ provides equipment at appropriate locations outside the control room with a capability to promptly shut down and maintain the unit in a safe condition in MODE 3. 5.0 Q 3.3-94 DC ALL-002

The criteria governing the 5.0 design and specific system requirements of the Remote Shutdown ~~System~~ ~~Instrumentation Functions and controls~~ are located in 10 CFR 50, Appendix A, GDC 19 (Ref. 1). Q 3.3-94

(continued)

INSERT A.

(E)

INSTRUMENT/CONTROL FUNCTION	READOUT/CONTROL LOCATION	REQUIRED NUMBER OF CHANNELS	
1. Reactor Trip Breaker Indication	Reactor Trip Breaker	1/trip breaker	
2. Pressurizer Pressure	Hot Shutdown Panel	1	
3. Pressurizer Level	Hot Shutdown Panel	1	DC 3.3-E2
4. Steam Generator Pressure	Hot Shutdown Panel	1/stm. gen.	
5. Steam Generator Wide Range Water Level ~~or Auxiliary Feedwater Flow~~ e	Hot Shutdown Panel	1/stm. gen.	Q 7-10
6. Condensate Storage Tank Water Level	Hot Shutdown Panel	1	DC ALL-002
Remove strikeout			Q 7-10
~~7. Auxiliary Feedwater Flow~~	~~Hot Shutdown Panel~~	~~1/stm. gen.~~	
7 ~~8~~. Charging Flow	Hot Shutdown Panel	1	
8 ~~9~~. RCS Loop 1 Temperature Indication	Dedicated Shutdown Panel	Hot and Cold Leg Temperature Indication	
9 ~~10~~. Auxiliary Feedwater Flow Control - AFW Pump, and Associated Valves - Transfer Switches	 Hot Shutdown Panel 4kV Switchgear	 any 2 of 3 AFW pumps	
10 ~~11~~. Charging Flow Control - Centrifugal Charging Pump - Transfer Switch	 Hot Shutdown Panel 4kV Switchgear	 2 of 2 pumps	
11 ~~12~~. Component Cooling Water Control - Component Cooling Water Pump - Transfer Switch	 Hot Shutdown Panel 4kV Switchgear	 any 2 of 3 CCW pumps	
12 ~~13~~. Auxiliary Saltwater Control - Auxiliary Saltwater Pump - Transfer Switch	 Hot Shutdown Panel 4kV Switchgear	 2 of 2 pumps	
13 ~~14~~. Emergency Diesel Generator Control - EDG Start	 EDG Local Control Panel	 3 of 3 EDGs	

Restore original numbering

DC ALL-002

BASES

APPLICABLE SAFETY ANALYSES (continued)

Remove strikeout

The Remote Shutdown ~~System Instrumentation Functions and the hot shutdown panel controls~~ ~~is~~ considered an important contributor to the reduction of unit risk to accidents and as such it has been retained in the Technical Specifications as indicated ~~in the NRC Policy Statement~~by Criterion 4 of 10 CFR 50.36(c)(2)(ii). Q 3.3-94

LCO

The Remote Shutdown ~~System Instrumentation Functions and the hot shutdown panel controls~~ LCO provides the OPERABILITY requirements of the instrumentation and controls necessary to place and maintain the unit in MODE 3 from a location other than the control room. The instrumentation and controls ~~typically~~ required are listed in Table 3.3.4-1 in the accompanying LCO. Q 3.3-94

~~Reviewer's Note: For channels that fulfill GDC 19 requirements, the number of OPERABLE channels required depends upon the unit licensing basis as described in the NRC unit specific Safety Evaluation Report (SER). Generally, two divisions are required OPERABLE. However, only one channel per a given Function is required if the unit has justified such a design, and NRC's SER accepted the justification.~~

The ~~controls, instrumentation, and transfer switches are required for:~~ the individual functions that provide the following general functions

- ~~Core reactivity control (initial and long term)~~ Reactor trip indication; Q 7-01
- RCS pressure control;
- Decay heat removal via the AFW System and the SG safety valves ~~or SG ADVs~~;
- RCS inventory control via charging flow; and
- Safety support systems for the above Functions, including ~~service water~~ auxiliary saltwater, component cooling water, and ~~onsite power, including the~~ diesel generators.

A Function of a Remote Shutdown System is OPERABLE if all required instrument and control channels ~~needed to support the Remote Shutdown System Function~~ for that function listed in Table 3.3.4-1 are OPERABLE. In some cases, Table 3.3.4-1 may indicate that the required information or control capability is available from several alternate sources. In these cases, the Function is OPERABLE as long

(continued)

BASES

ACTIONS (continued)

A.1

remove strike out

Condition A addresses the situation where one or more required Functions of the Remote Shutdown ~~System~~ ~~instrumentation and SD panel controls~~ are inoperable. ~~This includes any Function listed in Table 3.3.4-1, as well as the control and transfer switches.~~

Q 3.3-94

The Required Action is to restore the required Function to OPERABLE status within 30 days. The Completion Time is based on operating experience and the low probability of an event that would require evacuation of the control room.

B.1 and B.2

If the Required Action and associated Completion Time of Condition A is not met, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours and to MODE 4 within 12 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE REQUIREMENTS

SR 3.3.4.1

Performance of the CHANNEL CHECK once every 31 days ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying that the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

~~A channel check of the RTBs is inappropriate since their indication is local and any gross failure would be readily detected.~~

Q 3.3-22

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including indication and readability. If the channels are

INSERT SR 3.3.4.1

Q 3.3-22

(continued)

CHANGE NUMBER	JUSTIFICATION
3.3-86	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-87	Not used.
3.3-88	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-89	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-90	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-91	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-92	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-93	ITS 3.3.1 Condition V is deleted. It is not entered from Table 3.3.1-1 nor do the Bases clarify when it would be needed, raising the concern of misinterpretation. Condition V does not replace LCO 3.0.3 requirements to assess when the plant is outside the licensing basis. There is no similar ACTION Statement in the current TS for the Reactor Trip System. This change is consistent with Traveler TSTF-135.
3.3-94	~~ITS 3.3.4 is revised per current TS [3.3.3.5] with regard to [remote shutdown panel] controls. [Remote shutdown panel] controls are added to the LCO, Condition A, and SR 3.3.4.2. By explicitly including the controls, the specification is clarified to be more than instrumentation. This change is acceptable because it does not change the meaning while retaining the clarity of the CTS.~~ Not Applicable to DCPP. See Conversion Comparison Table (Enclosure 6B). Q 3.3-94
3.3-95	ITS 3.3.1 Condition H, Required ACTION H.1, and the second part of Function 4 Applicability (MODE 2 below P-6) in ITS 3.3.1 are deleted since they provide no real compensatory measures. [With their deletion, there is no need to repeat the > P-6 Applicability in Conditions ~~F~~ and G.] In accordance with LCO 3.0.4, the intermediate range detectors must be OPERABLE ~~prior~~ to entering the Applicability of the retained part of Function 4 (i.e., MODE 2 above P-6). Condition H and Required ACTION H.1 ensure the same thing and, therefore, can be deleted. This change is consistent with Traveler TSTF-135. DC ALL-002 INSERT 3.3-96
3.3-96	[ ] Note 2 for ITS SR 3.3.1.3 is revised to replace the bracketed 15% RTP power level constraint with 50% RTP. The specified power level in ITS SR 3.3.1.3 should reflect the applicable safety analysis basis consistent with the [APPLICABILITY and] Required Actions of ITS LCO 3.2.3 (AFD) and LCO 3.2.4 (QPTR). As revised, this surveillance requirement is acceptable in that it assures the surveillance is performed after the appropriate plant conditions are attained and still provides sufficient time to perform the surveillance in a controlled manner. Q 3.3-96
3.3-97	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-98	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-99	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-86	Surveillance Requirement 3.3.5.2 is revised to reflect the current CPSES plant design and licensing basis. A Note is added to SR 3.3.5.2 indicating that setpoint verification is not applicable for the performance of the TADOT. This verification is performed during Channel Calobrations (see SR 3.3.5.3).	No	Yes, see also CNs 3.3-31, 3.3-130, and 3.3-131.	No	No
3.3-87	Not used.	NA	NA	NA	NA
3.3-88	Revise ITS 3.3.9 to apply in MODE 2 only below P-6 and to reflect ACTION Statement 5.b per CTS Table 3.3-1.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes
3.3-89	Revise COT in ITS SR 3.3.9.3 to add the 4 hour allowance from ITS SR 3.3.1.7.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes
3.3-90	Exclude neutron detectors from CHANNEL CALIBRATION ITS SR 3.3.9.4 per CTS Table 4.3-1, Functional Unit 6, Note 4 and TSTF-135	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes TR 3.3-006
3.3-91	Add CHANNEL CHECK and response time surveillances (ITS SR 3.3.9.1 and SR 3.3.9.5) per CTS Table 4.3-1, Functional Unit 6, Note 12 and TSTF-135	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes TR 3.3-006
3.3-92	Adds SR 3.3.4.2 Note that the ASP controls for the TDAFW pump and SG ASDs are not required to be verified prior to entry into MODE 3, consistent with CTS SR 4.3.3.5.3.	No, adopted ISTS format.	No, not in CTS.	No, adopted ISTS format.	Yes
3.3-93	ITS 3.3.1 Condition V is deleted. It is not entered from Table 3.3.1-1 nor do the Bases clarify when it would be needed, raising the concern of misinterpretation. Condition V does not replace LCO 3.0.3 requirements to assess when the plant is outside the licensing basis.	Yes	Yes	Yes	Yes
3.3-94	ITS 3.3.4 is revised per CTS [3.3.3.5] with regard to [ASP] controls.	~~Yes~~ No	Yes	~~No, adopted ISTS format.~~ Yes	Yes

Q 3.3-94

[illegible]

[illegible]

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-96 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

[Note 2 for ITS SR 3.3.1.2 is revised to replace the bracketed 12 hour time constraint with 24 hours. No such time limit is contained in the current TS, which has an SR 4.0.4 exception. The performance of ITS SR 3.3.1.2 should be provided sufficient time to perform the initial comparison and gain adjustment, equal to the SR frequency.]

Note 2 for ITS SR 3.3.1.3 is revised to replace the bracketed 15% RTP power level constraint with 50% RTP. The specified power level in ITS SR 3.3.1.3 should reflect the applicable safety analysis basis consistent with the [Applicability and] Required Actions of ITS LCO 3.2.3 (AFD) and LCO 3.2.4 (QPTR).

Comment: Reject - Beyond Scope - because ITS Note 2 to SR 3.3.1.2 and Note 2 to SR 3.3.1.3 proposes 24 hours for delay in performing the SR which are generic changes to STS that are not included in an approved TSTF. The justification is inadequate. Adequate justification would be the format is not usable, or the requirements represent unsafe practices or may result in an operational hardship. Note [DCPP] ITS markup missing "3.3-96" annotation.

Reject 50% RTP in Note 2 to SR 3.3.1.3.

FLOG RESPONSE: The justification for the proposed changes, originally provided in JFD 3.3-96, will be modified to include more detailed information concerning the application of the CTS 4.0.4 exception to these surveillance's.

The following has been added to JFD 3.3-96:

"These proposed changes address the current practices concerning the application of the CTS 4.0.4 exception to various STS surveillance requirements.

For DCPP, the plant-specific revision to SR 3.3.1.2 necessary to incorporate the CTS is described in JFD 3.3-47. For Callaway, CPSES, and WCGS, the proposed change to STS SR 3.3.1.2, note 2, is provided to incorporate the SR 4.0.4 exception provided in the equivalent CTS surveillance, contained in CTS Table 4.3-1, Note (2). The current practice regarding the application of the CTS 4.0.4 exception is to defer the first required calorimetric measurement and the associated normalization of alternate power indications until a scheduled testing plateau is attained during the post-refueling outage power ascension. Typical post-refueling outage power ascensions include a power increase to approximately 30% RTP; although, the current practice of some plants is to achieve a power plateau nearer to 50% RTP. Using typical power ascension rates of 3% RTP/hour, 5 to 12 hours are required to reach the first scheduled power plateau above 15% RTP. Based on plant experience, after a scheduled plateau is attained, approximately 2 hours are required to stabilize the plant and perform the calorimetric measurement. Two additional hours are required to make any necessary adjustments to the Nuclear Instrumentation System [and/or n-16] power indications. The proposed 24-hour allowance after increasing THERMAL POWER above 15% RTP provides a reasonable time to attain a scheduled power plateau, perform the required calorimetric measurement and make

[illegible]

[illegible]

any required adjustments in a controlled, orderly manner. Plant procedures provide guidance regarding the use of all available power indications [(e.g., NIS and loop ΔT)] during a power ascension. Any significant inconsistencies would be resolved through the performance of a calorimetric measurement. Based on current, conservative practices and the fact that secondary plant calorimetric measurements are typically more accurate when performed at higher power levels, it is not necessary to require a formal calorimetric comparison to be performed prior to exceeding 15% RTP. The note has sufficient limitations to ensure the plant is operated in a safe manner.

Note 2 to STS SR 3.3.1.3 addresses the conditions required to perform the incore-excore comparisons of AFD. The STS includes an allowance of 24 hours (within brackets) after exceeding a specified power level for the first performance of this surveillance. The proposed change to the time allowance of STS SR 3.3.1.3, Note 2, would adopt the 24 hour allowance, but specify the power level to be 50% RTP. The change is predicated on the current practices concerning the application of the CTS 4.0.4 exception to the CTS (e.g., for CPSES, CTS Table 4.3-1, Note (3)). Current practice is to perform this surveillance at a power level below 50% RTP. Based on plant operating experience, 24 hours is a reasonable time frame to limit operation above 50% RTP while completing the procedural steps associated with the surveillance in an orderly manner.

The deferral of the power level above which SR 3.3.1.3 is required to be satisfied is also consistent with current operating practices concerning the application of CTS 4.0.4. Due to such effects as shadowing from the relatively deep control rod insertion and, to a lesser extent, the dependency of the axially-dependent radial leakage on the power level, the relationship between the incore and excore indications of axial flux difference (AFD) at lower power levels is variable. Thus, it is prudent to defer the calibration of the excore AFD against the incore AFD until more stable conditions are attained (i.e., withdrawn control rods at a higher power level). The AFD is used as an input to the overtemperature reactor trip function and for assessing compliance with ITS LCO 3.2.3, "Axial Flux Difference." Due to the DNB benefits gained by administratively restricting the power level to 50% RTP, no limits on AFD are imposed below 50% RTP by LCO 3.2.3; thus, the proposed change is consistent with the LCO 3.2.3 requirements below 50% RTP. Similarly, sufficient DNB margins are realized through operation below 50% RTP that the intended function of the overtemperature reactor trip function is maintained, even though the excore AFD indication may not exactly match the incore AFD indication. [Further, current practice at DCPP is to administratively reduce the Power Range Neutron Flux - High setpoint to 72% RTP until this and other surveillances (e.g., peaking factors) have been completed and it has been demonstrated that the plant is ready for sustained operation at full power in accordance with the design and licensing basis.]

In summary, the proposed changes are more restrictive than the CTS, but are consistent with the current operating practices concerning the applications of the CTS 4.0.4 exceptions to the equivalent CTS surveillances. The proposed changes allow power ascensions and associated testing to be conducted in a controlled and orderly manner, at conditions that provide acceptable results and without introducing the potential for extended operation at high power levels with instrumentation that has not been verified to be acceptable for subsequent use."

ATTACHED PAGES:

Encl. 6A 7

CHANGE NUMBER	JUSTIFICATION
3.3-86	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-87	Not used.
3.3-88	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-89	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-90	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-91	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-92	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-93	ITS 3.3.1 Condition V is deleted. It is not entered from Table 3.3.1-1 nor do the Bases clarify when it would be needed, raising the concern of misinterpretation. Condition V does not replace LCO 3.0.3 requirements to assess when the plant is outside the licensing basis. There is no similar ACTION Statement in the current TS for the Reactor Trip System. This change is consistent with Traveler TSTF-135.
3.3-94	~~ITS 3.3.4 is revised per current TS [3.3.3.5] with regard to [remote shutdown panel] controls. [Remote shutdown panel] controls are added to the LCO, Condition A, and SR 3.3.4.2. By explicitly including the controls, the specification is clarified to be more than instrumentation. This change is acceptable because it does not change the meaning while retaining the clarity of the CTS.~~ Not Applicable to DCPP. See Conversion Comparison Table (Enclosure 6B). Q 3.3-94
3.3-95	ITS 3.3.1 Condition H, Required ACTION H.1, and the second part of Function 4 Applicability (MODE 2 below P-6) in ITS 3.3.1 are deleted since they provide no real compensatory measures. [With their deletion, there is no need to repeat the > P-6 Applicability in Conditions F and G.] In accordance with LCO 3.0.4, the intermediate range detectors must be OPERABLE prior to entering the Applicability of the retained part of Function 4 (i.e., MODE 2 above P-6). Condition H and Required ACTION H.1 ensure the same thing and, therefore, can be deleted. This change is consistent with Traveler TSTF-135. DC ALL-002 INSERT 3.3-96
3.3-96	~~[ ] Note 2 for ITS SR 3.3.1.3 is revised to replace the bracketed 15% RTP power level constraint with 50% RTP. The specified power level in ITS SR 3.3.1.3 should reflect the applicable safety analysis basis consistent with the [APPLICABILITY and] Required Actions of ITS LCO 3.2.3 (AFD) and LCO 3.2.4 (QPTR). As revised, this surveillance requirement is acceptable in that it assures the surveillance is performed after the appropriate plant conditions are attained and still provides sufficient time to perform the surveillance in a controlled manner.~~ Q 3.3-96
3.3-97	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-98	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-99	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

[illegible]

[illegible]

Insert for Q 3.3-96

Enclosure 6A page 7
Insert 3.3-96

"These proposed changes address the current practices concerning the application of the CTS 4.0.4 exception to various STS surveillance requirements.

For DCPP, the plant-specific revision to SR 3.3.1.2 necessary to incorporate the CTS is described in JFD 3.3-47. For Callaway, CPSES, and WCGS, the proposed change to STS SR 3.3.1.2, note 2, is provided to incorporate the SR 4.0.4 exception provided in the equivalent CTS surveillance, contained in CTS Table 4.3-1, Note (2). The current practice concerning the application of the CTS 4.0.4 exception is to defer the first required calorimetric measurement and the associated normalization of alternate power indications until a scheduled testing plateau is attained during the post-refueling outage power ascension. Typical post-refueling outage power ascensions include a power increase to approximately 30% RTP; although, the current practice of some plants is to achieve a power plateau nearer to 50% RTP. Using typical power ascension rates of 3% RTP/hour, 5 to 12 hours are required to reach the first scheduled power plateau above 15% RTP. Based on plant experience, after a scheduled plateau is attained, approximately 2 hours are required to stabilize the plant and perform the calorimetric measurement. Two additional hours are required to make any necessary adjustments to the Nuclear Instrumentation System [and/or n-16] power indications. The proposed 24-hour allowance after increasing THERMAL POWER above 15% RTP provides a reasonable time to attain a scheduled power plateau, perform the required calorimetric measurement, and make any required adjustments in a controlled, orderly manner. Plant procedures provide guidance regarding the use of all available power indications [(e.g., NIS and loop ΔT)] during a power ascension. Any significant inconsistencies would be resolved through the performance of a calorimetric measurement. Based on current, conservative practices and the fact that secondary plant calorimetric measurements are typically more accurate when performed at higher power levels, it is not necessary to require a formal calorimetric comparison to be performed prior to exceeding 15% RTP. The note has sufficient limitations to ensure the plant is operated in a safe manner.

Note 2 to STS SR 3.3.1.3 addresses the conditions required to perform the incore-excore comparisons of AFD. The STS includes an allowance of 24 hours (within brackets) after exceeding a specified power level for the first performance of this surveillance. The proposed change to the time allowance of STS SR 3.3.1.3, Note 2, would adopt the 24 hour allowance, but specify the power level to be 50% RTP. The change is predicated on the current practices regarding the application of the CTS 4.0.4 exception to the CTS (e.g., for CPSES, CTS Table 4.3-1, Note (3)). Current practice is to perform this surveillance at a power level below 50% RTP. Based on plant operating experience, 24 hours is a reasonable time frame to limit operation above 50% RTP while completing the procedural steps associated with the surveillance in an orderly manner.

The deferral of the power level above which SR 3.3.1.3 is required to be satisfied is also consistent with current operating practices regarding the application of CTS 4.0.4. Due to such effects as shadowing from the relatively deep control rod insertion and, to a lesser extent, the dependency of the axially-dependent radial leakage on the power level, the relationship between the incore and excore indications of axial flux difference (AFD) at lower power levels is variable. Thus, it is prudent to defer the calibration of the excore AFD against the incore AFD until more stable conditions are attained (i.e., withdrawn control rods at a higher power level).

[illegible]

[illegible]

The AFD is used as an input to the overtemperature reactor trip function and for assessing compliance with ITS LCO 3.2.3, "Axial Flux Difference." Due to the DNB benefits gained by administratively restricting the power level to 50% RTP, no limits on AFD are imposed below 50% RTP by LCO 3.2.3; thus, the proposed change is consistent with the LCO 3.2.3 requirements below 50% RTP. Similarly, sufficient DNB margins are realized through operation below 50% RTP that the intended function of the overtemperature reactor trip function is maintained, even though the excore AFD indication may not exactly match the incore AFD indication. [Further, current practice at DCPP is to administratively reduce the Power Range Neutron Flux - High setpoint to 72% RTP until this and other surveillances (e.g., peaking factors) have been completed and it has been demonstrated that the plant is ready for sustained operation at full power in accordance with the design and licensing basis.]

In summary, the proposed changes are more restrictive than the CTS, but are consistent with the current operating practices concerning the applications of the CTS 4.0.4 exceptions to the equivalent CTS surveillances. The proposed changes allow power ascensions and associated testing to be conducted in a controlled and orderly manner, at conditions that provide acceptable results and without introducing the potential for extended operation at high power levels with instrumentation that has not been verified to be acceptable for subsequent use."

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-97 **APPLICABILITY:** CP, WC, CA, DC

REQUEST:

The NOTE for SR 3.3.1.6 of ITS 3.3.1 has been revised to state "Not required to be performed until 72 hours after achieving equilibrium conditions with THERMAL POWER ^{3} 75% RTP". This is consistent with the current TS Functional [Units 2.a and 7] surveillance requirement of Table 4.3-1, as modified by Note (6) and current operating experience of 72 hours for performing the SR.

Comment: Reject - The JFD statement regarding equilibrium conditons: "This is consistent with the current TS Functional [Units 2.a and 7] surveillance requirement of Table 4.3-1, as modified by Note (6)" This JFD does not appear to be consistent with CTS as the JFD states. The CTS note 6 only refers to Incore-Excore calibration above 75% of RTP. The portion about "equilibrium" is added to the CTS Note (6) in Enclosure 2 as redline.

Provide data to support the statement that operating experience shows 72 hours is required to perform the SR.

FLOG RESPONSE: For Callaway, CPSES, and WCGS, the justification for the proposed changes, originally provided in JFD 3.3-97, will be modified to include more detailed information about the current practices concerning the application of the CTS 4.0.4 exception to this surveillance. For DCPP, plant-specific justification is provided in JFD 3.3-06, as discussed further in the response to Comment Number Q 3.3-06.

For Callaway, CPSES, and WCGS, the following has been added to JFD 3.3-97:

These proposed changes address the current practices concerning the application of the CTS 4.0.4 exception to STS SR 3.3.1.6.

The proposed changes to the STS SR 3.3.1.6 Note is provided to incorporate the SR 4.0.4 exception provided in the equivalent CTS surveillance (e.g., see CPSES CTS Table 4.3-1, Note (6)). For CPSES and WCGS, the current practice concerning the application of the CTS 4.0.4 exception is to defer the multi-point incore-excore calibration until a scheduled testing plateau above 75% is attained during the post-outage power ascension. Based on plant experience, it is necessary to perform this calibration at power levels at or above 75% RTP. During a post-refueling power ascension, it is usually necessary to control the axial flux difference at lower power levels through control rod insertion. For example, at CPSES, it was determined that a multi-point calibration performed well below 75% RTP resulted in excessive incore-excore axial flux difference deviations at full power. The deviations were attributed to rod shadowing effects on the base flux map and to a lesser degree, the dependency of the axially-dependent radial leakage on the power level.

To collect the data necessary to satisfy this surveillance requirement, it is first necessary to obtain equilibrium conditions at the appropriate testing plateau. A full-core "base" flux map is obtained. The control rods are then inserted into the core to initiate a swing in the axial flux difference (AFD). Several partial flux maps are then collected at various values of AFD. Based on plant operating experience, failures in the flux mapping system can result in extended data collection times. The plant is then returned to a stable condition. The test data is then

analyzed and reduced, and the appropriate calibration data for the excore data is calculated. The excore detectors are then adjusted, as necessary. Based on plant experience, after equilibrium conditions are achieved at the specified power plateau, approximately 24 hours are required to perform the base flux map, initiate the required AFD swings, and collect the required data. The data is typically analyzed and the appropriate excore calibrations are completed within the following 24 hours. Based on plant operating experience, an additional time allowance of 24 hours is provided during which the effects of equipment failures may be remedied and any required re-testing may be performed.

For Callaway, a similar sequence is used during the post-outage power ascension; however, a single-point incore-excore calibration methodology is utilized rather than a multi-point methodology. Since an AFD swing and partial flux maps are not required, the time for performing the flux map and collecting the required data is less than the 24 hours discussed above (typically 4 to 6 hours duration). Similar to CPSES and WCGS, the subsequent 48 hours allow for the performance of excore calibrations and provide an allowance during which the effects of equipment failures may be remedied and any required re-testing may be performed.

[Further, current practice at many plants is to administratively reduce the Power Range Neutron Flux - High setpoint until this and other surveillances (e.g., peaking factors) have been completed and it has been demonstrated that the plant is ready for sustained operation at full power in accordance with the design and licensing basis.]

In summary, the proposed changes to STS SR 3.3.1.6 are more restrictive than the CTS, but are consistent with the current operating practices concerning the application of the CTS 4.0.4 exception to the equivalent CTS surveillance. The proposed changes allow power ascensions and associated testing to be conducted in a controlled and orderly manner, at conditions that provide acceptable results and without introducing the potential for extended operation at high power levels with instrumentation that has not been verified to be acceptable for subsequent use.

ATTACHED PAGES:

Encl. 6B 15

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-95	ITS 3.3.1 Condition H, Required ACTION H.1, and the second part of Function 4 Applicability (MODE 2 below P-6) in ITS 3.3.1 are deleted since they provide no real compensatory measures. [With their deletion, there is no need to repeat the > P-6 Applicability in Conditions F and G.] In accordance with LCO 3.0.4, the intermediate range detectors must be OPERABLE prior to entering the Applicability of the retained part of Function 4 (i.e., MODE 2 above P-6). Condition H and Required ACTION H.1 ensure the same thing and, therefore, can be deleted. This change is consistent with Traveler TSTF-135.	Yes	Yes	Yes	Yes
3.3-96	[ ] Note 2 for ITS SR 3.3.1.3 is revised to replace the bracketed 15% RTP power level constraint with 50% RTP. The specified power level in ITS SR 3.3.1.3 should reflect the applicable safety analysis basis consistent with the [APPLICABILITY and] Required Actions of ITS LCO 3.2.3 (AFD) and LCO 3.2.4 (QPTR).	Yes	Yes	Yes	Yes
3.3-97	The NOTE for SR 3.3.1.6 of ITS 3.3.1 has been revised to state "Not required to be performed until 72 hours after achieving equilibrium conditions with THERMAL POWER ≥ 75% RTP". This is consistent with the CTS Functional Unit 2.a surveillance requirement of Table 4.3-1 as modified by Note (6), and current operating experience of 72 hours for performing the SR.	No, ~~adopted bracketed ISTS time of 24 hours;~~ see ~~also~~ CN 3.3-06.	Yes	Yes	Yes Q 3.3-57
3.3-98	This change reflects the Callaway-specific modification of the main steam and feedwater isolation system (MSFIS).	No	No	No	Yes, per OL Amendment No. 117 dated 10-1-96, and OL Amendment No. 123 dated 3-25-98 CA 3.3-009

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-104 **APPLICABILITY:** DC

REQUEST:

CONDITION A of ITS 3.3.5 is revised to incorporate CTS ACTIONS 15 and 16. CONDITIONS B and C are not used.

Comment: Beyond Scope - - CTS LAR-97-02 request the addition of Actions to address loss of both degraded and LOV channels. PM action to issue amendment. DC action to provide an A-DOC for the change.

The CTS markup for the loss of power function shows two actions. Action 15 applies to the two channel functions and Action 16 applies to the one channel functions. Only Action 15 is reflected in the ITS. It may be that Action 16 can be argued to be subsumed by Action 15. If so, this should be reflected and justified in the CTS markup. If not, Action 16 should be reflected in the ITS markup.

ITS LCO 3.3.5 is modified from the iSTS to incorporate plant design. Use the NEI guidance document to state, using consistent language, the required channels for each bus for each LOP DG Start Function.

FLOG RESPONSE: LAR 97-02 was approved by the NRC as LA 129/127. The markups to incorporate these latest approved revisions are enclosed as Addition Information Number DC 3.3-005.

Item 2 was accepted at the September 15, 1998, meeting since CTS ACTION 16 is subsumed by ACTION 15.

The ITS LCO 3.3.5 has been revised to state the required channels for each bus and for each LOP DG start function.

ATTACHED PAGES:

Encl. 5A 3.3-60

3.3 INSTRUMENTATION

3.3.5 Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation

LCO 3.3.5 ~~[Three] One channels per bus of the loss of voltage DG start Function and two channels for initiation of load shed Function and [three] two channels per bus of the degraded voltage Function with one timer per bus for DG start and initiation of load shed Function shall be OPERABLE.~~ INSERT LCO 3.3.5 — 3.3-133 — Q 3.3-104

APPLICABILITY: MODES 1, 2, 3, and 4,
When associated DG is required to be OPERABLE by LCO 3.8.2, "AC Sources – Shutdown."

ACTIONS

-----------------------------NOTE-----------------------------
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one or more channels per bus inoperable.	A.1 -----------NOTE----------- ~~The inoperable~~One channel may be bypassed for up to 4 2 hours for surveillance testing ~~of other channels~~. ------------------------- ~~Place channel in trip.~~Declare the associated DG inoperable and enter the applicable Condition(s) and Required Action(s).	3.3-104 ~~6 hours~~Immediately
~~B. One or more Functions with two or more channels per bus inoperable.~~	~~B.1 Restore all but one channel to OPERABLE status.~~	~~1 hour~~ 3.3-104

(continued)

Insert for Q 3.3-104

Enclosure 5A page 3.3-60
Insert LCO 3.3.5

The following LOP DG start instrumentation shall be OPERABLE:

a. One channel per bus of loss of voltage DG start with two timers per bus for load shed.

b. Two channels per bus of degraded voltage with:

   1) one timer per bus for DG start and,

   2) one timer per bus for load shed.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-107 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Based upon operating experience to change thermal power in a controlled fashion without challenging the plant and consistent with the current TS which does not have a Completion Time for restoring one channel to Operable status; but does prevent going above P-10 until it is restored, the Completion Time for ITS 3.3.1Required Actions F.1 and F.2 should be increased to 24 hours.

Comment: The CTS has no requirement on the time to restore inoperable intermediate range neutron flux interlock. ITS markup establishes a 24 hour time limit. Time limit is significantly longer than generic ITS limit of 2 hours. However, in the transition to the ITS markup, the CTS action has changed. Explicit justification for a 24 hour time limit is not provided. Recommend adopting ITS generic limit of 2 hours or providing explanation of hardship from not complying with ITS generic limit. In addition, the JFD statement that CTS does not "prevent going above P-10" is more correctly stated that power is not allowed to exceed the P-10 setpoint.

FLOG RESPONSE: The FLOG continues to pursue the changes proposed in traveler TSTF-246.

When operating between the P-6 and P-10 permissives, the intermediate range nuclear instrumentation channels provide core protection for reactivity accidents. If one intermediate range channel becomes inoperable, Condition F is entered.

If Required Action F.1 were followed and THERMAL POWER reduced below P-6, the main turbine and generator must be removed from service and feedwater supply must be transferred from the main feedwater pump to the motor-driven startup feedwater pump. In addition, since the plant is not maintained at P-6, the RCS would be borated to MODE 3 conditions, control rods inserted, shutdown margin verified periodically, and all MODE 3 change requirements must be met.

If Required Action F.2 were followed and THERMAL POWER increased above P-10, the following major plant evolutions are performed:

Start a main feedwater pump while controlling SG water levels and retire motor-driven startup feedwater pump;

Make required RCS boron concentration changes;

Align auxiliary systems and warm secondary side (including main turbine chest and shell);

Place feedwater pre-heating in service;

[illegible]

[illegible]

Roll main turbine and ensure all Turbine Trip Function surveillances are current; and

Synchronize the main generator.

Depending on plant status and power level at the time of Condition F entry, neither ITS 3.3.1 Required Action F.1 nor F.2 may be able to be performed in a controlled manner within 2 hours. Obviously, F.1 can be performed more quickly than F.2. However, given the desire to perform these low power evolutions in a controlled manner and the "OR" logic connector between F.1 and F.2, the Completion Time of 24 hours from traveler TSTF-246 was adopted (the Traveler Status Sheet had identified this as a proposed traveler under WOG Mini-Group Action Item #145). DOC 1-07-LS-3 and NSHC LS-3 provide discussions establishing the lack of any adverse safety impact associated with this change. This change has been previously approved for Vogtle.

ATTACHED PAGES:

Enclosure 5A Traveler Status Sheet

INDUSTRY TRAVELERS APPLICABLE TO SECTION 3.3

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS changes
TSTF-19, Rev. 1	~~Not~~ Incorporated	NA	~~Not~~ NRC approved ~~as of traveler cut-off date.~~ Bases only TR 3.3-004
~~TSTF-36, Rev. 2~~	~~Incorporated~~	~~3.3-34~~	Q 3.3-34
TSTF-37, Rev. 1	Not Incorporated	NA	ITS 5.6.8 still addresses PAM reports. Sections after ITS 5.6.7 were not renumbered.
TSTF-51	Not Incorporated	NA	Requires plant-specific reanalysis to establish decay time dependence for fuel handling accident.
~~TSTF-91~~	~~Not Incorporated~~	~~NA~~	~~[Trip Setpoints and] Allowable Values for loss of voltage and degraded voltage will remain in the TS.~~ TR 3.3-005
TSTF-111, Rev. ~~3~~ 4	Incorporated	NA	Q 1-03
TSTF-135, Rev. 1	Partially Incorporated 3.3-90 3.3-91 3.3-106	3.3-41, 3.3-44, 3.3-93, 3.3-95, 3.3-122 3.3-142	~~Traveler is too broad scoope in nature; should have been separate travelers. Portions of the traveler that significantly clarify operability requirements have been incorporated.~~ TR 3.3-006
TSTF-161, Rev. 1	Incorporated	3.3-79	Approved by NRC Q 3.3-79
TSTF-168	Incorporated	3.3-43	Approved by NRC. Q 3.3-43
TSTF-169	Incorporated	3.3-42	Approved by NRC TR 3.3-003
~~WOG-106~~ TSTF-242	Incorporated	3.3-49	Q 3.3-49
~~Proposed Traveler~~ TSTF-246	Incorporated	3.3-107	~~WOG Mini-group Action Item # 45~~ Q 3.3-107

[illegible]

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-117 **APPLICABILITY:** CA, DC, WC, CP

REQUEST:

This change to ITS 3.3.1 Condition R reflects current TS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.

Comment: Reject-Beyond Scope - This generic change requries a staff approved TSTF before acceptance in ITS.

{DC, WC,CW} CTS requires 2 channels of RTBs to be operable. ITS requires 2 trains of RTBs to be operable. STS action R contains two Notes that address both channel and train inoperabilities. The ITS proposes to change Condition R to require actions based on RTBs which allows RTB bypass for up to 48 hours versus the 2 hours allowed in Note 2 to Condition R. Provide additional justification.

FLOG RESPONSE: Note 2 of ITS 3.3.1 Condition R is taken directly from the current TS (e.g. ACTION 12 for Functional Unit [20] in Table 3.3-1), allowing the RTB to be bypassed for the time required to restore the inoperable trip attachment. Two hours, as included in the STS, is insufficient to perform the full range of troubleshooting, maintenance, and retest activities on an inoperable undervoltage trip attachment (UVTA) or shunt trip attachment (STA) that may be involved. The time required will obviously depend on the nature of the inoperability, but the discussion below assumes the trip attachments must be replaced.

UVTA replacement may require the following actions:

Temporary connection of the new trip attachment (after QC parts verification);

Checks to ensure proper dimensional interfacing of the UVTA with the breaker trip bar (must verify "pre-travel" gap between the roll pin and trip arm as well as the trip margin dimension);

Permanent connection of the UVTA to the breaker secondary contacts;

Cycling the breaker at least 5 times to verify UVTA operation;

Post-maintenance testing by the maintenance department to verify breaker response time (QC inspection point), dropout and pickup voltages, and UVTA trip force vs. breaker load;

TS surveillances by the operations department involving a TADOT that includes an independent verification of UVTA and STA trips.

STA replacement may require the following actions:

Temporary connection of the new trip attachment (after QC parts verification);

Checks to ensure proper dimensional interfacing of the STA with the breaker (must verify "pre-travel" and total travel);

[illegible]

Permanent connection of the STA;

Cycling the breaker at least 5 times each at the maximum, nominal, and minimum STA voltages to verify STA operation;

Post-maintenance testing by the maintenance department to verify breaker response time (QC inspection point) and verify the breaker trips at the minimum STA voltage;

TS surveillances by the operations department involving a TADOT that includes an independent verification of UVTA and STA trips.

The FLOG will retain the flexibility afforded by the current TS in this regard. As ITS 3.3.1 Condition R Note 2 reads, the RTB will be bypassed only for as long as it takes to restore the inoperable trip attachment.

As discussed in response to Comment Number Q 3.3-03, Condition R and its Notes will use the "RTB train" wording.

For Wolf Creek, CTS Table 3.3-1, Action 12, a line of text was inadvertently deleted during the development of the conversion application. With the addition of the deleted text and reflecting the application of DOC 1-14-A, ITS Condition R does reflect CTS Table 3.3-1, Action 12.

ATTACHED PAGES:

None

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-120 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.

Comment: Reject - The ITS proposes generic changes to the STS that are in not TSTF-109. Revise the ITS to adopt the STS.

Based on 8/14/98 meeting staff is considering a conforming LCO 3.3.1 changes for consistency with TSTF-109.

FLOG RESPONSE: JFD 3.3-120 is withdrawn. The Note above ITS 3.3.1 Required Action D.2.2 has been revised to reflect the STS, NUREG-1431. Bases changes have been made to clarify that the performance of ITS SR 3.2.4.2 per Required Action D.2.2 is subject to the SR 3.2.4.2 Note.

ATTACHED PAGES:

Encl. 5A	3.3-4
Encl. 5B	B 3.3-43
Encl. 6A	9
Encl. 6B	18

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. (continued) Delete Strike out	------------NOTE------------ ~~Only~~ ~~Not~~ required to be performed ~~when the~~ until ~~12 hours after~~ ~~input from one~~ Power Range Neutron Flux ~~input~~ channel to QPTR is inoperable ~~and THERMAL POWER is ≥ than 75% RTP~~. ----------------------------	Q 3.3-120 ~~3.3-120~~
	D.2.2 Perform SR 3.2.4.2.	Once per 12 hours
	OR	
	D.3 Be in MODE 3.	12 hours Q 3.3-37 3.3-37
E. One channel inoperable.	------------NOTE------------ The inoperable channel or one additional channel for FUNCTION 6, 7, 8b and 14, may be bypassed for up to 4 hours for surveillance testing ~~and setpoint adjustment~~ of other channels. For FUNCTIONS 2b, 3a and 3b only the inoperable channel may be bypassed for surveillance testing of other channels.	~~3.3-40~~ Q 3.3-40
	E.1 Place channel in trip.	6 hours
	OR	
	E.2 Be in MODE 3.	12 hours
F. ~~THERMAL POWER > P-6 and < P-10.~~ One Intermediate Range Neutron Flux channel inoperable.	F.1 Reduce THERMAL POWER to < P-6.	224 hours 3.3-95 3.3-107
	OR	
	F.2 Increase THERMAL POWER to > P-10.	224 hours 3.3-107

(continued)

BASES

ACTIONS

D.1.1, D.1.2, D.2.1, D.2.2, and D.3 (continued)

In addition to placing the inoperable channel in the tripped condition, THERMAL POWER must be reduced to ≤ 75% RTP within 12 hours. Reducing the power level prevents operation of the core with radial power distributions beyond the design limits. With one of the NIS power range detectors inoperable, 1/4 of the radial power distribution monitoring capability is lost.

As an alternative to the above actions, the inoperable channel can be placed in the tripped condition within 6 hours and the QPTR monitored once every 12 hours as per SR 3.2.4.2, including the SR 3.2.4.2 Note, QPTR verification. Calculating QPTR every 12 hours compensates for the lost monitoring capability due to the inoperable NIS power range channel and allows continued unit operation at power levels ≥ 75% RTP. The 6 hour Completion Time and the 12 hour Frequency are consistent with LCO 3.2.4, "QUADRANT POWER TILT RATIO (QPTR)." Q3.3-120

As an alternative to the above Actions, the plant must be placed in a MODE where this Function is no longer required OPERABLE. Twelve hours are allowed to place the plant in MODE 3. This is a reasonable time, based on operating experience, to reach MODE 3 from full power in an orderly manner and without challenging plant systems. If Required Actions cannot be completed within their allowed Completion Times, LCO 3.0.3 must be entered.

The Required Actions have been modified by a Note that allows placing the inoperable channel in the bypass condition for up to 4 hours while performing routine surveillance testing of other channels. The Note also allows placing the inoperable channel in the bypass condition to allow setpoint adjustments of other channels when required to reduce the setpoint in accordance with other Technical Specifications. The 4 hour time limit is justified in Reference 7.

Remove Strike Out

Required Action D.2.2 has been modified by a Note which ~~only~~ ~~requires~~ ~~states that~~ SR 3.2.4.2 ~~is not required~~ to be performed ~~until 12 hours after input from one~~ ~~if the~~ Power Range Neutron Flux ~~channel~~ ~~input~~ to QPTR becomes inoperable ~~and thermal power is > 75% RTP.~~ Failure of a component in the Power Range Neutron Flux Channel which renders the High Flux Trip Function inoperable may not affect the capability to monitor QPTR. As such, determining QPTR using ~~this~~ ~~the~~ movable incore detectors once per 12 hours may not be necessary. Q 33-120

Q 3.3-120

The performance of SR 3.2.4.2 per ACTION D.2.2 is subject to the SR 3.2.4.2 note.

(continued)

Not Applicable to DCPP. See Conversion Comparision Table (Enclosure 6B) DC 3.3-004

CHANGE NUMBER	JUSTIFICATION	
3.3-109	~~Not used.~~ INSERT 3.3-109	Q 8-11
3.3-110	~~Not used.~~ INSERT 3.3-110	DCALL-005
3.3-111	~~This change adds a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the current TS and is an enhancement which is easily performed and provides additional assurance that the interlocks are functioning correctly.~~	DC 3.3-004
3.3-112	~~Not used.~~ INSERT 3.3-112	Q 12-05(3.6)
3.3-113	~~Not used.~~ INSERT 3.3-113	Q 2-05(2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114	Q 3.3-66
3.3-115	Not used.	
3.3-116	ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps. The function exists, but is not credited in any accident analysis and is not part of ESFAS Function 6 in the CTS.	
3.3-117	This change to ITS 3.3.1 Condition R reflects current TS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.	
3.3-118	This change is for consistency with ITS 3.7.10 Condition [G].	
3.3-119	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-120	~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.~~ Not used.	Q 3.3-120
3.3-121	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-122	ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring the RTBs to be opened with ACTIONS that ensure subcriticality is maintained (i.e., by initiating action to fully ~~inserting~~ insert all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135.	TR 3.3-006
3.3-123	This change deletes ACTION L.2 and renumbers L.3 since the requirement to close the unborated water source valves is not in the CTS and is not part of the current licensing basis. This new requirement is not applicable to DCPP which has a licensed dilution accident evaluation (refer to License Amendment 28/27). The current licensing bases in accordance with NUREG 0800, Section 15.4.6 provides adequate assurance that a dilution event will be recognized and arrested in a timely fashion.	DC 3.3-Ed
3.3-124	Consistent with the current TS Table 4.3-1, Note [15], the note for ITS SR 3.3.1.4 is modified, a note is added to Table 3.3.1-1, and Function 20 are modified to clarify that the SR is required for the reactor trip bypass breaker local manual shunt trip only. The Bases for SR 3.3.1.14 clearly state that SR 3.3.1.14 includes the automatic undervoltage trip of the reactor trip bypass breakers. The Note (k) added to Table 3.3.1-1, Function 20 clarifies the Applicability of the undervoltage and shunt trip mechanisms to include those functions of the reactor trip bypass breakers when in use.	

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-115	Not used.	N/A	N/A	N/A	N/A
3.3-116	ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps.	Yes	No	No	No
3.3-117	This change to ITS 3.3.1 Condition R reflects CTS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.	Yes	~~No, not in CTS.~~ Yes	Yes	Yes Q 3.3-117
3.3-118	This change is for consistency with ITS 3.7.10 Condition [G].	Yes	Yes	Yes	Yes
3.3-119	This change reflects Callaway-specific BDMS analysis restrictions associated with RCS mixing volume and dilution flow rate. These are administratively controlled under the CTS, as approved in OL Amendment No. 94 dated March 7, 1995. However, with the conversion to ITS 3.3.9, these analysis assumptions should be included in the body of the TS.	No	No	No	Yes
3.3-120	~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.~~ Not used.	~~Yes~~ N/A	~~Yes~~ N/A	~~Yes~~ N/A	~~Yes~~ N/A Q 3.3-120
3.3-121	For Callaway, ITS 3.3.9 is revised to reflect that only one BDMS train is required OPERABLE in MODE 5 and that the suspension of positive reactivity additions and accelerated SDM verifications are required only if no source range neutron flux indicator is OPERABLE.	No	No	No	Yes
3.3-122	ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring the RTBs to be opened with ACTIONS that ensure initiating action to subcriticality is maintained (i.e., by fully inserting all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135.	Yes	Yes	Yes	Yes TR 3.3-006

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-122 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS 3.3.1 Applicability Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace Actions requiring the RTBs to be opened with actions that ensure subcriticality is maintained (i.e., by fully inserting all rods and ensuring the rod control system is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with traveler TSTF-135.

Comment: Reject – 1) The ITS proposes generic changes to the STS that are not included in an approved TSTF. The justification is inadequate. Adequate justification would be the format is not usable, or the requirements represent unsafe practices or may result in an operational hardship.

Based on 8/14/98 meeting Rev. 0 is accepted

2) ITS T3.3.1-1 Note (b) can be accepted with modification by replacing "all rods not inserted" with "one or more rods not inserted."

FLOG RESPONSE: The FLOG will adopt TSTF-135 Rev. 3, as discussed in response to Comment Number 3-LS-GEN. Footnote (b) to ITS Table 3.3.1-1 has been revised per the above, as indicated in the pages attached to 3-LS-GEN. In addition, NSHC LS-39 and the ITS 3.3.1 Condition C and K Bases have been revised to indicate some possible methods to ensure the Rod Control System is rendered incapable of rod withdrawal.

ATTACHED PAGES:

Encl. 4	58
Encl. 5B	B 3.3-42 and B 3.3-47

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS39
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

requires that action be initiated to

APPLICABILITY Note [*] and ACTION Statements [11] for Functional Units [1, 6.b, and 20] of current TS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met. As currently worded, these ACTION Statements result in a feedwater isolation signal (FWIS) when in MODE 3 with a T_{avg} less than [554°F. FSAR Table 7.3-13 and FSAR Figure 7.2-1 (sht. 13) detail the FWIS generation on the coincidence of P-4 and low T_{avg}.] A more generic action, which assures the rods are fully inserted and cannot be withdrawn, TR 3.3-006 replaces the specific method of precluding rod withdrawal. The revised Applicability and ACTION Statements still assure rod withdrawal is precluded. This change does not involve any safety impact and is consistent with Traveler TSTF-135. The proposed change allows more freedom in how rod withdrawal is precluded and is thus less restrictive. However, the intent of using physical plant characteristics to prevent rod withdrawal is not diminished. The specification now acknowledges that the Rod Control System can be effectively disabled by means other than opening the RTBs (e.g., by de-energizing all CRDMs, by opening the RTBs or de-energizing the motor generator (MG) sets.) Q 3.3-122 This proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The proposed change does not alter the requirement to preclude rod withdrawal using physical plant characteristics. The specification does not allow administrative control or other means which could be conceived as less stringent. The specification does allow for alternative means to opening the RTBs for precluding rod withdrawal. These means, if used, would be as effective as opening the RTBs, such as removing power to the Rod Control System. Therefore, there should be no increase in the probability or consequences of a previously evaluated accident.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Inadvertent rod withdrawal accidents have been previously evaluated. This change does not create the possibility of a new or different kind of accident.

BASES

ACTIONS

C.1 ~~and C.2~~.1 and C.2.2 (continued)

action must be initiated within the same 48 hours to fully insert all rods

TR 3.3-006

- Manual Reactor Trip;
- RTBs;
- RTB Undervoltage and Shunt Trip Mechanisms; and
- Automatic Trip Logic.

for the latter

This action addresses the train orientation of the SSPS for these Functions. With one channel or train inoperable, the inoperable channel or train must be restored to OPERABLE status within 48 hours. If the affected Function(s) cannot be restored to OPERABLE status within the allowed 48 hour Completion Time, the unit must be placed in a MODE in which the requirement does not apply. To achieve this status, ~~the RTBs must be opened~~ ~~rods must be fully inserted~~ and the Rod Control System rendered incapable of rod ~~withdrawn~~ withdrawal must be within the next hour. The additional hour provides sufficient time to accomplish the action in an orderly manner. With the ~~RTBs open,~~ rods fully inserted and the Rod Control System rendered incapable of rod withdrawn, these Functions are no longer required. (e.g., by de-energizing all CRDMs, by opening the RTBs, or by de-energizing the motor generator (MG) sets)

TR 3.3-006

DC 3.3-Ed

The Completion Time is reasonable considering that in this Condition, the remaining OPERABLE train is adequate to perform the safety function, and given the low probability of an event occurring during this interval.

Q 3.3-122

while this LCO is not met for

Condition C is modified by a Note stating that ~~the transition from~~ Making MODE 5 ~~to MODE 6 with~~ the Rod Control System capable of rod withdrawal ~~or all rods~~ not ~~fully inserted~~ is not permitted for Functions 19, 20 or 21. ~~This Note specifies an exception to LCO 3.0.4 for this MODE 5 transition and avoids placing the plant in a condition where control rods can be withdrawn while the reactor trip system is degraded.~~ This note is in addition to the requirements of LCO 3.0.4 which preclude the transition from either MODE 3 or MODE 4 to MODE 3 or MODE 4 with the Rod control System capable of rod withdrawal or all rods not fully inserted for Functions 19, 20, or 21 with one channel or train inoperable.

Q 3.3-135

D.1.1, D.1.2, D.2.1, D.2.2, and D.3

Condition D applies to the Power Range Neutron Flux—High Function.

The NIS power range detectors provide input to the ~~CRD~~Rod Control System ~~and the SG Water Level Control System~~ and, therefore, have a two-out-of-four trip logic. A known inoperable channel must be placed in the tripped condition. This results in a partial trip condition requiring only one-out-of-three logic for actuation. The 6 hours allowed to place the inoperable channel in the tripped condition is justified in WCAP-10271-P-A (Ref. 7).

(continued)

BASES

ACTIONS

J.1 (continued)

NIS source range performs the monitoring and protection functions. With both source range channels inoperable, the RTBs must be opened immediately. With the RTBs open, the core is in a more stable condition and the unit enters Condition L.

K.1 ~~and K.2~~.1 and K.2.2

one or more

TR 3.3-006

Condition K applies to one inoperable source range channel in MODE 3, 4, or 5 with the ~~RTBs closed and the CRD~~ Rod Control System capable of rod withdrawal or ~~all~~ rods not fully inserted. With the unit in this Condition, below P-6, the NIS source range performs the ~~monitoring and~~ protection functions. With one of the source range channels inoperable, 48 hours is allowed to restore it to an OPERABLE status. If the channel cannot be returned to an OPERABLE status, 1 additional hour is allowed ~~to fully insert all rods and~~ place the Rod Control System in a condition incapable of rod withdrawal ~~to open the RTB~~. Once these ACTIONS are completed ~~the RTBs are open~~ the core is in a more stable condition. ~~and the unit enters Condition L.~~ The allowance of 48 hours to restore the channel to OPERABLE status, and the additional hour to ~~open the RTBs, fully insert all rods and~~ place the Rod Control System in a condition incapable of rod withdrawal, are justified in Reference 7.

action must be initiated within the same 48 hours to fully insert All rods.

TR 3.3-006

TR 3.3-006

(e.g., by de-energizing all CRDMs, by opening the RTBs, or by de-energizing the motor generator (MG) sets)

Q 3.3-122

L.1, L.2, and L.3

Condition L applies when the required number of OPERABLE Source Range Neutron Flux channels is not met in MODE 3, 4, or 5 with the RTBs open or with the Rod Control System incapable of rod withdrawal and all rods fully inserted. With the unit in this Condition, the NIS source range performs ~~the~~ a monitoring ~~and protection~~ functions. With less than the required number of source range channels OPERABLE, operations involving positive reactivity additions shall be suspended immediately. This will preclude any power escalation. ~~In addition to suspension of positive reactivity additions, all valves that could add unborated water to the RCS must be closed within 1 hour as specified in LCO 3.9.2. The isolation of unborated water sources will preclude a boron dilution accident.~~

Also, the SDM must be verified within 1 hour and once every 12 hours thereafter as per SR 3.1.1.1, SDM verification. With no source range channels OPERABLE, core protection is severely reduced. Verifying the SDM within 1 hour allows

(continued)

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-123 **APPLICABILITY:** DC

REQUEST:

This change deletes ACTION L.2 and renumbers L.3 since the requirement to close the unborated water source valves is not in the CTS.

Comment: See comment CTS 3.3.1-4

Typographical error, Condition L allows for multiple channels inoperable, but only one channel is required.

FLOG RESPONSE: The comment should refer to Comment Number Q 3.3-41 which states: "Adopt the STS LCO for BDPS as a condition for deleting of the source range neutron monitors with the reactor trip breakers open requirements."

DCPP is not deleting the requirement for the Source Range monitors with the reactor trip breakers open. DCPP does not, and is not required to, have a BDPS. The operator has several alarms and indicators that would alert him of a boron dilution event. FSAR Update Section 15.2.4 describes the various dilution events, the identification of each event, and the operator's response to each event. For refueling, the FSAR states that the rate of addition of unborated makeup water to the RCS, when it is not at pressure, is limited by the capacity of the primary water supply pumps. The maximum addition rate in this case is 300 gpm. Information on the status of the reactor coolant makeup is continuously available to the operator. Lights are provided on the control board to indicate the operating condition of the pumps in the CVCS. Alarms are actuated to warn the operator if boric acid or demineralized water flowrates deviate from preset values as a result of system malfunction. The operator has prompt and definite indication of any boron dilution from the audible count rate instrumentation. In addition, a high source range flux level is alarmed in the control room.

For dilution during refueling, the analysis assumes the following: At the beginning of the core life, equilibrium cycle core, the boron concentration must generally be reduced from 2000 ppm to approximately 1600 ppm before the reactor will go critical. This takes approximately 32 minutes. This is ample time for the operator to recognize a high count-rate signal and isolate the reactor makeup water source by closing valves and stopping the primary water supply pumps. The NRC has accepted manual intervention by the operator. The SER for License Amendment 28/27 documents the NRC's latest acceptance of DCPP's boron dilution accident analyses.

ACTION L has been revised by deleting the "(s)" following "channel."

ATTACHED PAGES:

Encl. 5A 3.3-7

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
L. Required Source Range Neutron Flux channel~~(s)~~ e inoperable.	L.1 Suspend operations involving positive reactivity additions.	Immediately
	~~AND~~	B Q 3.3-123
	~~L.2 Close unborated water source isolation valves.~~	~~1 hour~~ 3.3-123
	AND	
	L.~~3~~2 Perform SR 3.1.1.1.	1 hour AND Once per 12 hours thereafter
M. One channel inoperable.	-------------NOTE------------- The inoperable channel or one additional channel for FUNCTIONS 8a, 9 and 10, may be bypassed for up to 4 hours for surveillance testing of other channels. For FUNCTIONS 11, 12 and 13, only the inoperable channel may be bypassed for surveillance testing of other channels.	Q 3.3-37 3.3-37
	M.1 Place channel in trip.	6 hours 3.3-37 Q 3.3-37
	OR	
	M.2 Reduce THERMAL POWER to < P-7.	12 hours

(continued)

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-125 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS SR 3.3.1.11 is modified by a Note that requires verification that the time constants are adjusted to the prescribed values. The addition of this Note is consistent with SR 3.3.1.10 and is required because SR 3.3.1.11 is used for the Power Range Neutron Flux - High Positive Rate [ ] trip function which has a time constant associated with its calibration.

Comment: SR 3.3.1.11 is applied to several functions that do not include time constants. Would it be better to reference SR 3.3.1.12 in these cases?

FLOG RESPONSE: SR 3.3.1.12 is not desired for this purpose since none of the FLOG plants have RTD bypass loops.

ATTACHED PAGES:

None

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-127 **APPLICABILITY:** DC

REQUEST:

The MODE 2 applicability for the undervoltage RCP start of the steam-driven AFW pump is deleted and the surveillance frequency is revised per the DCPP CTS. Thus, the Required Actions of Condition I are revised to include entering MODE 2 for Function 6.g and MODE 3 for Function 5.b, and the required surveillance is changed from SR 3.3.2.7 to SR 3.3.2.8.

Comment: 3.3.2, condition I.2.1 and I.2.2. These actions are formatted differently from other ITS actions. See comment 3.3.k.

FLOG RESPONSE: ITS LCO 3.3.2 ACTION I has been revised to limit the shutdown track to MODE 2, and the "not used" ACTION J has been used to create an action shutdown track for MODE 3 for Function 5.b. JFD 3.3-127 has been revised to justify these changes. Refer also to response to Comment Number Q 2-08.

ATTACHED PAGES:

Encl. 5A	3.3-33 and 3.3-47
Encl. 5B	B 3.3-118 and 119
Encl. 6A	10
Encl. 6B	20

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
I. One channel inoperable.	I.1 ----------NOTE------------ The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. ------------------------ Place channel in trip.	B 6 hours
	OR	
	I.2 ~~.1~~ e Be in MODE ~~3~~2.	12 hours 3.3-127
	~~AND~~ e	Q 3.3-127
	~~I.2.2 Be in MODE 3 for function 5.b.~~	~~12 hours~~
J. ~~NOT USED~~ e ~~One Main Feedwater Pumps trip channel inoperable.~~ INSERT ACTION J	~~J.1 Restore channel to OPERABLE status.~~	~~48 hours~~ 3.3-116
	~~OR~~	3.3-127 Q 3.3-127
	~~J.2 Be in MODE 3.~~	~~54 hours~~
K. ~~NOT USED~~ e ~~One channel inoperable.~~	~~K.1.1 NOTE One additional channel may be bypassed for up to 4 hours for surveillance testing.~~	Q 3-3-29
	~~Place channel in bypass.~~	~~6 hours~~
	~~OR~~	~~(continued)~~

INSERT ACTION K Q 3.3-29

[illegible]

[illegible]

Insert for Q 3.3-127

Enclosure 5A page 3.3-33
Insert ACTION J

One channel inoperable	J.1	---------NOTE-------------------- The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. ---------------------------------------	
		Place channel in trip.	6 hours
	<u>OR</u>		
	J.2	Be in MODE 3	12 hours

Table 3.3.2-1 (page ~~6~~7 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT~~(a)~~ ED
5. Turbine Trip and Feedwater Isolation						PS
a. Automatic Actuation Logic and Actuation Relays	1, 2(j), ~~[3]~~ ~~(j)~~	2 trains	H ~~[G]~~	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
						B B-PS
b. SG Water Level – High High (P-14)	1, 2(j), ~~[3]~~ ~~(j)~~	[3] per SG	J ~~[D]~~	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[84.2]~~ ~~75.5%~~ 75.2	Q 3.3-127 ≤ ~~[82.4]~~ 75% DC ALL-005
c. Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					DCALL-001
6. Auxiliary Feedwater				13		3.3-58 3.3-139
a. Manual	1,2,3	1 sw/pp	N	SR 3.3.2.8	NA	NA
~~a~~ b. Automatic Actuation Logic and Actuation Relays (Solid State Protection System)	1,2,3	2 trains	G	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA 3.3-55 Q 3.3-55
						3.3-01
c. NOT USED ~~b. Automatic Actuation Logic and Actuation Relays (Balance of Plant ESFAS)~~	~~1,2,3~~	~~2 trains~~	G	~~SR 3.3.2.3~~	NA	NA
					7.0	DC ALL-005 B-PS B 3.3-46
~~c~~d. SG Water Level – Low Low	1,2,3	[3] per SG	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[30.4]~~ ~~6.8%~~	Q 3.3-46 ≥ ~~[32.2]~~ 7.2%

BASES

ACTIONS H.1 and H.2 (continued)

an event occurring during this interval. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging unit systems. These Functions are no longer required in MODE 3. Placing the unit in MODE 3 removes all requirements for OPERABILITY of the protection channels and actuation functions. In this MODE, the unit does not have analyzed transients or conditions that require the explicit use of the protection functions noted above.

The Required Actions are modified by a Note that allows one train to be bypassed for up to ~~[4]~~ hours for surveillance testing provided the other train is OPERABLE. This allowance is based on the reliability analysis (Ref. 8) assumption that 4 hours is the average time required to perform channel surveillance.

I.1 and I.2

Condition I applies to~~:~~ e

- ~~SG Water Level - High High (P-14) (two, three, and four loop units), and~~ e
- Undervoltage Reactor Coolant Pump

Auxiliary Feedwater -

DC ALL-002

Q 3.3-127

~~If one channel of SG water level is inoperable, 6 hours are allowed to restore one channel to OPERABLE status or to place it in the tripped condition. If placed in the tripped condition, the Function is then in a partial trip condition where one-out-of-two or one-out-of-three logic will result in actuation. The 6 hour Completion Time is justified in Reference 8. Failure to restore the inoperable channel to OPERABLE status or place it in the tripped condition within 6 hours requires the unit to be placed in MODE 3 within the following 6 hours. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging unit systems. In MODE 3, thesethis Functions areis no longer required OPERABLE. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging unit systems. In MODE 3, thesethis Functions areis no longer required OPERABLE.~~ e

If one channel ~~of undervoltage reactor coolant pump~~ is inoperable, 6 hours are allowed to restore one channel to OPERABLE status or to place it in the tripped condition. If placed in the tripped condition, the function is then in a

Q 3.3-127

(continued)

BASES

ACTIONS

I.1 and I.2 (continued)

partial trip condition where one additional tripped channel will result in actuation. The 6 hour Completion Time is justified in Ref. 8. Failure to restore the inoperable channel it OPERABLE status or place it in the tripped condition withing 6 hours, requires the Unit to be placed in MODE 2 with in the following 6 hours. The allowed Completion time of 6 hours is reasonable, based on operating experience, to reach MODE 2 from full power conditions in an orderly manner without challenging unit systems. In MODE 2, this Function is no longer required OPERABLE.

The Required Actions are modified by a Note ~~that~~ allows the inoperable channel to be bypassed for up to 40 hours for surveillance testing of other channels. The 6 hours allowed to place the inoperable channel in the tripped condition, and the 4 hours allowed for a second channel to be in the bypassed condition for testing, are justified in Reference 8.

J.1 and J.2

INSERT ACTION J BASES Q 3.3-127

~~NOT USED~~

~~Condition J applies to the AFW pump start on trip of all MFW pumps.~~

~~This action addresses the train orientation of the SSPS for the auto start function of the AFW System on loss of all MFW pumps. The OPERABILITY of the AFW System must be assured by allowing automatic start of the AFW System pumps. If a channel is inoperable, 48 hours are allowed to return it to an OPERABLE status. If the function cannot be returned to an OPERABLE status, 6 hours are allowed to place the unit in MODE 3. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging unit systems. In MODE 3, the unit does not have any analyzed transients or conditions that require the explicit use of the protection function noted above. The allowance of 48 hours to return the train to an OPERABLE status is justified in Reference 8.~~

K.1.1 , K.1.2

~~K.1~~, K.2.1 and K.2.2

INSERT K

~~Condition K applies to:~~

- ~~RWST Level - Low Low Coincident with Safety Injection, and~~
- ~~RWST Level - Low Low Coincident with Safety Injection and Coincident with Containment Sump Level - High.~~

(continued)

[illegible]

[illegible]

Insert for Q 3.3-127

Enclosure 5B page B 3.3-119
Insert ACTION J Bases

If one channel is inoperable, 6 hours are allowed to restore one channel to OPERABLE status or to place it in the tripped condition. If placed in the tripped condition, the Function is then in a partial trip condition where one-out-of-two logic will result in actuation. The 6-hour Completion Time is justified in Reference 8. Failure to restore the inoperable channel to OPERABLE status or place it in the tripped condition within 6 hours requires the unit to be placed in MODE 3 within 12 hours. The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging unit systems. In MODE 3, this Function is no longer required OPERABLE.

The Required Actions are modified by a Note that allows the inoperable channel to be bypassed for up to 4 hours for surveillance testing of other channels. The 6 hours allowed to place the inoperable channel in the tripped condition, and the 4 hours allowed for a second channel to be in the bypassed condition for testing, are justified in Reference 8.

(B)

INSERT K

K.1.1, K.1.2

~~K.1~~ K.2.1 and K.2.2

Condition K applies to the Residual Heat Removal Pump Trip on RWST Level cut-out Low. ~~which trips both RHR pumps.~~ Restoring the channel to OPERABLE status or placing the inoperable channel in the ~~bypass~~ condition within 6 hours is sufficient to ensure that the Function remains OPERABLE, and minimizes the time that the Function may be in a partial trip condition (assuming the inoperable channel has failed low). Placing the out-of-service channel in ~~bypass will generate a high level signal on that channel, which will ensure that under no circumstances can a failure of an additional channel low prevent the RHR pumps from starting as the result of an SI signal~~. cut-out removes that channel from the trip logic, similar to a bypass function. [illegible] provides a [illegible]-out-of-two trip logic. The 6 hour Completion Time is justified in Reference 8. If the channel cannot be placed in the ~~bypass~~ cut-out condition within 6 hours, and returned to an OPERABLE status within ~~72~~ 48 hours, the unit must ~~immediately enter LCO 3.0.3.~~ be brought to MODE 3 within ~~the following 6~~ 54 hours and MODE 5 within ~~the next 30~~ 84 hours. ~~The 72 Hour Allowed Outage Time (AOT) is the same AOT that is allowed for one inoperable RHR pump. This comparison is reasonable because the possible consequences of losing a second level channel can, in the worst case, be no more severe than the loss of one RHR pump, and the probability of losing the level channel is even lower than that of losing an RHR pump.~~ ~~a second~~ The allowed Completion Times for shutdown are reasonable based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. In MODE 5, the unit does not have any analyzed transients or conditions that require the explicit use of the pump trip function noted above.

DC 3.5-Ed

Q 3.3-29

DC 3.3-Ed

CHANGE NUMBER	JUSTIFICATION
3.3-125	ITS SR 3.3.1.11 is modified by a Note that requires verification that the time constants are adjusted to the prescribed values. The addition of this Note is consistent with SR 3.3.1.10 and is required because SR 3.3.1.11 is used for the Power Range Neutron Flux - High Positive Rate [and High Negative Rate] trip functions which have a time constant associated with their calibration. Since the trip is bypassed below P-7 Q 2-08
3.3-126	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-127	The MODE 2 applicability for the undervoltage RCP start of the steam-driven AFW pump is deleted and the surveillance Frequency is revised per the DCPP CTS. Thus, the Required Actions of ACTION I are revised to include entering MODE 2 for function 6.g and MODE 3 for function 5.b ~~and~~. The required surveillance is changed from SR 3.3.2.7 to SR 3.3.2.8. This anticipatory start of the steam-driven AFW pump is not credited for MODE 2 operation, only the SG low level start signal is used for MODE 2 or 3. for Function 6.g. the previously NOT USED ACTION J is created to include entering Q 3.3-127
3.3-128	This change revises ITS Table 3.3.4-1 to be consistent with CTS 3.3.3.5.
3.3-129	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-130	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-131	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-132	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-133	This change revises ITS LCO 3.3.5 and SR 3.3.5.3 to include the DG start sequence delay timers from CTS Table 3.3-4.
3.3-134	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-135	A MODE change restriction has been added to ITS 3.3.1 Condition C per the matrix discussed in CN 1-02-LS-1 of the 3.0 package (see LS-1 NSHC in the CTS Section 3/4.0, ITS Section 3.0 package).
3.3-136	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-137	The Condition for Function 4.c is changed from Condition D to E consistent with the CTS. Plant design requires this Function to be bypassed, not tripped if inoperable. Insert 3.3-137 DC ALL-003

INSERT 6A table

Q 3-LS GEN

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-127	The MODE 2 applicability for the undervoltage RCP start of the steam-driven AFW pump is deleted and the surveillance frequency is revised per the DCPP CTS. Thus, the Required Actions of ACTION I are revised to include entering MODE 2 for function 6.g and MODE 3 for function 5.b. ~~and~~ the required surveillance is changed from SR 3.3.2.7 to SR 3.3.2.8 for Function 6.g.	Yes the previously NOT USED ACTION J is created to include entering	No	No	No Q 3.3-127
3.3-128	This change revises ITS Table 3.3.4-1 to be consistent with DCPP CTS 3.3.3.5.	Yes	No	No	No
3.3-129	Consistent with the CPSES CTS, the ITS requirement to have the Loss of Power Diesel Generator Start Instrumentation (ITS 3.3.5) applicable in Modes 5 and 6 when the associated DG is required to OPERABLE by ITS LCO 3.8.2 "AC Sources - Shutdown" is deleted. In these modes, the Reactor Coolant System or Reactor Vessel cavity temperatures are low enough that the time available for the reactor operators to manually start the diesel generators is adequate. Thus, there is no need to require the automatic loss of power DG start instrumentation to be operable in these modes.	No	Yes	No	No
3.3-130	Consistent with the CTS and the CPSES design, the Conditions, Required Actions and Surveillances are not applicable to the 6.9 kV Preferred Offsite Source Undervoltage function if the associated source breaker is open. When the associated source breaker is open, credit is not being taken for the immediate availability of the 6.9 kV Preferred Offsite AC power source.	No	Yes	No	No

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-128 **APPLICABILITY:** DC

REQUEST:

This change revises ITS Table 3.3.4-1 to be consistent with DCPP CTS 3.3.3.5.

Comment: The wording of the required number of functions for AFW controls was changes from "any 2 of 3 pumps" in the CTS to "2 of any 3 pumps" in the ITS. Explain the basis for this change.

FLOG RESPONSE: There was no intent to revise the requirement; thus ITS Table 3.3.4-1 for the AFW controls is revised to reflect the exact wording of the CTS.

ITS Table 3.3.4-1 has been revised to address the CTS Table 3.3-9 individual functions.

ATTACHED PAGES:

Encl. 5A 3.3-59

Table 3.3.4-1 (page 1 of ~~2~~1)
Remote Shutdown System Instrumentation and Controls

3.3-128

~~NOTE~~

~~Reviewer's Note: This table is for illustration purposes only. It does not attempt to encompass every Function used at every unit, but does contain the types of Functions commonly found.~~

ED

FUNCTION/INSTRUMENT OR CONTROL PARAMETER	REQUIRED NUMBER OF FUNCTIONS
1. ~~Reactivity Control~~	Q 3.3-128
~~a. Source Range Neutron Flux~~	~~[1]~~
~~b.~~ Reactor Trip Breaker Position	1 per trip breaker B
~~c. Manual Reactor Trip~~	~~[2]~~
2. ~~Reactor Coolant System (RCS) Pressure Control~~	
~~a.~~ Pressurizer Pressure ~~or RCS Wide Range Pressure~~	1
~~b. Pressurizer Power Operated Relief Valve (PORV) Control and Block Valve Control~~	~~[1, controls must be for PORV & block valve on same line)~~
3. ~~Decay Heat Removal via Steam Generators (SGs)~~	
~~a.~~ RCS Hot Leg Temperature (loop 1 only)	1 ~~per loop~~ Q 7-01
4. ~~b.~~ RCS Cold Leg Temperature (loop 1 only)	1 ~~per loop~~
5. ~~c.~~ AFW Controls ~~Condensate Storage Tank Level~~	~~[1]~~2 of any 3 AFW pumps Q 3.3-128
6 ~~d.~~ SG Pressure	1 per SG
9 ~~f.~~ Condensate Storage Tank Level	1
~~4.~~ ~~RCS Inventory Control~~	
10 ~~a.~~ Pressurizer Level	1
11 ~~b.~~ Charging Pump Controls	~~[1]~~2 of 2 pumps
12 ~~c.~~ Charging Flow	1
~~5. Safety Support Systems~~	
13 ~~a.~~ Emergency Diesel Generator Control	3 of 3 diesel generators
14 ~~b.~~ Component Cooling Water Control	any 2 of 3 pumps
15 ~~c.~~ Auxiliary Saltwater Control	2 of 2 pumps
7 SG Level	1 per SG
8 AFW Flow	1 per SG Q 7-10

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-129a **APPLICABILITY:** DC

REQUEST:

Incomplete ITS markup

Comment: The SG water level and AFW flow indication functions are omitted from ITS T3.3.4-1. This was neither identified as a change nor justified in the CTS markup. Revise the ITS.

FLOG RESPONSE: The ITS is revised to include the SG level and AFW flow. Due to comments on DOC 7-10-LS26, two separate entries are required to retain the CTS separate SG level and AFW flow instruments. Refer to Comment Number Q 7-10 response.

ATTACHED PAGES:

None

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-135 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

A MODE change restriction has been added to ITS 3.3.1 Condition C per the matrix discussed in CN 1-02-LS-1 of the 3.0 package.

Comment: Reject - The ITS proposes generic changes to the STS that are not included in an approved TSTF. The justification is inadequate.

Note: This WC ITS markup was not shown as a red line addition.

FLOG RESPONSE: The rationale behind JFD 3.3-135 remains valid, as discussed in LS-1 of the 3.0 package. As a result of discussions with NRC staff, the FLOG has clarified the note to make it more user friendly. No change to the JFD is required.

ATTACHED PAGES:

Encl. 5A	3.3-2
Encl. 5B	B 3.3-42

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
---NOTE--- While this LCO is not met for function 19, 20 or 21, IN ~~entry into MODE 5[(b)] from~~ MODE 5 is not permitted. ~~This NOTE is an exception to the requirements of LCO 3.0.4.~~ ---	, making the Rod Control System capable of rod withdrawal	@ 3.3-135 3.3-135
C. One channel or train inoperable.	C.1 Restore channel or train to OPERABLE status.	48 hours
	OR	TR 3.3-006
	C.2.1 Initiate action to ~~Open RTBs~~ fully insert all rods.	~~49~~ 48 hours 3.3-122
	AND	49 hours 3.3-122
	C.2.2 Place the Rod Control System in a condition incapable of rod withdrawal.	

BASES

ACTIONS C.1, ~~and~~ C.2.1, and C.2.2 (continued)

- Manual Reactor Trip;
- RTBs;
- RTB Undervoltage and Shunt Trip Mechanisms; and
- Automatic Trip Logic.

action must be initiated within the same 48 hours to fully insert all rods

TR 3.3-006

for the latter

This action addresses the train orientation of the SSPS for these Functions. With one channel or train inoperable, the inoperable channel or train must be restored to OPERABLE status within 48 hours. If the affected Function(s) cannot be restored to OPERABLE status within the allowed 48 hour Completion Time, the unit must be placed in a MODE in which the requirement does not apply. To achieve this status, ~~the RTBs must be opened~~ ~~rods must be fully inserted~~ and the Rod Control System rendered incapable of rod ~~withdrawn~~ within the next hour. The additional hour provides sufficient time to accomplish the action in an orderly manner. With the ~~RTBs open,~~ rods fully inserted and the Rod Control System rendered incapable of rod ~~withdrawn~~ these Functions are no longer required.

TR 3.3-006 must be withdrawal DC 3.3-E2

(e.g., by de-energizing all CRDMs, by opening the RTBs, or by de-energizing the motor generator (MG) sets)

Q 3.3-122

The Completion Time is reasonable considering that in this Condition, the remaining OPERABLE train is adequate to perform the safety function, and given the low probability of an event occurring during this interval.

while this LCO is not met for

Making

Q 3.3-135

Condition C is modified by a Note stating that ~~the transition from~~ MODE 5 ~~to MODE 6 with~~ the Rod Control System capable of rod withdrawal ~~or all rods~~ not fully inserted is not permitted for Functions 19, 20, or 21. This Note specifies an exception to LCO 3.0.4 for this MODE 5 transition and avoids placing the plant in a condition where control rods can be withdrawn while the reactor trip system is degraded. This note is in addition to the requirements of LCO 3.0.4 which preclude the transition from either MODE 3 or MODE 4 to MODE 3 or MODE 4 with the Rod control System capable of rod withdrawal or all rods not fully inserted for Functions 19, 20, or 21 with one channel or train inoperable.

D.1.1, D.1.2, D.2.1, D.2.2, and D.3

Condition D applies to the Power Range Neutron Flux-High Function.

The NIS power range detectors provide input to the ~~CRD~~Rod Control System ~~and the SG Water Level Control System~~ and, therefore, have a two-out-of-four trip logic. A known inoperable channel must be placed in the tripped condition. This results in a partial trip condition requiring only one-out-of-three logic for actuation. The 6 hours allowed to place the inoperable channel in the tripped condition is justified in WCAP-10271-P-A (Ref. 7).

(continued)

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.3-144 **APPLICABILITY:** DC

REQUEST:

SR 3.3.7.3 and 3.3.7.4 are deleted since there are no actuation logic or master relays associated with the CRVS pressurization system actuation via the CRVS atmosphere intake radiation monitors. The CRVS atmosphere intake monitors actuate the pressurization system directly via the CRVS relays and do not go through the SSPS. The only actuation of the CRVS pressurization mode of operation via the SSPS is via the SI signal actuation.

FLOG RESPONSE: This was a new comment as identified in the September 15, 1998 meeting minutes (Reference 5). Refer to response to Comment Number Q 3-08.

ATTACHED PAGES:

None

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: CA 3.3-006 **APPLICABILITY:** DC, CA

REQUEST:

Clarify Bases for SR 3.3.1.3.

ATTACHED PAGES:

Encl. 5B B 3.3-55

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.2 (continued)

the NIS ~~channel output~~power indications cannot be properly adjusted, the channel is declared inoperable.

Two Notes modify SR 3.3.1.2. The first Note indicates that the NIS ~~channel output~~power indications shall be adjusted consistent with the calorimetric results if the absolute difference between the NIS ~~channel output~~power indications and the calorimetric is > 2% RTP. The second Note clarifies that this Surveillance is required only if reactor power is ≥ 15% RTP and that ~~12~~ 24 hours is allowed for performing the first Surveillance after reaching 15% RTP but prior to exceeding 30% RTP. At lower power levels, calorimetric data are inaccurate.

DC 3.3-Ed

The Frequency of every 24 hours is adequate. It is based on unit operating experience, considering instrument reliability and operating history data for instrument drift. Together these factors demonstrate the change in the absolute difference between NIS and heat balance calculated powers rarely exceeds 2% in any 24 hour period.

In addition, control room operators periodically monitor redundant indications and alarms to detect deviations in channel outputs.

SR 3.3.1.3

SR 3.3.1.3 compares the incore system to the NIS channel output every 31 EFPD. If the absolute difference is ≥ 3%, the NIS channel is still OPERABLE, but must be readjusted. INSERT SR 3.3.1.3 CA 3.3-006

If the NIS channel cannot be properly readjusted, the channel is declared inoperable. This Surveillance is performed to verify the f(ΔI) input to the overtemperature ΔT Function.

Two Notes modify SR 3.3.1.3. Note 1 indicates that the excore NIS channel shall be adjusted if the absolute difference between the incore and excore AFD is ≥ 3%. DC ALL-002 Note 2 clarifies that the Surveillance is required only if reactor power is ≥50% ~~[15%]~~ RTP and that 24 hours is allowed for performing the first Surveillance after reaching 50% ~~[15%]~~ RTP.

The Frequency of every 31 EFPD is adequate. It is based on unit operating experience, considering instrument reliability and operating history data for instrument drift. Also, since the ~~slow~~ changes in neutron flux are slow during the fuel cycle ~~can be detected during this interval~~, the expected change in the absolute difference between the incore and excore AFD will be less than 3 percent AFD during this interval.

(continued)

[illegible]

Insert for CA 3.3-006

Enclosure 5A page B 3.3-55
Insert SR 3.3.1.3

The sole purpose of the comparison is to check for differences due to changes in core power distribution since the last calibration.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: CA 3.3-012 **APPLICABILITY:** DC

REQUEST:

Revise JFD 3.3-66 to complete and clarify the change description.

Revise JFD 3.3-69 by deleting the word "not" that was inadvertently inserted and revise applicability of FLOG members by stating "adopted ITS format".

ATTACHED PAGES:

Encl. 6A	5 and 6
Encl. 6B	11

CHANGE NUMBER	JUSTIFICATION
3.3-51	ITS ACTION B.2 of LCO 3.3.7 is deleted, since DCPP cannot operate with both pressurization systems running at the same time. The design of the system is such that operation of two pressurization fans would over pressurize the supply ducting to the filters.
3.3-52	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-53	The REQUIRED CHANNELS description for Functions 2.a and 3.b.(1), of ITS Table 3.3.2-1, are revised per the CTS to note that only two switches (one per train) exist and that both must be moved coincident for manual initiation.
~~3.3-54~~	Function 18.b (P-7) of ITS Table 3.3.1-1 is clarified to add [SR 3.3.1.17] and delete SR 3.3.1.11 and SR 3.3.1.13. ~~COTs and Channel Calibrations apply to the P-10 and P-13 inputs, not to the P-7 logic function.~~ Logic functions are tested under SR 3.3.1.5 [and SR 3.3.1.17]. This change is an ~~administrative clarification to address the relationships between these interlocks in the plant's design.~~ [ ]. The ITS approach of listing [an ALT] against function 18.b has been previously approved for Vogtle. Q 3.3-54
~~3.3-55~~	~~Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).~~ INSERT 3.3-55 Q 3.3-55
3.3-56	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-57	Not used.
3.3-58	This change adds new ITS 3.3.2 Condition [N] to reflect current TS Table 3.3-3 ACTION Statement [24] on manual AFW [and manual MSIV closure] initiation.
3.3-59	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B). DC ALL-002
3.3-60	Consistent with the design and current TS, Surveillance Requirements [3.3.2.3 and 3.3.2.7 ~~are~~ is not used by any function listed in Table 3.3.2-1 and are deleted. DC ALL-001
3.3-61	This change revises the ITS SR 3.3.2.11 Frequency to ~~18~~ [24] months per current TS Table 4.3-2 Functional Unit [8.c], which is the ESFAS P-4 permissive. The ~~18~~ month Frequency for the surveillance of the basic switch logic associated with the opening of the reactor trip breakers is the value specified in the current TS. [Deleted the Note stating that verification of set point is not required per the CTS.]
3.3-62	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-63	This change revises ITS Table 3.3.2-1 [Notes (b) and (g)] per current TS Table [3.3-3] Notes [# and ##]. This revision is a clarification to the operator that describes the circumstances under which the [Steamline Pressure Negative Rate - High, Steam Pressure-low, or Pressurizer Pressure-low functions may be or are blocked relative to the] P-11 permissive.
3.3-64	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-65	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-66	The MODE 4 requirement of the CTS is retained and added to Table 3.3.2-1 for SI actuated by Containment Pressure high-high. ~~ITS 3.3.2 ACTIONS D and E are revised accordingly.~~ INSERT 3.3-66(a) CA 3.3-012
3.3-67	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

[illegible]

Insert for CA 3.3-012

Enclosure 6A page 5
Insert 3.3-66 (a)

, by Containment Pressure high, and for both Containment Spray and Containment Phase B Isolation actuated by Containment Pressure high-high. ITS ACTION E is revised and a new ACTION O is created to provide a shutdown track for these MODE 1 through 4 functions.

CHANGE NUMBER	JUSTIFICATION
	Not used.
3.3-68	~~A Note is added to state that CONDITION D is only applicable in MODES 1 and 2. A new CONDITION H is added to require entering MODE 3 if CONDITION B is not met when entered due to not meeting CONDITION D. These changes are per the CTS.~~ Q 3.3-68
3.3-69	The phrase "...that is ~~not~~ normally energized" is deleted per the CTS. All of the instrumentation listed is normally energized at power. CA 3.3-012 DC ALL-003
3.3-70	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-71	This change revises Table 3.3.3-1 per the reviewers note to update CTS PAM instruments per the requirements of Reg. Guide 1.97.
3.3-72	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-73	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-74	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-75	The CHANNEL FUNCTIONAL TEST is substituted for the COT per current licensing basis.
3.3-76	Consistent with the current design and TS, a Trip Actuating Device Operational Test (TADOT) is not required for any of the functions explicitly listed in Table 3.3.6-1; therefore, the associated Surveillance Requirement is deleted. Note that a TADOT is required in accordance with LCO 3.3.2 for functions 3.a.1 and 2.a, as referenced in the Table.
3.3-77	Containment Vent Isolation is initiated by the ESFAS Phase "A" isolation signals. As such, the number of required channels and required surveillances for the manual initiation of Containment Vent Isolation are captured by the requirements for Phase "A" isolation in the ESFAS tables. INSERT 3.3-77 Q 3.3-77
3.3-78	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-79	This change adds APPLICABILITY columns to ITS Tables 3.3.6-1 and 3.3.7-1 to reflect current TS with varying Functional Applicabilities. This change is consistent with the format used for the RTS and ESFAS instrumentation in the ITS and is a clearer method to present varying Applicabilities from the current TS. These changes are administrative format changes that insert the Applicabilities from the current TS into Tables 3.3.6-1 and 3.3.7-1. This change is consistent with travelerTSTF-161 INSERT 3.3-79 Q 3.3-79
3.3-80	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-81	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-82	The CONDITIONS, REQUIRED ACTIONS, etc. are revised per the current licensing basis. The plant FBACS does not perform any accident mitigation functions except during the fuel handling accident
3.3-83	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-84	The Note of SR 3.3.4.4 is deleted since Table 3.3.4-1 does not have a neutron detector specified per the current TS.
3.3-85	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-65	A Note is added to the steam generator water level - high-high trip function to reflect the CPSES design and CTS. In the CPSES design, only three channels of the four steam generator water level signals provide input to this trip function. Therefore, in order to satisfy the single failure criterion, if one of these three channels is used as input to the Steam Generator Water Level Control System, its associated bistable must be placed in the tripped state.	No	Yes	No	No
3.3-66	The DCPP-specific MODE 4 requirement of the CTS is retained and added to Table 3.3.2-1 for SI actuated by Containment Pressure High INSERT 3.3-66(b)	Yes Containment Pressure High-High,	No	No	No CA 3.3-012
3.3-67	In PAMS, add CPSES-specific operability requirements and Required Actions for the T-hot and T-cold indications consistent with both the current licensing basis and the intent of NUREG-1431. If a T-hot indication is unavailable, equivalent information is available from the Core Exit Temperature indication which is also a RG 1.97 variable. Similarly, if a T-cold indication is unavailable, equivalent information may be derived through the use of the steam generator pressure and steam tables, because the RCS cold leg temperature closely follows the steam generator saturation temperature.	No	Yes	No	No
3.3-68 Not used.	~~A DCPP-specific Note is added to state that CONDITION D is only applicable in MODES 1 and 2. A new CONDITION H is added to require entering MODE 3 if CONDITION B is not met when entered due to not meeting CONDITION D.~~	~~Yes~~ NA	~~No~~ NA	~~No~~ NA	~~No~~ NA Q 3.3-68
3.3-69	The phrase "...that is ~~not~~ normally energized" is deleted per the CTS. All of the instrumentation listed is normally energized at power.	Yes	No, adopted ITS format.	No, adopted ITS format	No, adopted ITS format DC ALL-003 CA 3.3-012
3.3-70	The PAM instrumentation list is modified to reflect the CPSES design and CTS.	No, see CN 3.3-71.	Yes	No, see CN 3.3-21.	No, see CN 3.3-21.

[illegible]

Insert for CA 3.3-012

Enclosure 6B page 11
Insert 3.3-66 (b)

, and for both Containment Spray and Containment Phase B Isolation actuated by Containment Pressure high-high. ITS ACTION E is revised and a new ACTION O is created to provide a shutdown track for these MODE 1 through 4 functions.

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: CA-3.3-014 **APPLICABILITY:** CA, DC, WC

REQUEST:

Revise ITS 3.3.1 and ITS 3.3.2 Bases to discuss two-sided calibration tolerance bands and their relationship to Trip Setpoint inequality signs.

ATTACHED PAGES:

Encl. 5B B 3.3-4, B 3.3-5, B 3.3-64, B 3.3-67, and B 3.3-68

BASES

BACKGROUND

Signal Process Control and Protection System (continued)

prevent the protection function actuation. These requirements are described in IEEE-279-1971 (Ref. 4). The actual number of channels required for each unit parameter is specified in Reference 1.

Two logic channels are required to ensure no single random failure of a logic channel will disable the RTS. The logic channels are designed such that testing required while the reactor is at power may be accomplished without causing trip. INSERT BASES (1) Q3.3.6-1 DC 3.3-005 (a) Insert DC3.3-Ed

Trip Setpoints and Allowable Values two sided tolerance CA 3.3-014

The Trip Setpoints are the nominal values at which the bistables are set. Any bistable is considered to be properly adjusted when the "as left" value is within the band for CHANNEL CALIBRATION ~~accuracy~~ tolerance ~~(i.e., ± rack calibration + comparator setting accuracy)~~. INSERT B 3.3.1 BKG (B) DC ALL-005

The Trip Setpoints used in the bistables are based on the analytical limits stated in Reference 1. The selection of these Trip Setpoints is such that adequate protection is provided when all sensor and processing time delays are taken into account. To allow for calibration tolerances, instrumentation uncertainties, instrument drift, and severe environment errors for those RTS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 5), the Trip Setpoints and Allowable Values specified in Table 3.3.1-1 in the accompanying LCO are conservatively adjusted with respect to the analytical limits. A detailed description of the methodology used to calculate the Trip Setpoints, including their explicit uncertainties, is provided in the ~~"RTS/ESFAS Setpoint Methodology~~ ~~Study"~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagel 21 Version," May 1993 (Ref. 6). Q3.3.G-1 The actual nominal Trip Setpoint entered into the bistable is more conservative than that specified by the Allowable Value to account for changes in random measurement errors detectable by a COT. One example of such a change in measurement error is drift during the surveillance interval. If the measured setpoint does not exceed the Allowable Value, the bistable is considered OPERABLE.

INSERT B 3.3.1 BKG (D) DC ALL-005

(continued)

BASES

BACKGROUND (continued)

Trip Setpoints and Allowable Values

Setpoints in accordance with the Allowable Value ensure that SLs are not violated during AOOs (and that the consequences of DBAs will be acceptable, providing the unit is operated from within the LCOs at the onset of the AOO or DBA and the equipment functions as designed). Note that in the accompanying LCO 3.3.1, the ~~Trip Setpoints~~ Allowable Values of Table 3.3.1-1 are the LSSS as defined in 10 CFR 50.36. G 2-06 (2:0)

Each channel of the process control equipment can be tested on line to verify that the signal or setpoint accuracy is within the specified allowance requirements ~~of Reference 2~~. Once a designated channel is taken out of service for testing, a simulated signal is injected in place of the field instrument signal, or in the case of the Power Range channels the test signal is added to the field instrument signal. The process equipment for the channel in test is then tested, verified, and calibrated. SRs for the channels are specified in the SRs section.

The Trip Setpoints and Allowable Values listed in Table 3.3.1-1 are based on the methodology described in Reference 6, which incorporates all of the known uncertainties applicable for each channel. The magnitudes of these uncertainties are factored into the determination of each Trip Setpoint. All field sensors and signal processing equipment for these channels are assumed to operate within the allowances of these uncertainty magnitudes.

INSERT B 3.3.1 BKG (C) DC ALL-005

INSERT CA 3.3-014(a) CA 3.3-014

Solid State Protection System

The SSPS equipment is used for the decision logic processing of outputs from the signal processing equipment bistables. To meet the redundancy requirements, two trains of SSPS, each performing the same functions, are provided. If one train is taken out of service for maintenance or test purposes, the second train will provide reactor trip and/or ESF actuation for the unit. If both trains are taken out of service or placed in test, a reactor trip will result. Each train is packaged in its own cabinet for physical and electrical separation to satisfy separation and independence requirements. The system has been designed to trip in the event of a loss of power, directing the unit to a safe shutdown condition.

(continued)

[illegible]

Insert for CA 3.3-014

Enclosure 5B page B 3.3-5
Insert 3.3-014 (a)

The inequality sign only indicates conservative direction. The as-left value will be within a two-sided calibration tolerance band on either side of the nominal value. This also applies to the Overtemperature ΔT and Overpower ΔT K values per reference 16.

BASES

14. WCAP-13900, "Extension of Slave Relay Surveillance Test Intervals", April 1994

15. WCAP-14117, "Reliability Assessment of Potter and Brumfield MDR Series Relays."

16. WCAP-9226, "Reactor Core Response to Excessive Secondary Steam Releases," Revision 1, January 1978.

DC ALL-002

17. WCAP-11082, Rev. 5, "Westinghouse Setpoint Methodology for Protection Systems, Diablo Canyon Units 1 and 2, 24 month Fuel Cycle Evaluation," January 1997.

BASES

BACKGROUND

Signal Processing Equipment (continued)

actuation. Again, a single failure will neither cause nor prevent the protection function actuation.

These requirements are described in IEEE-279-1971 (Ref. 4). The actual number of channels required for each unit parameter is specified in Reference 2.

The channels are designed such that testing required to be performed at power may be accomplished ~~without causing an ESF actuation~~. INSERT B 3.3.2 BKG (1) DC ALL-002

Trip Setpoints and Allowable Values

two-sided tolerance CA 3.3-014

The Trip Setpoints are the nominal values at which the bistables are set. Any bistable is considered to be properly adjusted when the "as left" value is within the band for ~~CHANNEL CALIBRATION~~ calibration accuracy. INSERT 3.3-2 (A) Q 2-06 (2.0)

The Trip Setpoints used in the bistables are based on the analytical limits stated in Reference 2. The selection of these Trip Setpoints is such that adequate protection is provided when all sensor and processing time delays are taken into account. To allow for calibration tolerances, instrumentation uncertainties, instrument drift, and severe environment errors for those ESFAS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 5), the Trip Setpoints and Allowable Values specified in Table 3.3.2-1 in the accompanying LCO are conservatively adjusted with respect to the analytical limits. A detailed description of the methodology used to calculate the Trip Setpoints, including their explicit uncertainties, is provided in ~~the "RTS/ESFAS Setpoint Methodology Study" Study"~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagle 21 Version," May 1993(Ref. 6). The actual nominal Trip Setpoint entered into the bistable is more conservative than that specified by the Allowable Value to account for changes in random measurement errors detectable by a COT. One example of such a change in measurement error is drift during the surveillance interval. If the measured setpoint does not exceed the Allowable Value, the bistable is considered OPERABLE. INSERT B 3.3.2 BKG (F) DC ALL-005

Insert Strike out DC ALL-002

INSERT B 3.3.2 BKG (H)

Setpoints in accordance with the Allowable Value ensure that the consequences of Design Basis Accidents (DBAs) will be acceptable, providing the unit is operated from within the LCOs at the onset of the DBA and the equipment functions as designed.

(continued)

BASES

BACKGROUND

Trip Setpoints and Allowable Values (continued)

~~Each~~ Certain channels can be tested on line to verify that the signal processing equipment and setpoint accuracy is within the specified allowance requirements of Reference 2. Once a designated channel is taken out of service for testing, a simulated signal is injected in place of the field instrument signal. The process equipment for the channel in test is then tested, verified, and calibrated. SRs for the channels are specified in the SR section.

The Trip Setpoints and Allowable Values listed in Table 3.3.2-1 are based on the methodology described in Reference 6, which incorporates all of the known uncertainties applicable for each channel. The magnitudes of these uncertainties are factored into the determination of each Trip Setpoint. All field sensors and signal processing equipment for these channels are assumed to ~~operate within the allowances~~ of these uncertainty magnitudes.

INSERT B 3.3.2 BKG (G)

DC ALL-005

Solid State Protection System

The SSPS equipment is used for the decision logic processing of outputs from the signal processing equipment bistables. To meet the redundancy requirements, two trains of SSPS, each performing the same functions, are provided. If one train is taken out of service for maintenance or test purposes, the second train will provide ESF actuation for the unit. If both trains are taken out of service or placed in test, a reactor trip will result. Each train is packaged in its own cabinet for physical and electrical separation to satisfy separation and independence requirements.

The SSPS performs the decision logic for most ESF equipment actuation; generates the electrical output signals that initiate the required actuation; and provides the status, permissive, and annunciator output signals to the main control room of the unit.

The bistable outputs from the signal processing equipment are sensed by the SSPS equipment and combined into logic matrices that represent combinations indicative of various

CA 3.3-014

INSERT CA 3.3-014(b)

(continued)

[illegible]

Insert for CA 3.3-014

Enclosure 5B page B 3.3-68
Insert 3.3-014 (b)

The inequality sign only indicates conservative direction. The as-left value will be within a two-sided calibration tolerance band on either side of the nominal value.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: CP-3.3-001 **APPLICABILITY:** DC & CP

REQUEST:

CN 12-06-LG for CTS Section 3/4.6 indicated that calibration details required by SR 4.6.4.1.b (4.6.4.1 for DCPP) were moved to the ITS Bases for SR 3.3.3.2. The Bases description of those details was inadvertently omitted in the submittal and is being added now. For DCPP, refer to response to Q 12-05(3.6) that includes the calibration details from CTS 4.6.4.1.

ATTACHED PAGES:

None

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC 3.3-ED **APPLICABILITY:** DC

REQUEST:

Various changes that do not impact the technical content of the submittal or other FLOG members. Changes are noted with DC 3.3-Ed in the margin and noted below:

1) JFD 3.3-11 is revised to be consistent with Note (f) of Table 3.3.1-1.
2) SR 3.3.1.7 is revised per response to Q 3.3-111.
3) Revise Bases SR 3.3.1.5 to SR 3.3.1.17 on page B 3.3-63.
4) Function 14 on Table 3.3.1-1 is corrected.
5) The Containment Purge and Exhaust Isolation has been revised to Containment Ventilation Exhaust Isolation.
6) Inserted "Monitor" in function 2.c. of CTS Table 4.3-3.
7) The word "emergency" is inserted into the BACKGROUD of 3.3.7 to be consistent with revisions to the Bases for 3.7.10. This allows distinction from the normal operating mode and the three emergency operating modes. Pressurization is the only automatically actuated mode.
8) Corrects the Functional unit reference of DOC 02-08 by deleting 6.d. Enclosure 1 for CTS 3.3.1, Table 3.3.2, DOC 01-35-LG, is revised to state that the table has been moved to the FSAR not the Bases.
9) The DC ALL-002 insert for ACTION 36 was revised from the "97-09 Errata" submittal to refer to the "Required Channels" not "Total Number of Channels", and "Hot Standby" and "Cold Shutdown" were capitalized.
10) Revise JFD 3.3-31 to delete FSAR in the first sentence and substitute CTS.
11) The discussion of preplanned alternate monitoring for RVLIS is deleted from NSHC LS17, since this is not part of the DCPP CTS for PAMS.
12) Enclosure 3B for 02-19-LG is revised to include all of the functions and tables where the DOC is applied.
13) Strike out was completed in SR 3.3.1.12.
14) The DCPP submittal for NSHC LS8 incorrectly referred to FUNCTIONAL UNIT 14, which for DCPP is a previously deleted FUNCTIONAL UNIT and instead should have referred to FUNCTIONAL UNIT 16. LS8 has been corrected.
15) The bracketed information in the second to last sentence is deleted from NSHC LS17 since it is not applicable to DCPP.
16) Inserted "(MMF)" into note (l) to define the MMF used in Function 10.
17) DOC is added as being applicable to CTS ACTION 15.
18) The frequency of STAGGERED TEST BASIS should be 31 days not 62 per the new STAGGERED TEST BASIS DEFINITION from Section 1.0.
19) DOC 1-01-A is revised to include an application not originally in the DOC.
20) DOC 3-06-A is revised to include an application not originally in the DOC.
21) JFD 3.3-22 Enclosure 3A is revised to delete reference to the RCP Breaker indication, which is not part of the DCPP Remote Shutdown indication requirements.
22) Function 2.b is revised to state that the actuation is via control switches not push buttons.

[illegible]

23) The DOC applicability for CTS Table 4.3-2 Functional Unit 9, is revised from 01-29-M to 02-29-M.
24) The explanation of the required action times for ACTION K in the 3.3.2 Bases is revised to be consistent with the ITS format.
25) Other minor editorial changes, such as typographical, punctuation, spelling, etc. may not be specifically identified by page, but are included in the markup and will be included in the ITS and Bases clean copy.

ATTACHED PAGES:

Encl. 2	3/4 3-7, 3/4 3-13a, 3/4 3-14, 3/4 3-21, 3/4 3-22a, 3/4 3-23, 3/4 3-24, 3/4 3-25, 3/4 3-26, 3/4 3-27, 3/4 3-34, 3/4 3-37, 3/4 3-39, 3/4 3-50, 3/4 3-51, 3/4 3-52, 3/4 3-52a
Encl. 3A	1, 5, 7, 15, 19
Encl. 3B	1, 7, 15, 17, 27 of 31
Encl. 4	29, 41
Encl. 5A	3.3-16, 3.3-21, 3.3-64, 3.3-65, 3.3-66, 3.3-67, 3.3-68, 3.3-73, 3.3-79
Encl. 5B	B 3.3-4, B 3.3-10, B 3.3-13, B3.3-17, B 3.3-19, B 3.3-34, B 3.3-35, B 3.3-37, B 3.3-38, B 3.3-41, B 3.3-42, B 3.3-55, B 3.3-63, B 3.3-69, B 3.3-71, B 3.3-73, B 3.3-82, B 3.3-90, B 3.3-115, B 3.3-116, B 3.3-117, B 3.3-119 (Insert K), B 3.3-129, B 3.3-147, B 3.3-150 (Insert A), B 3.3-163, B 3.3-164, B 3.3-165, B 3.3-166, B 3.3-167, B 3.3-168, B 3.3-169, B 3.3-170, B 3.3-171, B 3.3-172, B 3.3-173, B 3.3-174, B 3.3-178, B 3.3-181
Encl. 6A	2, 3, 9

Remove strikeout

TABLE 3.3-1 (Continued)
ACTION STATEMENTS (Continued)

~~ACTION 9 - With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within the next 6 hours.~~ Or reduce Thermal Power to < P-7 in 12 hours. Note that the inoperable channel may be bypassed for up to 4 hours for surveillance testing. 01-49-LS18 Q 1-49

ACTION 10 - With the number of ~~channels~~trains OPERABLE one less than the ~~Minimum~~ ~~Total Number of~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable train to operable status within 1 hour, or be in at least HOT STANDBY within ~~6~~ 7 hours; however, one ~~channel~~train may be bypassed for up to 2 hours for maintenance or surveillance testing ~~per Specification 4.3.1.1~~ provided the other channel is OPERABLE. 01-04-LG 01-66-LS45 Q 3.3j 01-13-LS6 TR 3.3-006

initiate action to fully insert all rods AND

ACTION 11 - With the number of OPERABLE channels or trains one less than the ~~Minimum~~Required Channels or trains ~~OPERABLE requirement~~, restore the inoperable channel or train to OPERABLE status within 48 hours or ~~open the Reactor trip breakers~~ within the next hour ~~fully insert all rods and~~ place the Rod control System in a condition incapable of rod withdrawal. 01-04-LG 01-55-LS39

ACTION 12 - With one of the diverse trip features (Undervoltage or shunt trip attachment) inoperable, restore it to OPERABLE status within 48 hours or ~~declare the breaker inoperable and apply ACTION 10~~ be in at least HOT STANDBY within the next 6 hours. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status. 01-14-A

ACTION 13 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 01-43-A

DC 3.3 Ed

~~a. The Minimum Channels OPERABLE requirement is met, and~~ 01-04-LG

a ~~b.~~ The inoperable channel is placed in the tripped conditions within 6 hours; however, the inoperable channel may be bypassed for up to 72 hours for surveillance testing ~~per Specification 4.3.1.1~~ or for performing maintenance, OR 01-66-LS45 Q 3.3j 01-67-M Q 3.3-46

c. Be in MODE 3 in 12 hours.

ACTION 26 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable Channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~ provided the other channel is OPERABLE. 01-04-LG 01-66-LS45 Q 3.3j

ACTION 27 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected RCS Loop Delta-T channel(s), either: 01-43-A

a. The Trip Time Delay threshold power level for zero seconds time delay is adjusted to 0% RTP, or

b. With the number of OPERABLE channels one less than the ~~Total Number of~~Required Channels, the affected Steam Generator Water Level-Low-Low channels are placed in the tripped condition. 01-43-A

Remove Strike Out

~~ACTION 28 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:~~ ~~01-60-A~~ 01-19-LS8

~~a. The inoperable channel is placed in the trip condition within 6 hours, and~~
~~b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1.~~, or

c. Reduce Thermal Power to < P-7 within 12 hours.

DC 3.3-003

TABLE NOTATIONS

* - When ~~the Reactor Trip System breakers are closed and~~ the Control Rod Drive System is capable of rod withdrawal or all rods not fully inserted. 01-55-LS39

\## - Below P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.

\### - Below P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.

(1) - If not performed in previous ~~31~~ 92 days. 01-24-LS9

(1a) - If not performed in previous 31 days. 01-24-LS9

(2) - Heat balance only, above 15% of RATED THERMAL POWER. During startup in MODE 1 above 15% of RATED THERMAL POWER, the required heat balance shall be performed prior to exceeding 30% of RATED THERMAL POWER, or within 24 hours, whichever occurs first. Adjust channel if absolute difference greater than 2%. ~~The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.~~ 01-25-~~M~~ 01-25

(3) - Compare incore to excore axial flux difference ~~above~~ within 24 hours after Thermal Power is greater that or equal to ~~15~~50% of RATED THERMAL POWER and at least once per 31 Effective Full Power days. Re-calibrate if the absolute difference is greater than or equal to 3%. ~~The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.~~ 01-25-~~M~~ 01-25

(4) - Neutron detectors may be excluded from CHANNEL CALIBRATION.

(5) - ~~Detector plateau curves shall be obtained and evaluated for the source range neutron flux channels. For the Intermediate Range and Power Range Neutron Flux channels a test shall be performed that shows allowed variances of detector voltage do not effect detector operation.~~ For the Intermediate Range and Power Range Neutron Flux Channels the provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1. 01-26-LG

(6) - Incore - Excore Calibration, ~~above~~ within 24 hours after Thermal Power is ≥ 75% of RATED THERMAL POWER and at least once per 92 Effective Full Power days. ~~The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.~~ 01-25-~~M~~ 01-25

(7) - Each train shall be tested at least every ~~62~~ 31 days on a STAGGERED TEST BASIS.

~~(8) - Quarterly Surveillance in MODES 3*, 4* and 5* performed quarterly and prior to startup shall also include verification that permissives P-6 and P-10 are in their required state for existing plant conditions by observation of the permissive annunciator window.~~ ~~01-28-A~~ 01-68-LS54 DC 3.3-004

(9) - Setpoint verification is not applicable.

~~(10) - The TRIP ACTUATING DEVICE OPERATIONAL TEST shall separately verify the OPERABILITY of the undervoltage and shunt trip attachments of the Reactor Trip Breakers.~~ 01-32-LG

(11) - Deleted

(12) - Deleted

(13) - Deleted

TABLE 4.3-1 (Continued)

TABLE NOTATIONS

~~(14)~~	~~The TRIP ACTUATING DEVICE OPERATIONAL TEST shall independently verify the OPERABILITY of the undervoltage and shunt trip circuits for the Manual Reactor Trip Function. The test shall also verify the OPERABILITY of the Bypass Breaker trip circuit(s).~~	01-32-LG
(15)	Test local manual shunt trip prior to placing breaker in service.	
~~(16)~~	~~Test automatic undervoltage trip.~~	01-32-LG
(19) (new)	The CHANNEL OPERATIONAL TEST shall be performed within 12 hours after reducing power below P-10 for the power range and intermediate range instrumentation and within 4 hours after reducing power below P-6 for the source range instrumentation, if not performed within the previous 92 days. With the Rod Control System capable of rod withdrawal, or ~~all~~ one or more rods not fully inserted, the COT is not required prior to entering MODE 3 from MODE 2 until 4 hours after entering MODE 3. TR 3.3-006	01-22-M 01-27-LS10
(20)	Surveillance shall also include verification that permissives P-6 (new) and P-10 are in their required state for existing plant conditions. DC 3.3-Ed	01-22-M
(22) (new)	Includes verification of time constants.	01-23-A

3/4.3.2 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

01-63-A
Q 1-A GEN

LIMITING CONDITION FOR OPERATION

02-01-A

3.3.2 The Engineered Safety Features Actuation System (ESFAS) instrumentation channels and interlocks shown in Table 3.3-3 shall be OPERABLE with their Trip Setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4 ~~and with RESPONSE TIMES as shown in Table 3.3-5.~~ 01-35-LG

APPLICABILITY: As shown in Table 3.3-3.

ACTION: * 01-01-A

a. With an ESFAS Instrumentation Channel or Interlock Trip Setpoint less conservative than the value shown in the Trip Setpoint column but more conservative than the value shown in the Allowable Values column of Table 3.3-4, adjust the Setpoint consistent with the Trip Setpoint value. 02-04-LG

b. With an ESFAS Instrumentation Channel or Interlock Trip Setpoint less conservative than the value shown in the Allowable Values column of Table 3.3-4, declare the channel inoperable and apply the applicable ACTION statement requirements of Table 3.3-3 until the channel is restored to OPERABLE status with its Trip Setpoint adjusted consistent with the Trip Setpoint value. 02-04-LG

SURVEILLANCE REQUIREMENTS

4.3.2.1 Each ESFAS instrumentation channel and interlock and the automatic actuation logic and relays shall be ~~demonstrated~~verified OPERABLE by the performance of the Engineered Safety Feature Actuation System Instrumentation Surveillance Requirements specified in Table 4.3-2. 01-03-LS1

Q 3.3-55

4.3.2.2 The ~~required~~ ENGINEERED SAFETY FEATURES RESPONSE TIME of each ESFAS function shall be ~~demonstrated~~ verified to be within the limit at least once per 18 months on a STAGGERED TEST BASIS**. ~~Each test shall include at least one train such that both trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" column of Table 3.3-3.~~ 01-02-LG 01-03-LS1 02-40-A

e 24 24 48

DC ALL-001

DC 3.3-Ed

(new) * Separate ACTION entry is allowed for each Functional Unit. 01-01-A

(new) ** Not required to be performed for the turbine driven auxiliary feedwater pump until 24 hours after steam generator pressure ≥650 psig. 02-40-A

TABLE NOTATIONS

02-22-A
Q 3.3-63

\# Trip function may be blocked in this MODE below the P11 (Pressurizer Pressure Interlock) Setpoint.

\## Trip function ~~automatically~~ blocked above P-11 (Pressurizer Pressure Interlock) Setpoint and is ~~automatically~~ blocked below P-11 when Safety Injection on Steam Line Pressure-Low is not blocked. 02-30-LG Q 3.3-63

\### For Mode 3, the Trip Time Delay associated with the Steam Generator Water Level-Low-Low channel must be less than or equal to 464.1 seconds. 02-36-~~M~~ LS49 Q 2-36

(new) ** When associated DG is required to be OPERABLE by LCO 3.8.1.2, "AC Sources-Shutdown."

(new) (a) Not applicable when all MSIVs are closed and deactivated. 02-07-LS11

(new) (b) Not applicable when all MFIVs, main feedwater regulating valves and main feedwater regulating bypass valves are closed and deactivated or isolated by a closed manual isolation valve. 02-07-LS11

ACTION STATEMENTS

ACTION 14 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~, provided the other channel is OPERABLE. 01-04-LG 01-66-LS95 Q 3.3j

ACTION 15 - With the number of OPERABLE Channels less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, declare the affected emergency Diesel Generator(s) inoperable and comply with the ACTION statements of Specification 3.8.1.1, however one channel may be bypassed for up to 2 hours for surveillance testing ~~per Specification 4.3.2.1~~. DC 3.3-001 ~~02-48-LS28~~ 01-43-A Q 3.3j 02-11-A DC 3.3E0

ACTION 16 - With the number of OPERABLE Channels one less than the ~~Total Number of~~ Required Channels, declare the affected Emergency Diesel Generator(s) inoperable and comply with the ACTION statements of Specification 3.8.1.1; however, one channel may be bypassed for up to 2 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-43-A 02-11-A 01-66-LS95 Q 3.3j

ACTION 17 - With ~~the number of OPERABLE channels one less than the Total Number of Channels~~ one containment pressure channel inoperable, operation may proceed provided the inoperable channel is placed in the bypassed condition ~~and the Minimum Channels OPERABLE requirement is met~~ within 6 hours, or be in MODE 3 in 12 hours and in MODE 5 in 42 hours. 01-43-A 02-15-M 01-04-LG

Note, one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-66-LS95 Q 3.3j

ACTION 17.1 (new) - With one containment pressure channel inoperable, operation may proceed provided the inoperable channel is placed in the bypassed condition within 6 hours, or be in MODE 3 in 12 hours and in MODE 4 in 18 hours. Note, one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 02-15-M Q 3.3j

ACTION 18 - With less than the ~~Minimum~~ Required Channels OPERABLE ~~requirement~~, comply with ACTION 37, and operation may continue beyond the 4 hour period provided the containment purge supply and exhaust valves ~~(RCV 11, 12, FCV 660, 661, 662, 663, 664)~~ are maintained closed. 01-04-LG 02-05-M 02-39-LG 03-14-LS29

ACTION 19 - With ~~the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement~~ one channel inoperable, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 01-04-LG

ACTION 20 - With ~~the number of OPERABLE channels one less than the Total Number of Channels~~ one channel inoperable, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 02-08-M 01-43-A

a. The inoperable channel is placed in the tripped condition within 6 hours, ~~and~~ or

b. Be in MODE 3 in 12 hours and in MODE 4 in 18 hours. NOTE: The ~~Minimum Channels OPERABLE requirement is met; however, the~~ inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-04-LG 01-66-LS45 Q 3.3j

~~ACTION 20.1 - With one channel inoperable, STARTUP and/or POWER OPERATION may proceed (new) provided the following conditions are satisfied:~~ 02-29-M DC ALL-002

~~a. The inoperable channel is placed in the bypassed condition within 6 hours, and the inoperable channel is returned to an OPERABLE status within 72 hours, or~~

~~b. Immediately enter 3.0.3.~~

~~NOTE: One additional channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1.~~

ACTION 20.2 - With one channel inoperable, STARTUP and/or POWER OPERATION may (new) proceed provided the following conditions are satisfied: 02-08-M

a. The inoperable channel is placed in the tripped condition within 6 hours, or

b. Be in MODE 3 in 12 hours and in MODE 5 in 42 hours. NOTE: The inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. Q 3.3j

ACTION 36 - With the number of OPERABLE channels one less than the Required Channels, within 6 hours place the inoperable channel in cut-out and restore the inoperable channel to OPERABLE status within ~~72~~ 48 hours; or be in at least HOT STANDBY within the next 6 hours and be in COLD SHUTDOWN within the next 30 hours. DC ALL-002 DC 3.3-Ed

Q 3.3-29

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

DC 3.3-60

02-01-A

02-19-LG

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. Safety Injection ~~(Reactor Trip, Feedwater Isolation, Start Diesel Generators, Containment Fan Cooler Units, and Component Cooling Water)~~		
a. Manual Initiation	N.A.	N.A
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A
c. Containment Pressure-High	≤ 3 psig	≤ ~~3.3~~ 3.12 psig
d. Pressurizer Pressure-Low	≥ 1850 psig	≥ ~~1844.4~~ 1847.5 psig
e. DELETED		
f. Steam Line Pressure-Low	≥ 600 psig (Note 1)	≥ ~~594.6~~ 597.6 psig (Note 1)

DC AU-005

DC 3.3-Ed

02-[illegible]-A

DC ALL-002

TABLE [illegible] (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

Word should be Coincidence

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES	
2. Containment Spray ~~(Containment with SI Signal)~~			02-28-LG
a. Manual Initiation	N.A.	N.A	
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A	
c. Containment Pressure-High-High	≤ 22 psig	≤ ~~22.3~~ 22.12 psig	DC ALL-005
3. Containment Isolation			
a. Phase "A" Isolation			
1) Manual	N.A.	N.A	
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A	
3) Safety Injection	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.		
b. Phase "B" Isolation			
1) Manual	N.A.	N.A	
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A	
3) Containment Pressure-High-High	≤ 22 psig	≤ ~~22.3~~ 22.12 psig	DC ALL-005

TABLE [illegible] (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

02-01-A
DC 3.3-E2

02-05-M

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
3. Containment Isolation (Continued)		
c. Containment Ventilation Isolation		
1) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.
2) Deleted		
3) Safety Injection	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.	
4) Containment Ventilation Exhaust Radiation-High ~~(RM 44A and 44B)~~	Per the ODCP	
4. Steam Line Isolation		
a. Manual	N.A.	N.A.
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.
c. Containment Pressure-High-High	≤ 22 psig	≤ ~~22.3~~ 22.12 psig
d. Steam Line Pressure-Low	≥ 600 psig (Note 1)	≥ ~~594.6~~ 597.6 psig (Note 1)

2-06-LG
Q 3.3-79

DC ALL-005

DC ALL-005

TABLE [illegible] (Continued)

02-01-A

DC 3.3-E0

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
e. Negative Steam Line Pressure Rate - High	≤ 100 psi (Note 3)	≤ ~~105.4~~ 102.4 psi (Note 3) DC ALL-005
5. Turbine Trip and Feedwater Isolation		
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A. DC ALL-005
b. Steam Generator Water level-High-High	≤ 75% of narrow range instrument span each steam generator.	≤ ~~75.5~~ 75.2% of narrow range instrument span each steam generator.
6. Auxiliary Feedwater		
a. Manual	N.A.	N.A.
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A. DC ALL-005
c. Steam Generator Water Level-Low-Low	≥ 7.2% of narrow range instrument span each steam generator.	≥ ~~6.8~~ 7.0% of narrow range instrument span each steam generator.
Coincident with:		DC ALL-005
1) RCS Loop ΔT Equivalent to Power ≤ 50% RTP	RCS Loop ΔT variable input ≤ 50% RTP	RCS Loop ΔT variable input ≤ ~~51.6~~ 50.7% RTP
With a time delay (TD)	≤ TD (Note 2)	≤ (1.01)TD (Note 2)
Or		
2) RCS Loop ΔT Equivalent to Power >50% RTP	RCS Loop ΔT variable input > 50% RTP	RCS Loop ΔT variable input > ~~51.6~~ 50.7% RTP DC ALL-005
With no time delay	TD = 0	TD = 0
d. Undervoltage - RCP	≥ 8050 volts	≥ ~~7730~~ 7877 volts DC ALL-005
e. Safety Injection		See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.

02-01-A

DC 3.3-EA

TABLE [illegible] (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

02-11-A

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
7. Loss of Power (4.16 kV Emergency Bus Undervoltage)		
a. First Level		DC ALL-002
1) Diesel Start	≤ 0.8 second time delay and ≥ 2583 volts with a ≤ 10 second time delay One relay	≥ 0 volts with a ≥ 0 volts with a ≤ 0.8 second time delay and ≥ 2583 volts with ≤ 10 second time delay One relay
2) Initiation of Load Shed	≥ 0 volts with a ≤ 4 second time delay and ≥ 2583 volts with a ≤ 25 second time delay with one relay ≥ 2870 volts, instantaneous	≥ 0 volts with a ≤ 4 second time delay and ≥ 2583 volts with a ≤ 25 second time delay with one relay ≥ 2870 volts, instantaneous
b. Second Level		DC ALL-002
1) Diesel Start	≤ 10 second time delay	≥ 3785 volts with a ≥ 3785 volts with a ≤ 10 second time delay
2) Initiation of Load Shed	≥ 3785 volts with a ≤ 20 second time delay	≥ 3785 volts with a ≤ 20 second time delay
8. Engineered Safety Features Actuation System Interlocks		
a. Pressurizer Pressure, P-11	≤ 1915 psig	≤ ~~1920.6~~ 1917.5 psig DC ALL-005
b. DELETED		
c. Reactor Trip, P-4	N.A.	N.A.
9. Residual Heat Removal pump trip on ~~low~~ RWST level - low	≥ ~~33%~~ ~~level~~ 32.56	≤ ~~32.9%~~ ~~level~~ 33.68 and ≥ 31.44% DC ALL-002 02-29-M

NOTE 1: Time constants utilized in the lead-lag ~~controller~~ compensator for Steam Pressure - Low are τ_1 = 50 seconds and τ_2 = 5 seconds.

NOTE 2: Steam Generator Water Level Low-Low Trip Time Delay DC ALL-005

$$TD = B1(P)^3 + B2(P)^2 + B3(P) + B4$$

Where: P = RCS Loop ΔT Equivalent to Power (%RTP), P ≤ 50% RTP

TD = Time delay for Steam Generator Water Level Low-Low (in seconds)

B1 = -0.007128
B2 = +0.8099
B3 = -31.40
B4 = +464.1

NOTE 3: Time constants utilized in the rate-lag ~~controller~~ compensator for Negative Steam Line Pressure Rate-High are τ_3 = 50 seconds and τ_4 = 50 seconds. DC ALL-005

TABLE (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

SURVEILLANCE REQUIREMENTS

DC ALL-002

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR ~~WHICH SURVEILLANCE IS REQUIRED~~	
4. Steam Line Isolation				DC ALL-001					Q 1-23
a. Manual	N.A.	N.A.	N.A.	R 24 (9)	N.A.	N.A.	N.A.	~~1, 2, 3~~	DC ALL-005
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3~~	DC ALL-002
c. Containment Pressure-High-High	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2,~~ 3	01-23-A DC ALL-005
d. Steam Line Pressure-Low	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2,~~ 3	01-23-A
e. Negative Steam Line Pressure Rate-High	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~3~~(3) Remove strikeout	01-23-A DC 3.3-Ed
5. Turbine Trip and Feedwater Isolation									DC ALL-005
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2~~	DC ALL-005
b. Steam Generator Water Level-High-High	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2~~	01-23-A
6. Auxiliary Feedwater									Q 1-23
a. Manual	N.A.	N.A.	N.A.	R(9)	N.A.	N.A.	N.A.	~~1, 2, 3~~	DC ALL-005
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3~~	Remove strike out DC 3.3-Ed
c. Steam Generator Water Level-Low-Low 1) Steam Generator Water Level-Low-Low	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2~~ 3(5)	01-23-A DC ALL-002
2) RCS Loop ΔT Equivalent to Power	N.A.	R(6) 24	Q	N.A	N.A	N.A	N.A	~~1, 2~~	01-23-A DC ALL-005

E 3.3-6

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

INSTRUMENT	~~MINIMUM~~REQUIRED CHANNELS ~~OPERABLE~~	APPLICABLE MODES	ALARM/TRIP SETPOINT	ACTION
1. Fuel Handling Building (New) Manual	2	**	NA	32**
a. Storage Area				
1) Spent Fuel Pool	1	***	≤ 75 mR/hr	30 & 32* ~~(a)~~
2) New Fuel Storage	1	***	≤ 15 mR/hr	30 & 32* ~~(a)~~
b. Gaseous Activity Fuel Handling Building Ventilation Mode Change ~~(b)~~	~~1~~2	***	Per the ODCP	32**
2. Control Room Ventilation Mode Change	2***			
a. Manual initiation	2	All, and during movement of irradiated fuel assemblies	NA	34, 36
b. Automatic Actuation ~~Logic and Actuation~~ Relays	2		NA	
c. Control Room Atmosphere Intake Radiation Monitors	~~2~~ Strikeout		≤ 2 mR/hr	
3. Containment				
a. Gaseous Activity				
1) Deleted				
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31
3) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	1	6, during CORE ALTERATIONS, and during movement of irradiated fuel assemblies in containment	Per the ODCP	33, 37
b. Particulate Activity				
1) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	1	6 during movement of irradiated fuel assemblies in containment	Per the ODCP	33, 37
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31

~~*With fuel in the spent fuel pool or new fuel storage vault.~~

**~~With irradiated fuel in the spent fuel pool.~~ During movement of irradiated fuel assemblies in the fuel handling building.

~~***One channel for each normal intake to the Control Room Ventilation System (common to both units).~~

~~(a)Action 32 is not applicable to the Fuel Storage Area Monitors following installation of RM-45A and 45B.~~

~~(b)The requirements for Fuel Handling Building Ventilation Mode Change are applicable following installation of RM-45A and 45B.~~

Q3.3-82
DC 3.3-Ed
Q3-08
Q 2.05(3.3)
Q3.3-79
Q 2-05(3.a)
Q3.3-79

01-43-A
03-01-A
03-08-M
03-21-LS52
03-03-LG
03-07-LS16
03-07-LS16
03-21-LS52
03-01-A
03-04-M
03-08-M
03-15-M
Q 3-08
03-10-LG
03-01-A
03-22-LS20
Q 3.3-79
03-01-A
02-05-M
03-14-LS29
02-51-LG
02-05-M
03-14-LS29
02-51-LG
03-01-A
03-03-LG
03-07-LS16
03-10-LG
~~03-01-A~~
~~03-01-A~~
03-21-LS52
Q 3.3-82

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

	CHANNEL CHECK	CHANNEL CALIBRATION	ACTUATION LOGIC TEST	ADOT	CHANNEL FUNCTIONAL TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~	
									01-44-A
1. Fuel Handling Building									
(New) Manual	NA	NA	NA	R(c)	NA	NA	NA		03-01-A 03-08-M
a. Storage Area									
1) Spent Fuel Pool	S	R	NA	NA	Q	NA	NA	*	
2) New Fuel Storage	S	R	NA	NA	Q	NA	NA	*	
b. Gaseous Activity Fuel Handling Building Ventilation Mode Change ~~(a)~~	S	R	NA	NA	Q	NA	NA	*	03-21-LS2 Q 3-3-82
2. Control Room Ventilation Mode Change	S	R			Q			All	03-01-A
a. Manual Initiation	NA	NA	NA	R(c)	NA	NA	NA		03-08-M
b. Automatic Actuation Logic and Actuation Relays	NA	NA	~~M(b)~~	NA	NA	~~M(b)~~	R		Q 3-08
c. Control Room Atmosphere Air Intake Radiation Monitors	S	R	NA	NA	Q	NA	NA		DC 3.3-Ed
3. Containment									
a. Gaseous Activity									
1) Deleted									
2) RCS Leakage	S	R	NA	NA	Q	NA	NA	~~1, 2, 3, 4~~	DC ALL-005 03-01-A
3) Containment Ventilation Isolation	S	R 24	NA	NA	Q	NA	NA	6	
~~(RM-44A or 44B)~~	S	R			Q				02-51-LG
b. Particulate Activity									
1) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	S	R 24	NA Add Redline	NA	Q	NA	NA	6	Q 3.3-79 DC ALL-002 02-51-LG
2) RCS Leakage	S	R	NA	NA	Q	NA	NA	~~1, 2, 3, 4~~	03-01-A

~~* With fuel in the spent fuel pool or new fuel storage vault.~~ 03-21-LS2

~~(a) The requirements for Fuel Handling Building Ventilation Mode Change are applicable following installation of RM-45A and 45B.~~ Q 3.3-82 03-03-LG 03-01-A

(New) (b) Each train shall be tested at least once every ~~62~~ 31 days on a STAGGERED TEST BASIS. 03-08-M

(New) (c) Verification of setpoint is not required. 03-08-M

DC 3.3-Ed

All changes unless noted otherwise via Q 8-11

Q 1-AGEN
1-63-A

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.6 The accident monitoring instrumentation ~~channels~~ functions shown in Table 3.3-10 shall be OPERABLE. 08-01-A

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

for one or more Functions

a. With the number of OPERABLE accident monitoring instrumentation channels less than the Required Number of Channels, ~~but at least one accident monitoring channel OPERABLE~~ shown in Table 3.3-10, restore the inoperable channel(s) to OPERABLE status within ~~7~~ 30 days or ~~be in at least HOT SHUTDOWN within the next 12 hours.~~ prepare and submit a Special Report ~~to~~ ON the alternate method of monitoring the appropriate parameter(s), cause of the inoperability, and plans and schedule for restoring the channel to OPERABLE status. e 08-11-LS30 DC 3.3-Ed

one or more Functions with two required channels inoperable

b. With ~~the number of no OPERABLE accident monitoring instrumentation channels for one or more instrument functions~~ ~~except the containment recirculation sump level-narrow range, the main steam line radiation monitor, the containment area radiation monitor-high range, and the plant vent radiation monitor-high range less than the Minimum Channels OPERABLE requirements~~ of Table 3.3-10, except for the Containment Hydrogen Concentration Monitor, restore at least one ~~the~~ inoperable channel~~(s)~~ to OPERABLE status within ~~48 hours~~ 7 days or ~~be in at least HOT SHUTDOWN within the next 12 hours.~~ enter the Action Required references d in Table 3.3-10. 08-11-LS30 08-11-A DC 3.3-Ed

c. ~~With the number of OPERABLE channels for the containment recirculation sump level-narrow range less than the Minimum Channels OPERABLE requirement~~ As required by the Action Requirements of Table 3.3-10, ~~except for the Containment Hydrogen Concentration monitors, restore the inoperable channel to OPERABLE status within 30 days or~~ be in at least HOT STANDBY within 6 hours ~~or~~ and be in at least HOT SHUTDOWN within ~~the next~~ 12 hours. e 08-11-LS30 08-11-A DC 3.3-Ed

d. ~~With the number of OPERABLE channels for the main steam line radiation monitor, or the containment area radiation monitor-high range or the plant vent radiation monitor-high range less than the Minimum Channels OPERABLE requirements~~ As required by the Action Requirements of Table 3.3-10, ~~initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours and either restore the inoperable channel(s) to OPERABLE status within 7 days or~~ prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days that ~~provides actions taken, identifies the~~ outlines the preplanned alternate method of monitoring the appropriate parameter(s), cause of the inoperability and plans and schedule for restoring the channels to OPERABLE status. 08-11-LS30 08-04-LS17 08-11-A 08-11-M

e. The provisions of Specification 3.0.4 are not applicable.

(New) Separate Condition entry is allowed for each function. 01-01-A

SURVEILLANCE REQUIREMENTS

Q 8-11

A

08-11-~~LS30~~

07-09-LS43

DC ALL-005

DC 3.3-Ed

4.3.3.6 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK once per 31 days for each required instrument that is normally energized and CHANNEL CALIBRATION ~~at the frequencies shown in Table 4.3-7.~~ once ~~per 18 months~~ REFUELING INTERVAL

Q 8-11

TABLE 3.3-10

ACCIDENT MONITORING INSTRUMENTATION

	INSTRUMENT FUNCTION	REQUIRED NO. OF CHANNELS	ACTION REQUIREMENTS FROM ACTION b.	~~MINIMUM CHANNELS OPERABLE~~	08-01-A 08-03-A 08-11-LS30
1.	Containment Pressure (normal range)	2	c.	~~1~~	
(New)	Containment Pressure (wide range)	2	c.		08-11-~~LS30~~ A H
2.	Reactor Coolant Outlet Temperature - T_{hot} (Wide Range)	2 (1/loop in two loops)	c. c.	~~1/loop in one loop~~	
3.	Reactor Coolant Inlet Temperature - T_{cold} (Wide Range)	2 (1/loop in two loops)	c.	~~1/loop in one loop~~	
4.	Reactor Coolant Pressure - Wide Range	2	c.	~~1~~	
5.	Pressurizer Water Level	2	c.	~~1~~	
6.	Steam Line Pressure	2/steam generator	c.	~~1/steam generator~~	
7.	Steam Generator Water Level - Narrow Range	2/steam generator	c.	~~1/steam generator~~	
(NEW)	Steam Generator Water Level - Wide Range	1/steam generator	c.		08-11-~~LS30~~ A H
8.	Refueling Water Storage Tank Water Level	2	c.	~~1~~	
9.	Containment Reactor Cavity Sump Level-Wide Range	2	c.	~~1~~	
10.	Containment Recirculation Sump Level-Narrow Range	~~N.A~~ 2	c.	~~1~~	08-11-H
11.	Auxiliary Feedwater Flow Rate	1/steam generator	c.	~~1/steam generator~~	
~~12.~~	~~Reactor Coolant System Subcooling Margin Monitor~~	~~1~~		~~1~~	08-11-LS30
~~13.~~	~~PORV Position Indicator~~	~~2*/valve~~		~~1/valve**~~	08-11-LS30
~~14.~~	~~PORV Block Valve Position Indicator~~	~~1/valve~~		~~1/valve~~	08-11-LS30
~~15.~~	~~Safety Valve Position Indicator~~	~~2***/valve~~		~~1/valve~~	08-11-LS30
16.	In Core Thermocouples Quadrant 1	4/core quadrant (d) DC 3.3-Ed	c.	~~2/core quadrant~~	08-11-~~LS30~~
	In Core Thermocouples Quadrant 2 In Core Thermocouples Quadrant 3 In Core Thermocouples Quadrant 4	4/core quadrant 4/core quadrant 4/core quadrant	c. c. c.		08-11-A H
~~17.~~	~~Main Steam Line Radiation Monitor~~	~~N.A.~~		~~1/steam line~~	
18.	Containment Area Radiation Monitor-High Range	~~N.A.~~ 2	d.	~~1~~	08-11-~~LS30~~ A H
~~19.~~	~~Plant Vent Radiation Monitor-High Range~~	~~N.A.~~		~~1~~	08-11-LS30

20. Reactor Vessel Level Indication System	2	d. ~~1~~	08-11

~~*One direct, stem-mounted indicator per valve and one temperature element in the common discharge line from the PORVs.~~
~~**One common temperature element is equivalent to 1/valve for all PORVs.~~
~~***One acoustic monitor and one temperature element.~~

(new) Neutron Flux/Wide Range NIS	2 (c)	c. DC 3.3-Ed	08-11-~~LS30~~ H
(new) Containment Isolation Valve Position	1/valve (a)(b)	c.	08-11-~~LS30~~
(new) Containment Hydrogen Concentration	2	c.	08-11-~~LS30~~
(new) Condensate Storage Tank Level	2	c.	08-11-~~LS30~~

(new) (a) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated valve, closed manual valve, blind flange, or check valve with flow through the valve secured. H 08-11-~~LS30~~

(new) (b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel. 08-11-~~LS30~~ H

~~(new) (c) Neutron detectors are excluded from channel calibration.~~ ~~08-11-LS30~~

(new) (d) A channel consists of two Incore Thermocouples. 08-11-~~LS30~~ A

3/4 3-52a

DESCRIPTION OF CHANGES TO TS SECTION 3/4.3

This Enclosure contains a brief description/justification for each marked-up change to existing current plant Technical Specifications (CTS). The changes are keyed to those identified in Enclosure 2 (mark-up of the CTS). The referenced No Significant Hazards Considerations (NSHC) are contained in Enclosure 4. All proposed technical changes to the CTS are discussed below; however, some administrative changes (i.e., format, presentation, and editorial changes made to conform to the Improved Technical Specifications (ITS)) may not be discussed. For Enclosures 3A, 3B, 4, 6A, and 6B, text in brackets "[ ]" indicates the information is specific and is not common to all the Joint Licensing Subcommittee (JLS) Plants. Empty brackets indicate that other JLS plants may have plant specific information in that location.

CHANGE NUMBER	NSHC	DESCRIPTION	
01-01	A	A Note, "Separate Condition entry is allowed for each Function," is added to the ACTIONS for the Reactor Trip System, ESFAS, ~~[Remote Shutdown also applies to each required ASP control]~~, Radiation Monitoring (except RCS leakage since it has seperate ACTIONS specified for each function or combination of functions) and Accident Monitoring Instrumentation. This change clarifies those situations where the current TS ACTION Statements are not uniquely associated with a particular Function or where the required channels are specified on a per steam line, per loop, per SG, per bus, etc., basis. This change is consistent with current operating practices and NUREG-1431. [ ] INSERT 1-01-A	DC ALL-002 DC 3.3-E1 Q 1-01
01-02	LG	The CTS require that response time testing be performed on each reactor trip and ESFAS function every ~~48~~ [24] months and that alternate trains be tested in successive tests. The CTS description of the channel testing protocol matches the improved TS definition of STAGGERED TEST BASIS. However, several trip functions do not require response time testing, as indicated by N.A. in the tables of response time limits [(presently located in Tables 3.3-2 and 3.3-5 of the CTS, which are being to the FSAR per CN 01-35-LG)]. The improved TS specify that ~~required~~ response time testing be performed on a STAGGERED TEST BASIS and do not impose any requirements as to which train should be tested. Therefore, ~~the word "requirement" is added to the CTS and~~ the requirement to ensure that each train is tested every ~~36~~ [48] months is moved to the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10.	DC ALL-001 Q 3.3-55 Q 3.3-55 DC-ALL-001
01-03	LS1	In CTS SR 4.3.1.2 and 4.3.2.2, the active verb is changed from "demonstrated" to "verified." This allows Reactor Trip System and ESFAS sensor response time verifications to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements." This change is consistent with Traveler TSTF-111 Rev. 0, which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing.	Q 1-03

CHANGE NUMBER	NSHC	DESCRIPTION
01-13	LS6	[ACTION Statement [10] is revised to note that the 2 hour [train and] reactor trip breaker bypass allowance for [train or] breaker surveillance testing can also be used for maintenance. This change does not impact the conclusions of WCAP-10271-P-A, Supplement 2, Rev. 1 since there is no change to the bypass time. This change is consistent with Traveler TSTF-168.] ACTION Statement [10] is [also] revised to require restoration of an inoperable RTB within 1 hour or the plant must be in HOT STANDBY within the next 6 hours, consistent with NUREG-1431. This is less restrictive since an additional hour is provided for the transition to MODE 3.
01-14	A	In the ISTS Table 3.3.1-1, Function 20, the Reactor Trip Breaker (RTB) Undervoltage and Shunt Trip Mechanisms are separate from the RTB Functional Unit. The CTS have been revised to reflect these requirements. DC 3.3-Ed New [footnote (~~b~~ k) has] been added to the RTB Functional Unit to note that the same OPERABILITY requirements and ACTIONS apply to a bypass breaker if it is racked in and closed for bypassing an RTB. The bypass breakers were already handled in this fashion. ACTION [12] in CTS Table 3.3-1 has been revised accordingly. INSERT 1-14-A Q 1-14
01-15	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-16	LS40	The requirement to verify the setpoint during the quarterly TADOT for RCP Underfrequency [and RCP Undervoltage] is deleted, consistent with NUREG-1431.
01-17	A	Consistent with NUREG-1431, LCO 3.3.1 Required ACTION ~~D~~ C Note, CTS Table 3.3-1 ACTION Statement 2 ~~and new ACTION Statement 2.1 have~~ has been modified by a Note that allows the bypass to be used for surveillance testing or setpoint adjustment. Setpoint adjustment can be performed at power and may be required by other Technical Specifications. The reason for placing the channel in bypass does not affect the impact of having the channel in bypass. Q 3.3-40

CHANGE NUMBER	NSHC	DESCRIPTION
01-21	A	The monthly and quarterly channel calibrations associated with Notes (3), (4), and (6) of CTS Table 4.3-1 have been moved from the Power Range Neutron Flux-High Setpoint Function to the Overtemperature [ΔT] Function. This change clarifies the relationship of these surveillances to the f_1 (ΔI) penalty portion of the Overtemperature [ΔT] Function. The primary purpose of these surveillances is to verify correct f_1 (ΔI) input to Overtemperature [ΔT]. Although these surveillances affect all power range neutron flux channels, and appropriate action must be taken for any affected power range neutron flux channel, this change groups the surveillances with the most appropriate reactor trip function for OPERABILITY concerns. Q 1-25 [ ] The applicable portions of CTS Table 4.3-1 Notes (3) and (6) are incorporated directly into ITS SR 3.3.1.3 and SR 3.3.1.6, as discussed in CN 1-25-~~A~~ M. Note (4) has been deleted from the daily, monthly, and quarterly surveillances associated with Notes (2), (3), and (6) of CTS Table 4.3-1 since these surveillances are not CHANNEL CALIBRATIONS, rather they are comparisons and adjustments as needed. These changes are consistent with NUREG-1431.
01-22	M	Quarterly COTs have been added to CTS Table 4.3-1 for the Power Range Neutron Flux-Low and Intermediate Range Neutron Flux trip functions in the event extended operation within their APPLICABILITY (i.e., MODE 1 below P-10 and MODE 2) takes place. The CTS only require a COT prior to startup for these functions. New Note [(19)] has been added to require that the new quarterly COT be performed within 12 hours after reducing power below P-10 for the power range and intermediate range instrumentation (P-10 is the dividing point marking the APPLICABILITY for these trip functions), if not performed within the previous 92 days. [In addition,new Note (20) has been added] such that the P-6 and P-10 interlocks are verified to be in their required state during all COTs on the Power Range Neutron Flux-Low and Intermediate Range Neutron Flux trip functions. These changes are consistent with NUREG-1431 and traveler~~s~~ ~~WOG-106~~ TSTF-242. Q 3.3-49
01-23	A	This change adds new Note [(22)] to CTS Table 4.3-1 and new Note [(~~6~~)] to CTS Table 4.3-2 that explicitly require the ~~18 month~~ calibrations to include verifications of affected time constants, consistent with NUREG-1431. DC ALL-002 DC 3.3-Ed

CHANGE NUMBER	NSHC	DESCRIPTION
02-07	LS11	[Note (a) is added to CTS Table 3.3-3 for the Steam Line Isolation Functional Units 4.a, 4.b, 4.c, 4.d, and 4.e to state that the LCO requirements are not applicable in MODES 2 and 3 when the MSIVs are closed and deactivated]. Note [(b)] is added to CTS Table [3.3-3] for the Feedwater Isolation and Turbine Trip Function [Functional Units 5.a, and 5.b] to state that the LCO requirements are not applicable when the [MFIVs, MFRVs or the associated bypass valves] are closed [and deactivated or isolated by a closed manual valve]. When these valves are closed [and deactivated or isolated by a closed manual valve], they are already performing their safety function. These changes are consistent with NUREG-1431. INSERT 2-07-LS11 Q2-LSGEO Q2-08
02-08	M	[This change revises ACTION 20 ~~and 35~~ in CTS Table 3.3-3 and adds new ACTION 20.2 and 35.2 which are applicable to Functional Units 1.c, 1.d, 1.ef, ~~4.c~~, 4.d, 4.e, 5.b, 6(c.1)a, and ~~6.d~~]. These ACTION Statements, written to reflect the APPLICABILITY of the affected channels and consistency with ITS 3.3.2 [Conditions D and I], are more restrictive, by one hour, than the current ACTION Statement[s] which invoke[ ] LCO 3.0.3 if the inoperable channel is not placed in trip within 6 hours. DC ALL-002 DC 3.3-Ed
02-09	LG	Separate ESFAS entries for the motor-driven and turbine-driven auxiliary feedwater pumps are no longer necessary, consistent with NUREG-1431. The only difference in the requirements (an SR 4.0.4 exception for response time testing of the turbine-driven auxiliary feedwater pump) has been addressed in the ITS by a Note in Surveillance Requirement 3.3.2.10. [The details of which actuation signal starts which pump is moved to the Bases for SI and RCP undervoltage].
02-10	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-11	A	The Functional Unit for Loss of Power [CTS 7.a, 7.b] is moved to improved TS 3.3.5.
02-12	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-13	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-14	M	This change modifies ACTION Statement [21] for permissive P-11 [ ] to provide specific shutdown requirements to exit APPLICABILITY in lieu of applying LCO 3.0.3. This change is more restrictive by one hour, consistent with NUREG-1431.

CHANGE NUMBER	NSHC	DESCRIPTION
03-04	M	This change adds the APPLICABILITY for movement of irradiated fuel assemblies consistent with NUREG-1431. The CTS APPLICABILITY of "All" MODES does not cover the movement of irradiated fuel assemblies when the core is offloaded.
03-05	LS14	ACTION Statement [34] for the [Control Room Air Intake] [ ] radiation monitors have extended Completion Times, from [1 hour] to 7 days for one required channel inoperable, consistent with NUREG-1431. INSERT 3-05-LS14 Q 3-05
03-06	A	ACTION [c] of CTS LCO 3.3.3.1 is revised to state the Specification 3.0.3 exception is [retained only for the Fuel Handling Building Radioactivity Instrumentation]. The LCO 3.0.3 exception is not needed in ITS 3.3.7 or ITS 3.4.15 since Required Actions are provided with the appropriate remedial measures for all combinations of failures, including shutdown actions, or reference is made to the associated plant system TS for the systems affected by the inoperability of the radiation monitors. [ ]. ITS 3.3.6 DC 3.3-Ed DC 3.3-ED DC 3.3-Ed DC ALL-002
03-07	LS16	The APPLICABILITY for the Fuel [Handling] ~~Building Exhaust~~ radiation monitors has been revised to read "during movement of irradiated fuel assemblies in the fuel [handling] building." [The REQUIRED CHANNELS for Instrument 1.b. has been revised from one as specifed by the CTS to two as specifed by NUREG-1431 to provide protection against a single failure that could prevent the transfer of the FHBVS to the iodine removal mode.]
03-08	M	The CTS have been revised to include manual initiation of the fuel handling building and manual and automatic initiation of the control room pressurization system. These systems are not classified as ESF functions in the CTS even though CTS surveillance 4.7.5.1e.2) requires that the CRVS automatically switches to the pressurization mode on a Phase "A" signal. The FHBVS is not an ESF function since its only function is to mitigate a fuel handling accident. This revision incorporates the automatic Actuation ~~Logic, Master Relay, and Slave~~ Relay Tests included in ~~NUREG-1431 for the CRVS~~ and the TADOT for the manual actuation of both systems. The automatic Actuation tests are conducted as part of the CTS, and the Logic and Master Relay CRVS relay tests are currently performed even though not specifically called out in the CTS. via the Slave Relay Tests of the ESFAS testing of Function 1.b. and 3.a.(2) DC ALL-003 Q 3.3-08
03-09	LS-24	Not applicable to DCPP. See Conversion ~~Comparison Table~~ (Enclosure 3B).
03-10	LG	The DCPP descriptive information related to the Required Channels per normal intake is moved to the Bases.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-01 A	A Note, "Separate Condition entry is allowed for each Function," is added to the ACTIONS for the Reactor Trip System, ESFAS, [Radiation Monitoring] and Accident Monitoring Instrumentation. This change clarifies those situations where the CTS ACTION Statements are not uniquely associated with a particular Function or where the required channels are specified on a per steam line, per loop, per SG, per bus, etc., basis.	Yes	Yes	Yes, see also CN 2-46-LS-42.	Yes, see also CN 2-46-LS-42. DC 3.3-Ed
01-02 LG	The improved TS specify that required response time testing be performed on a STAGGERED TEST BASIS and do not impose any requirements as to which train should be tested. The requirement to ensure that each train is tested every 36 months is moved to the Bases for SR 3.3.1.16 and SR ~~3.3.2.10.~~ [48]	Yes	Yes	Yes	Yes DC ALL-001
01-03 LS1	Changing "demonstrated" to "verified" allows Reactor Trip System and ESFAS sensor response time verifications to be performed per WCAP-13632-P-A Revision 2. This change is consistent with traveler TSTF-111.	Yes	No, see CN 1-58-A.	Yes	Yes
01-04 LG	In CTS Tables [3.3-1 and 3.3-3], the ["Channels to Trip" and] "Minimum Channels OPERABLE" columns are deleted. [ ] The ACTION Statements have been revised accordingly.	Yes	Yes	Yes	Yes
01-05 A	The LCO 3.0.4 exception [footnote #] in CTS Table 3.3-1 is deleted entirely. ACTION Statement [8] in CTS Table 3.3-1 permits continued operation for an unlimited period of time. Therefore, no exception to ITS LCO 3.0.4 is needed for this ACTION Statement. []	Yes	No, not in CTS.	Yes	Yes

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-23 A	This change adds notes to the RTS and ESFAS SR Tables 4.3-1 and 4.3-2 that explicitly require the ~~48-month~~ calibrations to include verifications of affected time constants where applicable.	Yes	Yes	Yes	Yes DC 3.3-E1
01-24 LS9	The COTs for the Power Range Neutron Flux - Low setpoint, the Intermediate Range Neutron Flux and the Source Range Neutron Flux trip functions will no longer be required if performed within the previous 92 days (extended from 31 days). Note [1a] is added for use with the turbine trip functions, for which no such change was provided.	Yes	Yes	Yes	Yes
01-25 A e M	NUREG-1431 Rev. 1 incorporates the CTS 4.0.4 exception from Table 4.3-1 Notes (2), (3), and (6) into the ITS SR 3.3.1.2, 3.3.1.3, and 3.3.1.6 surveillance frequencies.	Yes	Yes	Yes	Yes Q 1-25
01-26 LG	This change moves detail concerning NIS detector operation and testing to the BASES for ITS SR 3.3.1.11.	Yes	Yes	Yes	Yes
01-27 LS10	Surveillances on the Source Range Neutron Flux trip function are reorganized to reflect plant status in accordance with NUREG-1431. New Note [(19)] requires that the quarterly COT be performed within 4 hours after reducing power below the respective source range instrumentation Applicabilities, if not performed within the previous [92] days. Since the COT is valid for [92] days, there is no need to repeat it if one has been performed within the prior [quarter]. Since the CTS has no Specification 4.0.4 exception, this 4 hour allowance is less restrictive.	Yes	Yes	Yes	Yes

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
02-04 LG	The requirements stipulated in ACTIONS a and b are moved to ITS Table 3.3.2-1, with explicit direction contained in the ITS ACTIONS Bases.	Yes	Yes	Yes	Yes
02-05 M	The Functional Unit for Containment [~~purge~~] Isolation, CTS 3.c, is moved to improved TS 3.3.6. Improved TS 3.3.6 adds requirements on the OPERABILITY of the containment [purge] radiation monitors and extends the Applicability to the [Manual Initiation and ~~BOP-ESFAS~~] actuation logic to include during movement of irradiated fuel assemblies within containment and [Core Alterations].	~~No, see CN 02-20-A.~~ YES	No, see CN 2-20-A.	Yes	Yes Q 2-05 (3.3)
02-06 LS33	Functional Unit 4.a.1 of curret TS Table 3.3-3 has been deleted.	No, retained in CTS.	~~No, see CN 2-25-A.~~ YES	~~No, see CN 2-25-A~~ YES	Yes Q 2-25
02-07 LS11	[Note (a) is added to CTS Table 3.3-3 for the Steam Line Isolation Function to state that the LCO requirements are not applicable in MODES 2 and 3 when the MSIVs are closed and deactivated]. Note [(b)] is added to CTS Table [3.3-3] for the Feedwater Isolation and Turbine Trip Function to state that the LCO requirements are not applicable when the [MFIVs, MFRVs and the associated bypass valves] are closed [and deactivated or isolated by a closed manual valve].	Yes	Yes	Yes	Yes
02-08 M	[This change revises ACTION 20 and 35 in CTS Table 3.3-3 and adds new ACTION 35.2 which are applicable to Units 1.c, 1.d, 1.f, 4.d, 4.e, 5.b, 6.c 2 a, ~~and 6.d~~]. These ACTION Statements, written to ~~reflect the~~ (1) Applicability of the affected channels, are more restrictive, by one hour, than the current ACTION Statement[s] which invoke[ ] LCO 3.0.3 if the inoperable channel is not placed in trip within 6 hours.	Yes	Yes	Yes	Yes DC 3.3-Ed DC ALL-002

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
02-15 M	Action Statement [17] has been expanded to specify additional actions and options if an inoperable channel is not placed in bypass within the specified time period. In the ITS, the requirements to place the inoperable channel in bypass within a time constraint and the reduction, by 1 hour, in the time to exit Applicability are more restrictive than the CTS. [As a result of the revision to ACTION 17, a new ACTION 17.1 was created for Functional Unit 4.c that requires entry to MODE 4 if the ACTIONS are not met.]	Yes	Yes	Yes	Yes
02-16 LS12	ACTION Statement [26] for an inoperable channel in the CTS Table [3.3-3] Functional Unit [9.a-9.c] is modified to be consistent with NUREG-1431 Rev. 1 (7 day AOT in ITS 3.3.7).	No, not in CTS.	Yes	Yes	Yes
02-17 LS13	The monthly TADOT has been extended to quarterly.	No, not in CTS.	Yes	No, retained CTS.	No, retained CTS.
02-18 LS31	CTS Table 3.3-3 ACTION Statement 19 is revised to reflect ITS 3.3.5 for the Loss of Power Functional Unit.	No, see CN 2-48-LS28.	No, see CN 2-32-LS-23.	Yes	Yes
02-19 LG	This change moves functions provided by a Safety Injection signal and the AFW pump start entries [ ] for Functional Units [6.d, and 6.e] in CTS Table [3.3-3] ~~to the~~ and 3.3-4 ITS 3.3.2 Bases.	Yes	Yes	Yes	Yes DC 3.3-Ed
02-20 A	The Functional Unit for Containment Vent Isolation is moved to ITS 3.3.6. There are no technical differences introduced by this process[ ].	~~Yes~~ No, see CN 2-05-M.	Yes	No, see CN 2-05-M.	No, see CN 2-05-M IQ 2-05(3.3)
02-21 LS22	In CPSES CTS Table 3.3-2, Action 17.1 replaces Action 17 for RWST Level Low-Low and Action 17.2 replaces Action 17 for SG Water Level - High High.	No	Yes	No	No

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
07-01 A	The requirements of CTS Table [3.3-9] are redefined on a functional basis with Required Functions ~~Channels~~. The point at which ACTION Statements are entered is unchanged. []	~~No, already in CTS.~~ Yes	Yes	Yes	Yes Q 7-01
07-02 M	The shutdown requirement for inoperable Remote Shutdown controls is changed from HOT STANDBY to HOT SHUTDOWN.	No, already in CTS.	Yes	No, already in CTS.	No, already in CTS.
07-03	Not used.	N/A	N/A	N/A	N/A
07-04 LS15	This change extends the Remote Shutdown AOT from 7 days to 30 days.	No, already in CTS.	Yes	Yes	Yes
07-05 A	Consistent with the ITS, the modifications would clarify the requirement to be in HOT SHUTDOWN in 12 hours by replacing the requirement with a new requirement to be in HOT STANDBY in 6 hours and in HOT SHUTDOWN in the next 6 hours.	Yes	Yes	No, already in CTS.	No, already in CTS.
07-06 LG	The Readout Location ~~and Total No. of Channels columns~~ in CTS Table [3.3-9] have been moved to the Bases of improved TS 3.3.4. [Descriptive information related to the controls is also moved to the Bases.]	Yes	Yes	Yes	Yes DC 3.3-E2
07-07	Not used.	N/A	N/A	N/A	N/A
07-08 TR2	The CPSES requirement to submit a special report if the number of remote shutdown monitoring instruments is less than the required number would be deleted from the CTS. This requirement is covered by other regulatory requirements.	No	Yes	No	No

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

following

NSHC LS8
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMEN~~TS WITHIN~~ THE TECHNICAL SPECIFICATIONS

These   And 28   s ARE   DC 3.3-003

This change reflects a revision to ~~current~~ ACTION Statement [6]. If the requirements of current ACTION Statement [6] are not met, LCO 3.0.3 would be entered. ~~This~~ ACTION Statement ~~is~~ revised to state that if the ACTION requirements are not met, THERMAL POWER must be reduced to below the P-7 interlock setpoint within the next 6 hours. ~~Most of~~ the Functional Units that impose ACTION Statement [6], (:) Pressurizer Pressure - Low, Pressurizer Water Level - High, Reactor Coolant Flow - Low, Two Loops (above P-7 and below P-8), RCP Undervoltage, and RCP Underfrequency() are automatically blocked below P-7 and an Applicability Note has been added accordingly. The Reactor Coolant Flow - Low (Single Loop) reactor trip function does not have to be OPERABLE below the P-8 setpoint; however, the Required Action must take the plant below the P-7 setpoint, if an inoperable channel is not tripped within 6 hours, due to the shared components between this function and the Reactor Coolant Flow - Low (Two Loops) trip function.

Q2-LS GEN   DC ALL-002

which exits the Applicability of   These functions   Q2-LS GEN

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

and 16   DC 3.3-Ed

Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the ACTION Statement associated with an inoperable channel in CTS Table 3.3-1 Functional Units [9, 11, 12.a, 12.b, ~~14, and~~ 15] by keeping the end point of the shutdown action above the CTS requirement if an inoperable channel isn't placed in trip within 6 hours. The new ACTION Statement would reduce power to less than P-7 (10% RTP) within the next 6 hours in this situation as compared to entry into LCO 3.0.3 (power ≤ 5% RTP) in the current TS. The proposed change in the ACTION Statement will not affect any of the analysis assumptions for any of the accidents previously evaluated. An LCO 3.0.3 shutdown to ≤ 5% RTP is not required to meet the initial conditions of any accident analysis crediting these trip functions. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS17
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

This change deletes the requirement ~~to~~ a initiate the preplanned alternate method of monitoring containment radiation [~~or reactor vessel water level~~] within 72 hours when two channels are inoperable. This makes ACTION [c] of current TS LCO [3.3.3.6] the same as ACTION [b], except that a plant shutdown is not needed if the 7 day AOT is not met for these functions with preplanned alternates. Containment radiation indication is used to assess whether the fuel cladding and reactor coolant pressure boundaries have been breached such that a significant portion of the core activity inventory is available for release to the environs. The preplanned alternate for this variable uses the PASS system which is administratively controlled outside the TS. ~~[The preplanned alternates for RVLIS include a combination of the core exit thermocouples, RCS wide range hot and cold leg temperature, wide range RCS pressure, pressurizer level, and RCS subcooling monitor indications to verify adequate core cooling.]~~ These variables are already continuously monitored under the LCO and do not require an action directing that they be initiated. INSERT LS17 Q 8-04 a DC 3.3-Ed

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change involves a relaxation regarding the deletion of the 72 hour initiation of the preplanned alternate method of monitoring containment radiation [or reactor vessel water level] if two channels are inoperable. The proposed change in the ACTION Statement will not affect any of the analysis assumptions for any of the accidents previously evaluated. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.1.9	----------NOTE---------- Verification of setpoint is not required. -------------------- Perform TADOT.	92 days B
SR 3.3.1.10	----------NOTE---------- This Surveillance shall include verification that the time constants are adjusted to the prescribed values. -------------------- Perform CHANNEL CALIBRATION.	DC ALL-005 ~~18~~ 24 months B
SR 3.3.1.11	----------NOTES---------- 1. Neutron detectors are excluded from CHANNEL CALIBRATION. 2. This Surveillance shall include verification that the time constants are adjusted to the prescribed values. 3. Power and Intermediate Range detector plateau voltage verification is not required to be performed prior to entry in to MODE 2 or 1. -------------------- Perform CHANNEL CALIBRATION.	3.3-125 3.3-07 DC ALL-005 ~~18~~ 24 months B
SR 3.3.1.12	~~NOTE~~ ~~This Surveillance shall include verification of Reactor Coolant System resistance temperature detector bypass loop flow rate.~~ Perform CHANNEL CALIBRATION.	DC 3.3-Ed 3.3-101 DC ALL-005 ~~18~~ 24 months B
SR 3.3.1.13	Perform COT.	~~18~~ 24 months DC ALL-005

Table 3.3.1-1 (page 3 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT~~(a)~~ ED
8. Pressurizer Pressure						B-PS DC ALL-005
a. Low	1(g)	4	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[1886]~~ ~~1944.4~~ 1947.5 psig	≥ ~~[1900]~~ 1950 psig ≤ 2385 psig B
b. High	1,2	4	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≤ ~~[2396]~~ ~~2390.0~~ 2387.5 psig	3.3-55 Q 3.3-55 DC ALL-005
9. Pressurizer Water Level – High	1(g)	3	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≤ ~~[93.8]~~ ~~92.5~~ 90.2 %	≤ ~~92~~ 90 % B- DC ALL-005
10. Reactor Coolant Flow – Low	1(g)	3 per loop	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~89.7~~ 85.8 %(l) of MMF/loop	≥ ~~[90]%(l)~~ ≥ [90]% Q 3.5-55 B- 3.3-09 3.3-42 Q 3.3 d GEN
~~a. Single Loop~~	~~1(h)~~	~~3 per loop~~	~~M~~	~~SR 3.3.1.1~~ ~~SR 3.3.1.7~~ ~~SR 3.3.1.10~~ ~~SR 3.3.1.16~~	~~≥ [89.2] %~~	
~~b. Two Loops~~	~~1(i)~~	~~3 per loop~~	M	~~SR 3.3.1.1~~ ~~SR 3.3.1.7~~ ~~SR 3.3.1.10~~ ~~SR 3.3.1.16~~	~~≥ [89.2] %~~	~~≥ [90]%~~

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(g) Above the P-7 (Low Power Reactor Trips Block) interlock.

~~(h) Above the P-8 (Power Range Neutron Flux) interlock.~~ 3.3-42

~~(i) Above the P-7 (Low Power Reactor Trips Block) interlock and below the P-8 (Power Range Neutron Flux) interlock.~~ 3.3-42

(l) Minimum measured flow (MMF) is 89,800 gpm per loop for Unit 1 and 90,625 gpm per loop for Unit 2. DC 3-3-Ed 3.3-09

PS

DC 3.3-Ed

3.3 INSTRUMENTATION

3.3.6 Containment ~~Purge and~~ Ventilation Exhaust Isolation Instrumentation

LCO 3.3.6 The Containment ~~Purge and~~ Ventilation Exhaust Isolation instrumentation for each Function in Table 3.3.6-1 shall be OPERABLE.

APPLICABILITY: ~~MODES 1, 2, 3, and 4,~~ According to Table 3.3.6-1 3.3-79
~~During CORE ALTERATIONS,~~
~~During movement of irradiated fuel assemblies within containment.~~

ACTIONS

-----------------------------NOTE-----------------------------
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. -------NOTE------- Only applicable in MODES 1, 2, 3, or 4. ------------------- One radiation monitoring channel inoperable.	A.1 Restore the affected channel to OPERABLE status.	3.3-32 4 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. ----------NOTE----------- Only applicable in MODE 1, 2, 3, or 4. ------------------------ One or more Functions with one or more manual or automatic actuation trains inoperable. OR ~~Two or more~~ Both radiation monitoring channels inoperable. OR Required Action and associated Completion Time of Condition A not met.	B.1 Enter applicable Conditions and Required Actions of LCO 3.6.3, "Containment Isolation Valves," for containment ~~purge and~~ Ventilation exhaust isolation valves made inoperable by isolation instrumentation.	Immediately PS DC 3.3-Ed 3.3-32

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ----------NOTE---------- Only applicable during MODE 6 ~~CORE ALTERATIONS~~ or movement of irradiated fuel assemblies within containment. ----------------------- One or more Functions with one or more manual or automatic actuation trains inoperable. OR ~~Two or more~~ Both radiation monitoring channels inoperable. OR Required Action and associated Completion Time for Condition A not met.	C.1 Place and maintain containment Ventilation ~~purge and~~ exhaust valves in closed position. OR C.2 Enter applicable Conditions and Required Actions of LCO 3.9.4, "Containment Penetrations," for containment ~~purge and~~ Ventilation exhaust isolation valves made inoperable by isolation instrumentation.	PS DC 3.3-Ed Immediately 3.3-79 Q 3.3-79 Immediately PS DC 3.3-Ed 3.3-32

SURVEILLANCE REQUIREMENTS

-----NOTE-----
Refer to Table 3.3.6-1 to determine which SRs, other than ESFAS CVI RESPONSE TIME verification, apply for each Containment Ventilation ~~Purge and~~ Exhaust Isolation Function. PS DC 3.3-Ed

ESFAS CVI RESPONSE TIME verification is specified in SR 3.3.6.8. Q 3.3-55

SURVEILLANCE		FREQUENCY
SR 3.3.6.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.6.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.6.3	Perform MASTER RELAY TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.6.4	Perform ~~COT~~ CFT.	3.3-75 92 days
SR 3.3.6.5	Perform SLAVE RELAY TEST.	~~[92] days~~ ~~18~~ 24 months B-PS DC ALL-005
SR 3.3.6.6	NOT USED ~~NOTE~~ ~~Verification of setpoint is not required.~~ ~~Perform TADOT.~~	3.3-76 ~~[18] months~~
SR 3.3.6.7	Perform CHANNEL CALIBRATION.	24 ~~18~~ months DC-ALL-005 DC 3.3-Ed B PS
SR 3.3.6.8	Verify ESF Containment Ventilation ~~Purge and~~ Exhaust Isolation RESPONSE TIME is ~~response time is~~ within limits as specified in the FSAR update.	24 ~~18~~ months on a STAGGERED TEST BASIS DC ALL-005 3.3-31 3.3-55 Q 3.3-55

SURVEILLANCE REQUIREMENTS

other than ESFAS CVI RESPONSE TIME verification

--NOTE--
Refer to Table 3.3.6-1 to determine which SRs apply for each Containment Ventilation ~~Purge and~~ Exhaust Isolation Function. PS DC 3.3-Ed
& ESFAS CVI RESPONSE TIME verification is specified in SR 3.3.6.8. Q 3.3-55

SURVEILLANCE		FREQUENCY
SR 3.3.6.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.6.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.6.3	Perform MASTER RELAY TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.6.4	Perform ~~COT~~ CFT.	3.3-75 92 days
SR 3.3.6.5	Perform SLAVE RELAY TEST.	~~[92] days~~ 18 24 months B-PS DC ALL-005
SR 3.3.6.6	NOT USED ~~NOTE~~ ~~Verification of setpoint is not required.~~ ~~Perform TADOT.~~	3.3-76 ~~[18] months~~
SR 3.3.6.7	Perform CHANNEL CALIBRATION.	24 ~~18~~ months DC-ALL-005 DC 3.3-Ed B PS
SR 3.3.6.8	Verify ESF Containment Ventilation ~~Purge and~~ Exhaust Isolation RESPONSE TIME is ~~response time is~~ within limits as specified in the FSAR update.	24 ~~18~~ months on a STAGGERED TEST BASIS DC ALL-005 3.3-31 3.3-55 Q 3.3-55

Table 3.3.7-1 (page 1 of 1)
~~CREFS~~CRVS Actuation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT	3.3-79
1. Manual Initiation	1, 2, 3, 4, 5, 6, and (a)	2 trains	SR 3.3.7.6	NA	
2. Automatic Actuation Logic and Actuation Relays	1, 2, 3, 4, 5, 6, and (a)	2 trains	~~SR 3.3.7.3~~ ~~SR 3.3.7.4~~ SR 3.3.7.5	NA	Q 3.3-08 3.3-144 Q 3.3-79 DC 3.3-Ed
3. Control Room Radiation	~~1, 2, 3, 4, 5, 6, and (a)~~				
~~a. Control Room~~ Atmosphere Air Intakes	1, 2, 3, 4, 5, 6, and (a)	2	SR 3.3.7.1 SR 3.3.7.2 SR 3.3.7.7	≤ 2 mR/hr	3.3-102 B
~~b. Control Room Air Intakes~~		~~[2]~~	~~SR 3.3.7.1~~ ~~SR 3.3.7.2~~ ~~SR 3.3.7.7~~	~~≤ [2] mR/hr~~	3.3-102
4. Safety Injection	Refer to LCO 3.3.2. "ESFAS Instrumentation." Function 1. for all initiation functions and requirements.				

(a) During movement of irradiated fuel assemblies.

3.3-79

3.3-01

DC 3.3-Ed

3.3 INSTRUMENTATION

3.3.9 Boron Dilution Protection System (BDPS)
NOT USED

~~LCO 3.3.9 Two trains of the BDPS shall be OPERABLE.~~

~~APPLICABILITY: MODES [2,] 3, 4, and 5.~~

~~NOTE~~
~~The boron dilution flux doubling signal may be blocked in MODES 2 and 3 during reactor startup.~~

~~ACTIONS~~

~~CONDITION~~	~~REQUIRED ACTION~~	~~COMPLETION TIME~~
~~A. One train inoperable.~~	~~A.1 Restore train to OPERABLE status.~~	~~72 hours~~
~~B. Two trains inoperable.~~ ~~OR~~ ~~Required Action and associated Completion Time of Condition A not met.~~	~~B.1 Suspend operations involving positive reactivity additions.~~ ~~AND~~ ~~B.2.1 Restore one train to OPERABLE status.~~ ~~OR~~ ~~B.2.2.1 Close unborated water source isolation valves.~~ ~~AND~~	~~Immediately~~ ~~1 hour~~ ~~1 hour~~ ~~(continued)~~
~~B. (continued)~~	~~B.2.2.2 Perform SR 3.1.1.1.~~	~~1 hour~~ ~~AND~~ ~~Once per 12 hours thereafter~~

BASES

BACKGROUND Signal Process Control and Protection System (continued)

prevent the protection function actuation. These requirements are described in IEEE-279-1971 (Ref. 4). The actual number of channels required for each unit parameter is specified in Reference 1.

Two logic channels are required to ensure no single random failure of a logic channel will disable the RTS. The logic channels are designed such that testing required while the reactor is at power may be accomplished without causing trip. INSERT BASES (1) 2a Insert

Q3.3.6-1
DC 3.3-005
DC3.3-Ed

Trip Setpoints and Allowable Values

two sided tolerance CA 3.3-014

The Trip Setpoints are the nominal values at which the bistables are set. Any bistable is considered to be properly adjusted when the "as left" value is within the band for CHANNEL CALIBRATION ~~accuracy~~ tolerance ~~(i.e., ± rack calibration + comparator setting accuracy)~~.

INSERT B 3.3.1 BKG(B)

DC ALL-005

The Trip Setpoints used in the bistables are based on the analytical limits stated in Reference 1. The selection of these Trip Setpoints is such that adequate protection is provided when all sensor and processing time delays are taken into account. To allow for calibration tolerances, instrumentation uncertainties, instrument drift, and severe environment errors for those RTS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 5), the Trip Setpoints and Allowable Values specified in Table 3.3.1-1 in the accompanying LCO are conservatively adjusted with respect to the analytical limits. A detailed description of the methodology used to calculate the Trip Setpoints, including their explicit uncertainties, is provided in the ~~"RTS/ESFAS Setpoint Methodology~~ ~~Study"~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagel 21 Version," May 1993 (Ref. 6). The actual nominal Trip Setpoint entered into the bistable is more conservative than that specified by the Allowable Value to account for changes in random measurement errors detectable by a COT. One example of such a change in measurement error is drift during the surveillance interval. If the measured setpoint does not exceed the Allowable Value, the bistable is considered OPERABLE.

Q3.3.G-1

INSERT B 3.3.1 BKG (D)

DC ALL-005

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

a. Power Range Neutron Flux-High (continued)

Remove strike-out

DC 3.3-Ed

will terminate the reactivity excursion and shut down the reactor prior to reaching a power level that could damage the fuel. In MODE 3, 4, 5, or 6, ~~the NIS power range detectors cannot detect neutron levels in this range. In these MODES,~~ the Power Range Neutron Flux-High does not have to be OPERABLE because the reactor is shut down and reactivity excursions into the power range are extremely unlikely. Other RTS Functions and administrative controls provide protection against reactivity additions when in MODE 3, 4, 5, or 6.

b. Power Range Neutron Flux-Low

The LCO requirement for the Power Range Neutron Flux-Low trip Function ensures that protection is provided against a positive reactivity excursion from low power or subcritical conditions.

The LCO requires all four of the Power Range Neutron Flux-Low channels to be OPERABLE (2-out-of-4 coincidence).

In MODE 1, below the Power Range Neutron Flux (P-10 setpoint), and in MODE 2, the Power Range Neutron Flux-Low trip must be OPERABLE. This Function may be manually blocked by the operator when two out of four power range channels are greater than ~~approximately~~ or equal to 10% RTP (P-10 setpoint). This Function is automatically unblocked when three out of four power range channels are below the P-10 setpoint. Above the P-10 setpoint, positive reactivity additions are mitigated by the Power Range Neutron Flux-High trip Function.

In MODE 3, 4, 5, or 6, the Power Range Neutron Flux-Low trip Function does not have to be OPERABLE because the reactor is shut down and the NIS power range detectors cannot detect neutron levels in this range. Other RTS trip Functions and administrative controls provide protection

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

4. Intermediate Range Neutron Flux (continued)

DC 3.3-Ed

do not provide any input to control systems. Note that this Function also provides a signal to prevent automatic and manual rod withdrawal prior to initiating a reactor trip. Limiting further rod withdrawal may terminate the transient and eliminate the need to trip the reactor.

The LCO requires two channels of Intermediate Range Neutron Flux to be OPERABLE (1-out-of-2 coincidence). Two OPERABLE channels are sufficient to ensure no single random failure will disable this trip Function.

Because this trip Function is important only during startup, there is generally no need to disable channels for testing while the Function is required to be OPERABLE. Therefore, a third channel is unnecessary.

In MODE 1 below the P-10 setpoint, and in MODE 2 above the P-6 setpoint, when there is a potential for an uncontrolled RCCA bank rod withdrawal accident during reactor startup, the Intermediate Range Neutron Flux trip must be OPERABLE. Above the P-10 setpoint, the Power Range Neutron Flux-High Setpoint trip and the Power Range Neutron Flux-High Positive Rate trip provide core protection for a rod withdrawal accident. In MODE 3, 4, or 5, the Intermediate Range Neutron Flux trip does not have to be OPERABLE because the control rods must be fully inserted and only the shutdown rods may be withdrawn. The reactor cannot be started up in this condition. The core also has the required SDM to mitigate the consequences of a positive reactivity addition accident. In MODE 6, all rods are fully inserted and the core has a required increased SDM. Also, the NIS intermediate range detectors cannot detect neutron levels present in this MODE.

TR 3.3-006

2 below the P-6 setpoint, the Source Range Neutron Flux trip function provides core protection for reactivity accidents. IN MODE

5. Source Range Neutron Flux

The LCO requirement for the Source Range Neutron Flux trip Function ensures that protection is provided against an uncontrolled RCCA bank rod withdrawal accident from a subcritical condition during startup. This trip Function provides redundant protection to

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

7. Overpower ΔT

The Overpower ΔT trip Function ensures that protection is provided to ensure the integrity of the fuel (i.e., no fuel pellet melting and less than 1% cladding strain) under all possible overpower conditions for Condition I and II events (Ref. 12). This trip Function also limits the required range of the Overtemperature ΔT trip Function and provides a backup to the Power Range Neutron Flux—High Setpoint trip. The Overpower ΔT trip Function ensures that the allowable heat generation rate (kW/ft) of the fuel is not exceeded. It uses the ΔT of each loop as a measure of reactor power with a setpoint that is automatically varied with the following parameters: DC3.3-ED

The overpower ΔT trip also provides protection to mitigate the consequences of small steamline breaks, as reported in WCAP-9226, Ref. 16, and steamline breaks with coincident control rod withdrawal (Ref. 3). DC ALL-002

- reactor coolant average temperature—the Trip Setpoint is varied to correct for changes in coolant density and specific heat capacity with changes in coolant temperature; and
- rate of change of reactor coolant average temperature—including dynamic compensation for the delays between the core and the temperature measurement system.

DC ALL-002

Red-line this text

ΔT_0, as used in the overtemperature and overpower ΔT trips, represents the 100 percent RTP value of ΔT as measured by the plant for each loop. For the initial startup of a refueled core, ΔT_0 is initially assumed to be the same as the last measured ΔT value from the previous cycle until ΔT is measured again at full power. Accurate determination of the loop specific ΔT values should be made quarterly when performing the incore/excore recalibration at steady-state conditions (i.e., power distributions not affected by xenon or other transient conditions). The variation in indicated ΔT between loops is due to the variance in both real hot leg temperatures and hot leg temperature measurement biases. The real hot leg temperature variance between loops is primarily caused by asymmetrical flow in the upper plenum, and the difference in hot leg temperature measurement biases ins primarily caused by differences in hot leg temperature streaming error between loops. The change in the indicated loop ΔTs with burn up is caused primarily by the change in the hot leg streaming biases as the radial power distribution changes. Q3.3G-1

The Overpower ΔT trip Function is calculated for each loop as per Note 2 of Table 3.3.1-1. Trip occurs if Overpower ΔT is indicated in two loops. ~~At some units.~~ The temperature signals are used for other control functions. ~~At those units.~~ thus the actuation logic must be able to withstand an input failure to the control system, which may then require the protection function actuation and a single failure in the remaining channels providing the protection function actuation. Note that this Function also provides a signal to

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

power and reactor power. A reduction in power will normally alleviate the Overpower ΔT condition and may prevent a reactor trip.

The LCO requires four channels ~~for two and four loop units (three channels for three loop units)~~ of the Overpower ΔT trip Function to be OPERABLE (2-out-of-4 coincidence). Note that the Overpower ΔT trip Function receives input ~~from consequences of small steamline breaks, as reported in WCAP 9227, Ref. 11, and steamline breaks with coincident control rod withdrawal (Ref. 12)~~. DC 3.3-Ed

DC ALL-002

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

a. Intermediate Range Neutron Flux, P-6 (continued)

In MODE 3, 4, 5, or 6, the P-6 interlock does not have to be OPERABLE because the NIS Source Range is providing core protection.

b. Low Power Reactor Trips Block, P-7

The Low Power Reactor Trips Block, P-7 interlock is actuated by input from either the Power Range Neutron Flux, P-10, or the Turbine Impulse Pressure, P-13 interlock. The LCO requirement DC 3.3-Ed for the P-7 interlock ensures that the following Functions are performed:

(1) on increasing power, the P-7 interlock automatically enables reactor trips on the following Functions:

- Pressurizer Pressure – Low;
- Pressurizer Water Level – High;
- Reactor Coolant Flow – Low (Two Loops);
- RCPs Breaker Open (Two Loops);
- Undervoltage RCPs; and
- Underfrequency RCPs.

These reactor trips are only required when operating above the P-7 setpoint (approximately 10% power). The reactor trips provide protection against violating the DNBR limit. Below the P-7 setpoint, the RCS is capable of providing sufficient natural circulation without any RCP running.

(2) on decreasing power, the P-7 interlock automatically blocks reactor trips on the following Functions:

- Pressurizer Pressure – Low;

(continued)

BASES

APPLICABLE SAFETY, ANALYSES, LCO, and APPLICABILITY

b. Low Power Reactor Trips Block, P-7 (continued)

- Pressurizer Water Level - High;

DC 3.3-Ed

- Reactor Coolant Flow - Low (Two Loops);
- RCP Breaker Position (Two Loops);
- Undervoltage RCPs; and
- Underfrequency RCPs.

Trip Setpoint and Allowable Value are not applicable to the P-7 interlock because it is a logic Function and thus has no parameter with which to associate an LSSS. The P-7 train is operable if the P-10 and P-13 interlocks are in their required states based on plant conditions.

The P-7 interlock is a logic Function with train and not channel identity. Therefore, the LCO requires one channel per train of Low Power Reactor Trips Block, P-7 interlock to be OPERABLE in MODE 1 (1-out-of-2 coincidence).

The low power trips are blocked below the P-7 setpoint and unblocked above the P-7 setpoint. In MODE 2, 3, 4, 5, or 6, this Function does not have to be OPERABLE because the interlock performs its Function when power level drops below 10% power, which is in MODE 1.

c. Power Range Neutron Flux, P-8

The Power Range Neutron Flux, P-8 interlock is actuated at approximately ~~48~~ 35% power as determined by two-out-of-four NIS power range detectors. The P-8 interlock automatically enables the Reactor Coolant Flow - Low ~~(Single Loop) and RCP Breaker Position (Single Loop)~~ reactor trips on low flow in one or more RCS loops on increasing power. The LCO requirement for this trip Function ensures that protection is provided against a loss of flow in any RCS loop that could result in DNB conditions in the core when greater than approximately ~~48~~ 35% power. On decreasing

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

e. Power Range Neutron Flux, P-10

The Power Range Neutron Flux, P-10 interlock is actuated at ~~approximately~~ 10% power, as determined by two-out-of-four NIS power range detectors. If power level falls below 10% RTP on 3 of 4 channels, the nuclear instrument trips will be automatically unblocked. The LCO requirement for the P-10 interlock ensures that the following Functions are performed:

- on increasing power, the P-10 interlock allows the operator to manually block the Intermediate Range Neutron Flux reactor trip. Note that blocking the reactor trip also blocks the signal to prevent automatic and manual rod withdrawal;
- on increasing power, the P-10 interlock allows the operator to manually block the Power Range Neutron Flux—Low reactor trip; DC 3.3Ed Remove strike out
- on increasing power, the P-10 interlock automatically provides a back up signal to block the Source Range Neutron Flux ~~reactor trip, and also to de-energize the NIS source range~~ detectors high voltage and allows manual block of the IR rod stop; DC AU-002
- the P-10 interlock provides one of the two inputs to the P-7 interlock; and Add strike out
- on decreasing power, the P-10 interlock automatically enables the Power Range Neutron Flux—Low reactor trip and the Intermediate Range Neutron Flux reactor trip (and rod stop); and
- on decreasing power, the P-10 interlock automatically defeats the block of the source range neutron flux trip and with P-6 energizes the source range high voltage.

The LCO requires ~~four~~three channels of Power Range Neutron Flux, P-10 interlock to be OPERABLE in MODE 1 or 2 (2-out of ~~3~~ 4). Q 3.3-44

OPERABILITY in MODE 1 ensures the Function is available to perform its decreasing power Functions in the event of a reactor shutdown. This Function must be OPERABLE in MODE 2 to ensure that core protection is provided during a

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

e. Power Range Neutron Flux, P-10 (continued)

startup or shutdown by the Power Range Neutron Flux—Low and Intermediate Range Neutron Flux reactor trips. In MODE 3, 4, 5, or 6, this Function does not have to be OPERABLE because the reactor is not at power and the Source Range Neutron Flux reactor trip provides core protection.

f. Turbine Impulse Chamber Pressure, P-13

The Turbine Impulse Chamber Pressure, P-13 interlock is actuated when the pressure in the first stage of the high pressure turbine is greater than ~~approximately~~ 10% of the rated ~~full~~thermal power pressure equivalent. ~~This~~The interlock is determined by one-out-of-two pressure detectors. The LCO requirement for this Function ensures that one of the inputs to the P-7 interlock is available.

The LCO requires two channels of Turbine Impulse Chamber Pressure, P-13 interlock to be OPERABLE in MODE 1 (1-out-of-2 coincidence).

The Turbine Impulse Chamber Pressure, P-13 interlock must be OPERABLE when the turbine generator is operating. The interlock Function is not required OPERABLE in MODE 2, 3, 4, 5, or 6 because the turbine generator is not operating.

19. Reactor Trip Breakers

This trip Function applies to the RTBs exclusive of individual trip mechanisms. The LCO requires two OPERABLE trains of trip breakers. A trip breaker train consists of the trip logic and all trip breakers associated with a single RTS logic train that are racked in, closed, and capable of supplying power to the ~~CRD~~ Control Rod System. Thus, the train may consist of the main breaker, bypass breaker, or main breaker and bypass breaker, depending upon the system configuration. Two OPERABLE trains ensure no single random failure can disable the RTS trip capability. DC 3.3-Ed

(continued)

BASES

ACTIONS

A.1 ~~(continued)~~ DC 3.3-Ed

or trains TR 3.3-006

Condition A applies to all RTS protection Functions. Condition A addresses the situation where one or more required channels or trains for one or more Functions are inoperable at the same time. The Required Action is to refer to Table 3.3.1-1 and to take the Required Actions for the protection functions affected. The Completion Times are those from the referenced Conditions and Required Actions.

B.1, B.2.1, and B.2.2

Condition B applies to the Manual Reactor Trip in MODE 1 or 2. This action addresses the train orientation of the SSPS for this Function. With one channel inoperable, the inoperable channel must be restored to OPERABLE status within 48 hours. In this Condition, the remaining OPERABLE channel is adequate to perform the safety function.

The Completion Time of 48 hours is reasonable considering that there are two automatic actuation trains and another manual initiation channel OPERABLE, and the low probability of an event occurring during this interval.

If the Manual Reactor Trip Function cannot be restored to OPERABLE status within the allowed 48 hour Completion Time, the unit must be brought to a MODE in which the requirement does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 additional hours (54 hours total time) ~~followed by opening the RTBs within 1 additional hour (55 hours total time)~~. The 6 additional hours to reach MODE 3 ~~and the 1 hour to open the RTBs~~ is ~~are~~ reasonable, based on operating experience, to ~~reach MODE 3 and open the RTBs~~ exit the applicability from full power operation in an orderly manner and without challenging unit systems. With ~~the RTBs open and~~ the unit in MODE 3, Condition C is entered if the Manual Reactor Trip Function has not been restored and the Rod Control System is capable of rod withdrawal ~~of all~~ or one or more rods are not fully inserted ~~this trip Function is no longer required to be OPERABLE.~~ TR 3.3-006

TR 3.3-006

C.1 ~~and~~ C.2.1, and C.2.2

Condition C applies to the following reactor trip Functions in MODE 3, 4, or 5 with the ~~RTBs closed and the CRD~~ Rod Control System capable of rod withdrawal or ~~all~~ one or more rods not fully inserted:

TR 3.3-006

(continued)

BASES

ACTIONS

C.1, ~~and~~ C.2.1, and C.2.2 (continued)

- Manual Reactor Trip;
- RTBs;
- RTB Undervoltage and Shunt Trip Mechanisms; and
- Automatic Trip Logic.

action must be initiated within the same 48 hours to fully insert all rods

TR 3.3-006

for the latter

This action addresses the train orientation of the SSPS for these Functions. With one channel or train inoperable, the inoperable channel or train must be restored to OPERABLE status within 48 hours. If the affected Function(s) cannot be restored to OPERABLE status within the allowed 48 hour Completion Time, the unit must be placed in a MODE in which the requirement does not apply. To achieve this status, ~~the RTBs must be opened~~ rods must be fully inserted and the Rod Control System rendered incapable of rod ~~withdrawn~~ withdrawal within the next hour. The additional hour provides sufficient time to accomplish the action in an orderly manner. With the ~~RTBs open,~~ rods fully inserted and the Rod Control System rendered incapable of rod withdrawn these Functions are no longer required. (e.g., by de-energizing all CRDMs, by opening the RTBs, or by de-energizing the motor generator (MG) sets)

TR 3.3-006

must be

DC 3.3-Ed

The Completion Time is reasonable considering that in this Condition, the remaining OPERABLE train is adequate to perform the safety function, and given the low probability of an event occurring during this interval.

Q 3.3-122

while this LCO is not met for

Condition C is modified by a Note stating that ~~the transition from~~ making MODE 5 ~~to MODE 6 with~~ the Rod Control System capable of rod withdrawal ~~or all rods not fully inserted~~ is not permitted for Functions 19, 20, or 21. ~~This Note specifies an exception to LCO 3.0.4 for this MODE 5 transition and avoids placing the plant in a condition where control rods can be withdrawn while the reactor trip system is degraded.~~ This note is in addition to the requirements of LCO 3.0.4 which preclude the transition from either MODE 3 or MODE 4 to MODE 3 or MODE 4 with the Rod control System capable of rod withdrawal or all rods not fully inserted for Functions 19, 20, or 21 with one channel or train inoperable.

Q 3.3-135

D.1.1, D.1.2, D.2.1, D.2.2, and D.3

Condition D applies to the Power Range Neutron Flux—High Function.

The NIS power range detectors provide input to the ~~CRD~~ Rod Control System ~~and the SG Water Level Control System~~ and, therefore, have a two-out-of-four trip logic. A known inoperable channel must be placed in the tripped condition. This results in a partial trip condition requiring only one-out-of-three logic for actuation. The 6 hours allowed to place the inoperable channel in the tripped condition is justified in WCAP-10271-P-A (Ref. 7).

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.2 (continued)

the NIS ~~channel output~~power indications cannot be properly adjusted, the channel is declared inoperable.

Two Notes modify SR 3.3.1.2. The first Note indicates that the NIS ~~channel output~~power indications shall be adjusted consistent with the calorimetric results if the absolute difference between the NIS ~~channel output~~power indications and the calorimetric is > 2% RTP.. The second Note clarifies that this Surveillance is required only if reactor power is ≥ 15% RTP and that ~~12~~ 24 hours is

DC 3.3-Ed

allowed for performing the first Surveillance after reaching 15% RTP but prior to exceeding 30% RTP. At lower power levels, calorimetric data are inaccurate.

The Frequency of every 24 hours is adequate. It is based on unit operating experience, considering instrument reliability and operating history data for instrument drift. Together these factors demonstrate the change in the absolute difference between NIS and heat balance calculated powers rarely exceeds 2% in any 24 hour period.

In addition, control room operators periodically monitor redundant indications and alarms to detect deviations in channel outputs.

SR 3.3.1.3

SR 3.3.1.3 compares the incore system to the NIS channel output every 31 EFPD. If the absolute difference is ≥ 3%, the NIS channel is still OPERABLE, but must be readjusted. INSERT SR 3.3.1.3 CA 3.3-006

If the NIS channel cannot be properly readjusted, the channel is declared inoperable. This Surveillance is performed to verify the f(ΔI) input to the overtemperature ΔT Function.

Two Notes modify SR 3.3.1.3. Note 1 indicates that the excore NIS channel shall be adjusted if the absolute difference between the incore and excore AFD is ≥ 3%. DC ALL-002
Note 2 clarifies that the Surveillance is required only if reactor power is ≥50% ~~[15%]~~ RTP and that 24 hours is allowed for performing the first Surveillance after reaching 50% ~~[15%]~~ RTP.

The Frequency of every 31 EFPD is adequate. It is based on unit operating experience, considering instrument reliability and operating history data for instrument drift. Also, since the ~~slow~~ changes in neutron flux are slow during the fuel cycle ~~can be detected during this interval~~, the expected change in the absolute difference between the incore and excore AFD will be less than 3 percent AFD during this interval.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.16 (continued)

determined during unit operation because equipment operation is required to measure response times. Experience has shown that these components usually pass this surveillance when performed at the 18 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.3.1.16 is modified by a Note stating that neutron detectors are excluded from RTS RESPONSE TIME testing. This Note is necessary because of the difficulty in generating an appropriate detector input signal. Excluding the detectors is acceptable because the principles of detector operation ensure a virtually instantaneous response. Response time of the neutron flux signal portion of the channel shall be measured from detector output or input to the first electronic component in the channel.

SR 3.3.1.17

DC 3.3-E2 (17) P-7 logic interlock. Q 3.3-54

SR 3.3.1.~~18~~ 17 is the performance of an ACTUATION LOGIC TEST for the ~~Seismic trip~~. The frequency of every ~~18~~ 24 months is based on instrument reliability and operating history data, and the requirement that the test be performed during a refueling outage so that the annunciator can be verified.

DC-ALL-005

REFERENCES

1. FSAR, Chapter ~~[7]~~.
2. FSAR, Chapter ~~[6]~~.
3. FSAR, Chapter ~~[15]~~.
4. IEEE-279-1971.
5. 10 CFR 50.49.
6. ~~RTS/ESFAS Setpoint Methodology Study~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagel 21 Version," May 1993.
7. WCAP-10271-P-A, Supplement 2, Rev. 1, June 1990.
8. ~~Technical Requirements Manual, Section 15~~ ~~FSAR, Chapter 7, "Response Times."~~ WCAP 13632 - PA-1, Rev. 2 "Elimination of Pressure Sensor Response Time Testing Requirements."
9. FSAR, Chapter 9.2.7 & 9.2.2.
10. FSAR, Chapter 10.3 & 10.4.
11. FSAR, Chapter 8.3.
12. DCM S-38A, "Plant Protection System".
13. WCAP-13878, "Reliability of Potter & Brumfield MDR Relays", June 1994.

(continued)

BASES

BACKGROUND

Solid State Protection System (continued)

transients. If a required logic matrix combination is completed, the system will send actuation signals via master and slave relays to those components whose aggregate Function best serves to alleviate the condition and restore the unit to a safe condition. Examples are given in the Applicable Safety Analyses, LCO, and Applicability sections of this Bases.

Each SSPS train has a built in testing device that can automatically test the decision logic matrix functions and the actuation devices while the unit is at power. When any one train is taken out of service for testing, the other train is capable of providing unit monitoring and protection until the testing has been completed. The testing device is semiautomatic to minimize testing time.

The actuation of ESF components is accomplished through master and slave relays. The SSPS energizes the master relays appropriate for the condition of the unit. Each master relay then energizes one or more slave relays, which then cause actuation of the end devices. The master and slave relays are routinely tested to ensure operation. The test of the master relays energizes the relay, which then operates the contacts and applies a low voltage to the associated slave relays. The low voltage is not sufficient to actuate the slave relays but only demonstrates signal path continuity. The SLAVE RELAY TEST actuates the devices if their operation will not interfere with continued unit operation. For the latter case, actual component operation is prevented by the SLAVE RELAY TEST circuit, and slave relay contact operation is verified by a continuity check of the circuit containing the slave relay. ~~For slay relays in the ESF actuation system circuit that are Potter & Brumfield type MAR relays,~~ The SLAVE RELAY TEST is performed on a refueling frequency. The test frequency is based on relay reliability assessments presented in WCAP-13878, "Reliability Assessment of Potter and Brumfield MDR Series Relays," WCAP-13900, "Extension of Slave Relay Surveillance Test Intervals," and WCAP-14117, "Reliability Assessment of Potter and Brumfield MDR Series Relay." These reliability assessments are relay specific and apply only to Potter and Brumfield MDR series relays which are the only relays used in the ESF actuation system. Note that for normally energized applications, the relays may have to be replaced periodically in accordance with the guidance given in WCAP-13878 for MDR relays. DC 3.3-Ed

~~Reviewer's Note: No one unit ESFAS incorporates all of the Functions listed in Table 3.3.2-1. In some cases (e.g., Containment Pressure High 3, Function 2.c), the table reflects several different implementations of the same Function. Typically, only one of these implementations are used at any specific unit.~~

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

1. Safety Injection (continued)

.2. Boration to ensure recovery and maintenance of SDM (k_{eff} < 1.0).

These functions are necessary to mitigate the effects of high energy line breaks (HELBs) both inside and outside of containment. The SI signal is also used to initiate other Functions such as:

- Phase A Isolation;
- Containment ~~Purge~~ Ventilation Isolation;
- Reactor Trip;
- Turbine Trip from Reactor Trip with P-9;
- Feedwater Isolation and Feedwater Pump Turbine Trip;
- Start of ~~motor driven~~ auxiliary feedwater (AFW) pumps; Q 3-08

(via Phase A isolation)

- Control room ventilation ~~isolation;~~ to pressurization mode and Auxiliary Building to Building and Safeguards or Safeguards only mode; DC 3.3-Ed
- ~~Enabling automatic switchover of Emergency Core Cooling Systems (ECCS) suction to containment sump.~~
- Start the diesel generators (DGs) and transfer to the startup bus;
- Start the containment fan cooler units (CFCUs) in low speed;
- Start the component cooling water and auxiliary salt water pumps;
- Input to containment spray pump and discharge valve auto start (with containment spray signal); DC 3.3-Ed
- Isolate SG sample blowdown lines

These other functions ensure:

- Isolation of nonessential systems through containment penetrations;
- Trip of the turbine and reactor to limit power generation;
- Isolation of main feedwater (MFW) to limit secondary side mass losses;

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

1. Safety Injection (continued)

- ~~Enabling ECCS suction from the refueling water storage tank (RWST) switchover on low low RWST level to ensure continued cooling via use of the containment sump.~~
- Start the DGs to compensate for a possible loss of offsite power (~~LOCALOOP~~); and DC 3.3-Ed
- Start the components associated with the accident heat removal systems.

a. Safety Injection – Manual Initiation

The LCO requires one channel per train to be OPERABLE. The operator can initiate SI at any time by using either of two switches in the control room. This action will cause actuation of all components in the same manner as any of the automatic actuation signals.

The LCO for the Manual Initiation Function ensures the proper amount of redundancy is maintained in the manual ESFAS actuation circuitry to ensure the operator has manual ESFAS initiation capability.

Each channel consists of one ~~push button~~ control switch and the interconnecting wiring to the actuation logic cabinet. Each ~~push button~~ control switch actuates both trains. This configuration does not allow testing at power.

b. Safety Injection – Automatic Actuation Logic and Actuation Relays

This LCO requires two trains to be OPERABLE. Actuation logic consists of all circuitry housed within the actuation subsystems, including the initiating relay contacts responsible for actuating the ESF equipment.

Manual and automatic initiation of SI must be OPERABLE in MODES 1, 2, and 3. In these MODES, there is sufficient energy in the primary and secondary systems to warrant automatic initiation of ESF systems. Manual Initiation is also required in MODE 4 even though automatic actuation is not required. In this MODE, adequate time is available to manually actuate required components in the event of a DBA, but

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

a. Containment Spray—Manual Initiation (continued)

DC ALL-002

simultaneously and an SI signal must be present to ~~initiate~~ containment spray. ~~There are two sets of two switches each in the control room.~~ Simultaneously turning the two switches in either set will actuate containment spray in both trains in the same manner as the automatic actuation signal. Two Manual Initiation switches in each train are required to be OPERABLE. ~~to ensure no single failure disables the Manual Initiation Function.~~ Note that Manual Initiation of containment spray also actuates Phase B containment isolation and CVI.

b. Containment Spray—Automatic Actuation Logic and Actuation Relays

Automatic actuation logic and actuation relays consist of the same features and operate in the same manner as described for ESFAS Function 1.b.

Manual and automatic initiation of containment spray must be OPERABLE in MODES 1, 2, 3 and ~~3~~ 4 when there is a potential for an accident to occur, and sufficient energy in the primary or secondary systems to pose a threat to containment integrity due to overpressure conditions. Manual initiation is also required in MODE 4, even though automatic actuation is not required. In this MODE, adequate time is available to manually actuate required components in the event of a DBA. However, because of the large number of components actuated on a containment spray, actuation is simplified by the use of the manual actuation control switches ~~push buttons~~. Automatic actuation logic and actuation relays must be OPERABLE in MODE 4 to support system level manual initiation. In MODES 5 and 6, there is insufficient energy in the primary and secondary systems to result in containment overpressure. In MODES 5 and 6, there is also adequate time for the operators to evaluate unit conditions and respond, to mitigate the consequences of abnormal conditions by manually starting individual components. DC 3.3-Ed

(continued)

BASES

DC 3.3-ED

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

c. Steam Line Isolation – Containment Pressure – High ~~2~~ - High (continued)

break. This would cause a significant increase in the containment pressure, thus allowing detection and closure of the MSIVs. The Steam Line Isolation Function remains OPERABLE in MODES 2 and 3 unless all MSIVs are closed and ~~[de-activated]~~ , i.e., actions are taken to assure that the valve cannot be inadvertently opened. In MODE 4, the increase in containment pressure following a pipe break would occur over a relatively long time period such that manual action could reasonable be expected to provide protection and ESFAS Function 4.d need not be OPERABLE. In MODES 4, 5, and 6, there is not enough energy in the primary and secondary sides to pressurize the containment to the Containment Pressure – High ~~2~~ -High setpoint.

d. Steam Line Isolation – Steam Line Pressure

(1) Steam Line Pressure – Low

Steam Line Pressure – Low provides closure of the MSIVs in the event of an SLB to maintain at least one unfaulted SG as a heat sink for the reactor, and to limit the mass and energy release to containment. This Function provides closure of the MSIVs in the event of a feed line break to ensure a supply of steam for the turbine driven AFW pump. Steam Line Pressure – Low was discussed previously under SI Function 1.e.1.

Steam Line Pressure – Low Function must be OPERABLE in MODES 1, 2, and 3 (above P-11) and below P-11 if not blocked), with any main steam valve open, when a secondary side break or stuck open valve could result in the rapid depressurization of the steam lines. This signal may be manually blocked by the operator ~~below the P-11 setpoint~~. Below P-11 when blocked, an inside containment SLB will be terminated by automatic actuation via Containment Pressure – High ~~2~~ -High. Stuck valve transients and outside containment SLBs will be terminated by the Steam Line Pressure – Negative Rate – High signal for Steam Line Isolation below P-11 when SI has been manually blocked. The Steam Line Isolation Function is required in MODES 2

Q3.3-63

(continued)

E

BASES

ACTIONS (continued)

E.1, E.2.1, and E.2.2

Condition E applies to:

- ~~Containment Pressure - High;~~ DC ALL-002
- ~~Containment Spray Containment Pressure - High 3 (High, High) (two, three, and four loop units); and~~ Add strike out Q 3.3-66
- ~~Containment Phase B Isolation Containment Pressure - High 3 (High, High)~~ ~~; and~~ DC ALL-002
- Steam Line Isolation Containment Pressure - High-High

This ~~None of these~~ signal~~s has~~ does not input to a control function. Thus, two-out-of-three logic is necessary to meet acceptable protective requirements. However, a two-out-of-three design would require tripping a failed channel. This is undesirable because a single failure of the Containment Pressure input would then cause spurious containment spray initiation. Q 3.3-66 Spurious spray actuation is undesirable because of the cleanup problems presented. Therefore, these channels are designed with two-out-of-four logic so that a failed channel may be bypassed rather than tripped. Note that one channel may be bypassed and still satisfy the single failure criterion. Furthermore, with one channel bypassed, a single instrumentation channel failure will not spuriously initiate containment spray. ~~The containment spray signal is also interlocked with SI and will not initiate without simultaneous SI and CSAS spray signals.~~ containment DC ALL-002

To avoid the inadvertent actuation of containment spray and Phase B containment isolation, the inoperable channel should not be placed in the tripped condition. Instead it is bypassed. Restoring the channel to OPERABLE status, or placing the inoperable channel in the bypass condition within 6 hours, is sufficient to assure that the Function remains OPERABLE and minimizes the time that the Function may be in a partial trip condition (assuming the inoperable channel has failed high). The Completion Time is further justified based on the low probability of an event occurring during this interval. Failure to restore the inoperable channel to OPERABLE status, or place it in the bypassed condition within 6 hours, requires the unit be placed in MODE 3 within the following 6 hours ~~and MODE 4 within the next 6 hours~~ ~~and MODE 5 within 42 hours~~. Remove strike out Remove strike out The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. Q 3.3-66 In MODE 4 5 these Functions are no longer required OPERABLE.

ACTIONS

(continued)

BASES

E.1, E.2.1, and E.2.2 (continued)

The Required Actions are modified by a Note that allows one additional channel to be bypassed for up to ~~[4]~~ hours for surveillance testing. Placing a second channel in the bypass condition for up to 4 hours for testing purposes is acceptable based on the results of Reference 8.

F.1, F.2.1, and F.2.2

Condition F applies to~~:~~ the P-4 Interlock.

DC 3.3-Ed

- ~~Manual Initiation of Steam Line Isolation;~~
- ~~Loss of Offsite Power;~~
- ~~Auxiliary Feedwater Pump Suction Transfer on Suction Pressure - Low; and~~
- P-4 Interlock.

For ~~the Manual Initiation and~~ the P-4 Interlock Function~~s~~, this action addresses the train orientation of the SSPS. ~~For the Loss of Offsite Power Function, this action recognizes the lack of manual trip provision for a failed channel. For the AFW System pump suction transfer channels, this action recognizes that placing a failed channel in trip during operation is not necessarily a conservative action. Spurious trip of this function could align the AFW System to a source that is not immediately capable of supporting pump suction.~~ If a train ~~or channel~~ is inoperable, 48 hours is allowed to return it to OPERABLE status. The specified Completion Time is reasonable considering the nature of ~~these~~ this Function~~s~~, the available redundancy, and the low probability of an event occurring during this interval. If the Function cannot be returned to OPERABLE status, the unit must be placed in MODE 3 within the next 6 hours and MODE 4 within the following 6 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power in an orderly manner and without challenging unit systems. In MODE 4, the unit does not have any analyzed transients or conditions that require the explicit use of the protection function~~s~~ noted above.

(continued)

BASES

ACTIONS (continued)

G.1, G.2.1 and G.2.2

Condition G applies to the automatic actuation logic and actuation relays for the Steam Line Isolation ~~[, Turbine Trip and Feedwater Isolation,]~~ and AFW actuation Functions.

The action addresses the train orientation of the SSPS and the master and slave relays for these functions. If one train is inoperable, 6 hours are allowed to restore the train to OPERABLE status. The Completion Time for restoring a train to OPERABLE status is reasonable considering that there is another train OPERABLE, and the low probability of an event occurring during this interval. If the train cannot be returned to OPERABLE status, the unit must be brought to MODE 3 within the next 6 hours and MODE 4 within the following 6 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. Placing the unit in MODE 4 removes all requirements for OPERABILITY of the protection channels and actuation functions. In this MODE, the unit does not have analyzed transients or conditions that require the explicit use of the protection functions noted above.

DC ALL-002

The Required Actions are modified by a Note that allows one train to be bypassed for up to 4 hours for surveillance testing provided the other train is OPERABLE. This allowance is based on the reliability analysis (Ref. 8) assumption that 4 hours is the average time required to perform channel surveillance.

H.1 and H.2

DC 3.3-Ed

Condition H applies to the Automatic Actuation Logic and Actuation Relays for the Turbine Trip and Feedwater Isolation Function.

This action addresses the train orientation of the SSPS and the master and slave relays for this Function. If one train is inoperable, 6 hours are allowed to restore the train to OPERABLE status or the unit must be placed in MODE 3 within the following 6 hours. The Completion Time for restoring a train to OPERABLE status is reasonable considering that there is another train OPERABLE, and the low probability of

(continued)

BASES

ACTIONS

I.1 and I.2 (continued)

partial trip condition where one additional tripped channel will result in actuation. The 6 hour Completion Time is justified in Ref. 8. Failure to restore the inoperable channel it OPERABLE status or place it in the tripped condition withing 6 hours, requires the Unit to be placed in MODE 2 with in the following 6 hours. The allowed Completion time of 6 hours is reasonable, based on operating experience, to reach MODE 2 from full power conditions in an orderly manner without challenging unit systems. In MODE 2, this Function is no longer required OPERABLE.

The Required Actions are modified by a Note ~~that~~ allows the inoperable channel to be bypassed for up to (4) hours for surveillance testing of other channels. The 6 hours allowed to place the inoperable channel in the tripped condition, and the 4 hours allowed for a second channel to be in the bypassed condition for testing, are justified in Reference 8.

J.1 and J.2

~~NOT USED~~ INSERT ACTION J BASES Q 3.3-127

~~Condition J applies to the AFW pump start on trip of all MFW pumps.~~

~~This action addresses the train orientation of the SSPS for the auto start function of the AFW System on loss of all MFW pumps. The OPERABILITY of the AFW System must be assured by allowing automatic start of the AFW System pumps. If a channel is inoperable, 48 hours are allowed to return it to an OPERABLE status. If the function cannot be returned to an OPERABLE status, 6 hours are allowed to place the unit in MODE 3. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging unit systems. In MODE 3, the unit does not have any analyzed transients or conditions that require the explicit use of the protection function noted above. The allowance of 48 hours to return the train to an OPERABLE status is justified in Reference 8.~~

K.1.1, K.1.2

~~K.1~~, K.2.1 and K.2.2

INSERT K

Condition K applies to:

- ~~RWST Level - Low Low Coincident with Safety Injection, and~~
- ~~RWST Level - Low Low Coincident with Safety Injection and Coincident with Containment Sump Level - High.~~

(continued)

(B)

INSERT K

K.1.1, K.1.2

~~K.1~~, K.2.1 and K.2.2

the Residual Heat Removal Pump Trip on

cut-out

Condition K applies to RWST Level - Low. ~~which trips both RHR pumps.~~ Restoring the channel to OPERABLE status or placing the inoperable channel in the ~~bypass~~ condition within 6 hours is sufficient to ensure that the Function remains OPERABLE, and minimizes the time that the Function may be in a partial trip condition (assuming the inoperable channel has failed low). Placing the out-of-service channel in ~~bypass will generate a high level signal on that channel, which will ensure that under no circumstances can a failure of an additional channel low prevent the RHR pumps from starting as the result of an SI signal~~. The 6 hour Completion Time is justified in Reference 8. If the channel cannot be placed in the ~~bypass~~ condition within 6 hours and returned to an OPERABLE status within ~~72~~ hours, the unit must ~~immediately enter LCO 3.0.3.~~ ~~The 72 hour Allowed Outage Time (AOT) is the same AOT that is allowed for one inoperable RHR pump. This comparison is reasonable because the possible consequences of losing a second level channel can, in the worst case, be no more severe than the loss of one RHR pump, and the probability of losing the level channel is even lower than that of losing an RHR pump.~~ The allowed Completion Times for shutdown are reasonable based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. In MODE 5, the unit does not have any analyzed transients or conditions that require the explicit use of the pump trip function noted above.

DC 3.3-Ed

cut-out

48

Cut-out removes that channel from the trip logic, similar to a bypass function. [illegible] provides a [illegible]-out-of-two trip logic.

~~a second~~

Q 3.3-29

be brought to MODE 3 within ~~the following~~ ~~6~~ hours and MODE 5 within ~~the next~~ ~~30~~ hours

84

54

DC 3.3-Ed

B

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.11 (continued)

DC ALL-001

Trip Interlock~~, and the Frequency is once per RTB cycle. This~~ The ~~18~~ 24 month Frequency is based on operating experience. ~~demonstrating that undetected failure of the P-4 interlock sometimes occurs when the RTB is cycled.~~

The SR is modified by a Note that excludes verification of setpoints during the TADOT. The Function tested has no associated setpoint.

Insert B

DC ALL-002

REFERENCES

1. FSAR, Chapter 6.
2. FSAR, Chapter 7.
3. FSAR, Chapter 15.
4. IEEE-279-1971.
5. 10 CFR 50.49.
6. ~~RTS/ESFAS Setpoint Methodology Study~~ WCAP-11082, Rev. ~~2~~ 5, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Stations - Eagle 21 Version," May 1993 DC ALL-002
7. ~~NUREG-1218, April 1988~~ WCAP-13900, "Extension of Slave Relay Surveillance Test intervals", April 1994
8. WCAP-10271-P-A, Supplement 2, Rev. 1, June 1990.
9. ~~Technical Requirements Manual, Section 15, "Response Times." None.~~ WCAP-13878, "Reliability of Potter & Brumfield MDR Relays", June 1994. DC 3.3-ED
10. WCAP-14117, "Reliability Assessment of Potter and Brumfield MDR Series Relays."
11. **WCAP-13632-P-A, Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements," January 1996.**
12. WCAP-11082, Rev.5, "Westinghouse Setpoint Methodology for Protection Systems, Diablo Canyon Units 1 and 2, 24 Month Fuel Cycle Evaluation," January 1997

DC ALL-002

B

Insert B

SR 3.3.2.12

SR 3.3.2.12 is the performance of an ACTUATION LOGIC TEST as described in TS 1.0 "Definitions." This SR is applied to the RHR Pump Trip on RWST Level-Low actuation logic and relays which are not processed through the SSPS. This test is performed every refueling outage. The frequency is adequate based on site and industry operating experience, considering equipment reliability and history data.

SR 3.3.2.13

SR 3.3.2.~~8~~13 is the performance of a TADOT ~~.~~ for This test is a check of the Manual Actuation Function~~s~~ ~~and~~ AFW ~~pump start on trip of all MFW pumps~~. It is performed every 9 [18] months. Each Manual Actuation Function is tested up to, and including, the master relay coils. In some instances, the test includes actuation of the end device (i.e., pump starts, valve cycles, etc.). The Frequency is adequate, based on industry operating experience and is consistent with the typical refueling cycle. The SR is modified by a Note that excludes verification of setpoints during the TADOT for manual initiation Functions. The manual initiation Functions have no associated setpoints.

BASES

ACTIONS

F.1 and F.2 (continued)

from full power conditions in an orderly manner and without challenging unit systems.

G.1

strike out DC3.3-E2

~~At this unit.~~ Alternate means of monitoring Reactor Vessel Water Level and Containment Area Radiation ~~have been~~ ~~will be~~ developed and ~~tested~~ ~~demonstrated pior to use~~. These alternate means may be temporarily installed if the normal PAM channel cannot be restored to OPERABLE status within the allotted time. If these alternate means are used, the Required Action is not to shut down the unit but rather to follow the directions of Specification 5.6.8, in the Administrative Controls section of the TS. The report provided to the NRC should discuss the alternate means used, describe the degree to which the alternate means are equivalent to the installed PAM channels, justify the areas in which they are not equivalent, and provide a schedule for restoring the normal PAM channels.

~~H.1~~

Q3.3-68

~~If the Required Action and associated Completion Time of Conditions D is not met and Table 3.3.3-1 directs entry into Condition H, the unit must be brought to a MODE where the requirements of this LCO do not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours.~~

~~The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.~~

SURVEILLANCE REQUIREMENTS

A Note has been added to the SR Table to clarify that SR 3.3.3.1 and SR 3.3.3.~~3~~2 apply to each PAM instrumentation Function in Table 3.3.3-1.

SR 3.3.3.1

Performance of the CHANNEL CHECK once every 31 days ensures that a gross instrumentation failure has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus,

(continued)

B 3.3 INSTRUMENTATION

B 3.3.4 Remote Shutdown System

BASES

BACKGROUND

The Remote Shutdown System provides the control room operator with sufficient instrumentation and controls to place and maintain the unit in a safe shutdown condition from a location other than the control room. This capability is necessary to protect against the possibility that the control room becomes inaccessible. A safe shutdown condition is defined as MODE 3. With the unit in MODE 3, the Auxiliary Feedwater (AFW) System and the steam generator (SG) safety valves ~~or the SG atmospheric dump valves (ADVs)~~ can be used to remove core decay heat and meet all safety requirements. The long term supply of water for the AFW System ~~and the ability to borate the Reactor Coolant System (RCS)~~ allows extended operation in MODE 3 until such time that either control is transferred back to the Control Room or a cooldown is initiated from outside the control room. Q3.3.6-1 remove redline

If the control room becomes inaccessible, the operators can establish control at the remote shutdown panel (hot shutdown panel), and place and maintain the unit in MODE 3. Not all controls and necessary transfer switches are located at the ~~remote~~ hot shutdown panel. Some controls and transfer switches will have to be operated locally at the switchgear, motor control panels, or other local stations. The unit automatically reaches MODE 3 following a unit shutdown and can be maintained safely in MODE 3 for an extended period of time.

The OPERABILITY of the following remote shutdown control and instrumentation functions ensures there is sufficient information available on selected unit parameters to place and maintain the unit in MODE 3 should the control room become inaccessible. DC ALL-002

INSERT A DC ALL-002

APPLICABLE SAFETY ANALYSES

The Remote Shutdown ~~System is required to~~ ~~Instrumentation Functions and the hot shutdown panel controls~~ provide equipment at appropriate locations outside the control room with a capability to promptly shut down and maintain the unit in a safe condition in MODE 3. 5.0 Q 3.3-94 DC ALL-002

The criteria governing the design and specific system requirements of the Remote Shutdown ~~System~~ ~~Instrumentation Functions and controls~~ are located in 10 CFR 50, Appendix A, GDC 19 (Ref. 1). 5.0 Q 3.3-94

(continued)

INSERT A (E)

INSTRUMENT/CONTROL FUNCTION	READOUT/CONTROL LOCATION	REQUIRED NUMBER OF CHANNELS
1. Reactor Trip Breaker Indication	Reactor Trip Breaker	1/trip breaker
2. Pressurizer Pressure	Hot Shutdown Panel	1
3. Pressurizer Level	Hot Shutdown Panel	1 DC 3.3-E2
4. Steam Generator Pressure	Hot Shutdown Panel	1/stm. gen.
5. Steam Generator Wide Range Water Level ~~or Auxiliary Feedwater Flow~~ e	Hot Shutdown Panel	1/stm. gen. Q7-10
6. Condensate Storage Tank Water Level	Hot Shutdown Panel	1 DC ALL-002
Remove strikeout		Q7-10
~~7. Auxiliary Feedwater Flow~~	~~Hot Shutdown Panel~~	~~1/stm. gen.~~
7 ~~8.~~ Charging Flow	Hot Shutdown Panel	1
8 ~~9.~~ RCS Loop 1 Temperature Indication	Dedicated Shutdown Panel	Hot and Cold Leg Temperature Indication
9 ~~10.~~ Auxiliary Feedwater Flow Control		
- AFW Pump, and Associated Valves	Hot Shutdown Panel	any 2 of 3 AFW pumps
- Transfer Switches	4kV Switchgear	
10 ~~11.~~ Charging Flow Control		
- Centrifugal Charging Pump	Hot Shutdown Panel	2 of 2 pumps
- Transfer Switch	4kV Switchgear	
11 ~~12.~~ Component Cooling Water Control		
- Component Cooling Water Pump	Hot Shutdown Panel	any 2 of 3 CCW pumps
- Transfer Switch	4kV Switchgear	
12 ~~13.~~ Auxiliary Saltwater Control		
- Auxiliary Saltwater Pump	Hot Shutdown Panel	2 of 2 pumps
- Transfer Switch	4kV Switchgear	
13 ~~14.~~ Emergency Diesel Generator Control		
- EDG Start	EDG Local Control Panel	3 of 3 EDGs

Restore original numbering

DC ALL-002

B 3.3 INSTRUMENTATION

DC 3.3-Ed

B 3.3.6 Containment ~~Purge and~~ Exhaust Ventilation Isolation Instrumentation

BASES

DC 3.3-Ed

BACKGROUND

Containment ~~purge and~~ exhaust ventilation isolation instrumentation closes the containment ventilation isolation valves ~~in the Mini Purge System and the Shutdown Purge System~~. This action in conjunction with a Phase A signal isolates the containment atmosphere from the environment to minimize releases of radioactivity in the event of an accident. The ~~Mini~~ Purge or Vacuum/Pressure Relief System may be in use during reactor operation ~~and the Shutdown Purge System will be in use with the~~ or reactor shutdown.

DC 3.3-Ed

Containment ~~purge and~~ exhaust ventilation isolation initiates on a automatic safety injection (SI) signal through the Containment Isolation – Phase A Function, or by manual actuation of Phase A Isolation. The Bases for LCO 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," discuss these modes of initiation.

(RM 44A AND 44B) Q 3.3-79

~~Four~~ Two radiation monitoring channels are also provided as input to the containment ~~purge and~~ exhaust ventilation isolation. The ~~four~~ two channels measure containment radiation ~~at two locations. One channel is a containment area gamma monitor, and the other three measure radiation in a sample of the containment purge exhaust. The three purge exhaust radiation detectors are of three different types: gaseous, particulate, and iodine monitors. All four~~ in the exhaust duct for fan E-3. Both detectors will respond to ~~most~~ events that release radiation to containment. Both monitors are gaseous activity monitors that will respond to noble gases, particulate and Iodine. The high alarm setpoint is based upon the design basis fuel handling accident source term which does not have a particulate componenet. The actual high alarm setpoint is more than a factor of 500 below the design calculation earliest actuation point. Since the monitors can only be adjusted to one high alarm setpoint and no particulate is expected during a fuel handling accident, a setpoint based on site boundry noble gases is conservative. ~~However, analyses have not been conducted to demonstrate that all credible events will be detected by more than one monitor. Therefore,~~ For the purposes of this LCO the ~~four~~ channels are ~~not considered~~ redundant. ~~Instead, they are treated as four one out of one Functions. Since the purge exhaust monitors constitute a sampling system, various components such as sample line valves, sample line heaters, sample pumps, and filter motors are required to support monitor OPERABILITY.~~

DC 3.3 Ed

~~Each of the purge systems has inner and outer containment isolation valves in its supply and exhaust ducts.~~ A high radiation signal from ~~any one~~ either of the ~~four~~ two channels initiates containment

(continued)

BASES

BACKGROUND (continued)

~~purge~~ ventilation isolation, which closes ~~both inner and outer~~ the containment ventilation isolation valves ~~in the Mini-Purge System and the Shutdown Purge System~~. These systems are described in the Bases for LCO 3.6.3, "Containment Isolation Valves." DC ALL-002

APPLICABLE SAFETY ANALYSES

The safety analyses assume that the containment remains intact with penetrations unnecessary for core cooling isolated early in the event, within approximately 60 seconds. The isolation of the ~~purge~~ containment ventilation valves has not been analyzed mechanistically in the dose calculations, although its ~~rapid~~ isolation, using a conservative isolation time, is assumed following a LOCA. The containment ~~purge and~~ exhaust ventilation isolation radiation monitors act as backup to the SI signal to ensure closing of the ~~purge and~~ exhaust containment ventilation isolation valves. They are also the primary means for automatically isolating containment in the event of a fuel handling accident or any other source within containment during shutdown. Containment isolation in turn ensures meeting the containment leakage rate assumptions of the safety analyses, and ensures that the calculated accidental offsite radiological doses are below 10 CFR 100 (Ref. 1) limits. DC 3.3-Ed DC 3.3-Ed DC ALL-002

The containment ~~purge and~~ exhaust ventilation isolation instrumentation satisfies Criterion 3 of ~~the NRC Policy Statement~~ 10 CFR 50.36(c)(2)(ii). DC 3.3-Ed

LCO

The LCO requirements ensure that the instrumentation necessary to initiate Containment ~~Purge and~~ Exhaust Ventilation Isolation, listed in Table 3.3.6-1, is OPERABLE. DC 3.3-Ed

1. Manual Initiation
~~NOT USED~~ INSERT B 3.3.6 Q 3.3-77

~~The LCO requires two channels OPERABLE. The operator can initiate Containment Purge Isolation at any time by using either of two switches in the control room. Either switch actuates both trains. This action will cause actuation of all components in the same manner as any of the automatic actuation signals.~~

~~The LCO for Manual Initiation ensures the proper amount of redundancy is maintained in the manual actuation circuitry to ensure the operator has manual initiation capability.~~

~~Each channel consists of one push button and the interconnecting wiring to the actuation logic cabinet.~~

(continued)

BASES

LCO (continued)

2. Automatic Actuation Logic and Actuation Relays

The LCO requires two trains of Automatic Actuation Logic and Actuation Relays OPERABLE to ensure that no single random failure can prevent automatic actuation.

Automatic Actuation Logic and Actuation Relays consist of the same features and operate in the same manner as described for ESFAS Function 1.b, SI, and ESFAS Function 3.a, Containment Phase A Isolation. The applicable MODES and specified conditions for the containment ~~purge~~ ventilation isolation portion of these Functions are different and less restrictive than those for their Phase A isolation and SI roles. If one or more of the SI or Phase A isolation Functions becomes inoperable in such a manner that only the Containment ~~Purge~~ Ventilation Isolation Function is affected, the Conditions applicable to their SI and Phase A isolation Functions need not be entered. The less restrictive Actions specified for inoperability of the Containment ~~Purge~~ Ventilation Isolation Functions specify sufficient compensatory measures for this case.

3. Containment Radiation

The LCO specifies ~~four~~ two required channels of radiation monitors to ensure that the radiation monitoring instrumentation necessary to initiate Containment ~~Purge~~ Ventilation Isolation remains OPERABLE in MODES 1-4. The LCO only requires one monitor to be OPERABLE during CORE ALTERATIONS or during movement of irradiated fuel aasemblies in ~~MODES 1-4. The LCO requires only one monitor to be operable during CORE ALTERATIONS or during movement of irradiated fuel~~ MODE 6 containment Q 3.3-79

~~For sampling systems, channel OPERABILITY involves more than OPERABILITY of the channel electronics. OPERABILITY may also require correct valve lineups, sample pump operation, and filter motor operation, as well as detector OPERABILITY, if these supporting features are necessary for trip to occur under the conditions assumed by the safety analyses.~~

4. Containment Isolation - Phase A

Refer to LCO 3.3.2, Function 3.a., for all initiating Functions and requirements.

(continued)

BASES (continued)

APPLICABILITY

The ~~Manual Initiation,~~ Automatic Actuation Logic and Actuation Relays, Containment Isolation - Phase A, and Containment Radiation Functions are required OPERABLE in MODES 1, 2, 3, and 4, and during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment. Under these conditions, the potential exists for an accident that could release fission product radioactivity into containment. Therefore, the containment purge ~~and exhaust~~ ventilation isolation instrumentation must be OPERABLE in these MODES. DC 3.3-Ed

While in MODES 5 and 6 without fuel handling in progress, the containment purge ~~and exhaust~~ ventilation isolation instrumentation need not be OPERABLE since the potential for radioactive releases is minimized and operator action is sufficient to ensure post accident offsite doses are maintained within the limits of Reference 1. DC 3.3-Ed

ACTIONS

The most common cause of channel inoperability is outright failure or drift of the bistable or process module sufficient to exceed the tolerance allowed by unit specific calibration procedures. Typically, the drift is found to be small and results in a delay of actuation rather than a total loss of function. This determination is generally made during the performance of a ~~COT~~CFT and/or Channel Calibration, when the process instrumentation is set up for adjustment to bring it within specification. Drift can also be observed during a Channel Check or CFT and if observed would prompt action to correct the discrepancy. If the Trip Setpoint is less conservative than the tolerance specified by the calibration procedure, the channel must be declared inoperable immediately and the appropriate Condition entered. DC ALL-002

A Note has been added to the ACTIONS to clarify the application of Completion Time rules. The Conditions of this Specification may be entered independently for each Function listed in Table 3.3.6-1. The Completion Time(s) of the inoperable channel(s)/train(s) of a Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

A.1

Condition A applies to the failure of one containment ~~purge~~ ventilation isolation radiation monitor channel. ~~Since the four containment radiation monitors measure different parameters,~~

(continued)

BASES

ACTIONS

A.1 (continued)

~~failure of a single channel may result in loss of the radiation monitoring Function for certain events. Consequently, the failed channel must be restored to OPERABLE status.~~ The 4 hours allowed to restore the affected channel is justified by the low likelihood of events occurring during this interval, and recognition that ~~one or more of~~ the remaining channel~~s~~ will respond ~~to most events~~.

A Note has been added to state that Condition A is only applicable in MODE 1, 2, 3, or 4.

B.1

DC 3.3 Ed

Condition B applies to all Containment ~~Purge and~~ Exhaust Ventilation Isolation Functions and addresses the train orientation of the Solid State Protection System (SSPS) and the master and slave relays for these Functions. It also addresses the failure of ~~multiple~~both radiation monitoring channels, or the inability to restore a single failed channel to OPERABLE status in the time allowed for Required Action A.1.

If a train is inoperable, ~~multiple~~ both radiation channels are inoperable, or the Required Action and associated Completion Time of Condition A are not met, operation may continue as long as the Required Action for the applicable Conditions of LCO 3.6.3 is met for each valve made inoperable by failure of isolation instrumentation.

A Note is added stating that Condition B is only applicable in MODE 1, 2, 3, or 4.

C.1 and C.2

DC 3.3 Ed

Condition C applies to all Containment Purge and Exhaust Ventilation Isolation Functions and addresses the train orientation of the SSPS and the master and slave relays for these Functions. It also addresses the ~~failure of multiple~~condition of no OPERABLE radiation monitoring channels~~, or the inability to restore a single failed channel to OPERABLE status in the time allowed for Required Action A.1.~~ If a train is inoperable, ~~multiple channels are inoperable,~~ or the ~~Required Action and associated Completion Time of Condition A are not met~~required radiation monitor is inoperable, operation may continue as long as the Required Action to place and maintain containment ~~purge and~~ exhaust ventilation isolation DC 3.3 Ed

(continued)

BASES

ACTIONS

C.1 and C.2 (continued)

valves (RCV-11, 12, FCV 660, 661, 662, 663, 664) in their closed position is met or the applicable Conditions of LCO 3.9.4. "Containment Penetrations," are met for each valve made inoperable by failure of isolation instrumentation. The Completion Time for these Required Actions is Immediately.

A Note states that Condition C is applicable during CORE ALTERATIONS and during movement of irradiated fuel assemblies within containment.

SURVEILLANCE REQUIREMENTS

Two ~~A~~ Notes ~~has~~ have been added to the SR Table ~~to clarify~~ The first note clarifies that Table 3.3.6-1 determines which SRs, other than ESF CVI RESPONSE TIME verification, apply to which Containment Purge and Exhaust Ventilation Isolation Functions. The second note states that the ESFAS CVI RESPONSE TIME verification is specified in SR 3.3.6.8. ① 3.3-55 DC 3.3-Ed

SR 3.3.6.1

Performance of the CHANNEL CHECK once every 12 hours ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including indication and readability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit.

The Frequency is based on operating experience that demonstrates channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.6.1 (continued)

channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.6.2

SR 3.3.6.2 is the performance of an ACTUATION LOGIC TEST. The train being tested is placed in the bypass condition, thus preventing inadvertent actuation. Through the semiautomatic tester, all possible logic combinations, with and without applicable permissives, are tested for each protection function. In addition, the master relay coil is pulse tested for continuity. This verifies that the logic modules are OPERABLE and there is an intact voltage signal path to the master relay coils. This test is performed every 31 days on a STAGGERED TEST BASIS. The Surveillance interval is acceptable based on instrument reliability and industry operating experience.

SR 3.3.6.3

SR 3.3.6.3 is the performance of a MASTER RELAY TEST. The MASTER RELAY TEST is the energizing of the master relay, verifying contact operation and a low voltage continuity check of the slave relay coil. Upon master relay contact operation, a low voltage is injected to the slave relay coil. This voltage is insufficient to pick up the slave relay, but large enough to demonstrate signal path continuity. This test is performed every 31 days on a STAGGERED TEST BASIS. The Surveillance interval is acceptable based on instrument reliability and industry operating experience.

SR 3.3.6.4

A ~~COT~~CFT is performed every 92 days on each required channel to ensure the entire channel will perform the intended Function. The Frequency is based on the staff recommendation for increasing the availability of radiation monitors according to NUREG-1366 (Ref. 2). This test verifies the capability of the instrumentation to provide the containment purge and exhaust system isolation. ~~The~~

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.6.4 (continued)

~~setpoint shall be left consistent with the current unit specific calibration procedure tolerance.~~

SR 3.3.6.5

SR 3.3.6.5 is the performance of a SLAVE RELAY TEST. The SLAVE RELAY TEST is the energizing of the slave relays. Contact operation is verified in one of two ways. Actuation equipment that may be operated in the design mitigation mode is either allowed to function or is placed in a condition where the relay contact operation can be verified without operation of the equipment. Actuation equipment that may not be operated in the design mitigation mode is prevented from operation by the SLAVE RELAY TEST circuit. For this latter case, contact operation is verified by a continuity check of the circuit containing the slave relay. This test is performed every ~~[~~92~~]~~ days. The Frequency is acceptable based on instrument reliability and industry operating experience.

SR 3.3.6.6

SR .8 DC 3.3-Ed

There is no manual actuation of CVI except via phase A or B. This testing is performed as part of SR 3.3.2.8.
~~SR 3.3.6.6 is the performance of a TADOT. This test is a check of the Manual Actuation Functions and is performed every [18] months. Each Manual Actuation Function is tested up to, and including, the master relay coils. In some instances, the test includes actuation of the end device (i.e., pump starts, valve cycles, etc.).~~

~~The test also includes trip devices that provide actuation signals directly to the SSPS, bypassing the analog process control equipment. The SR is modified by a Note that excludes verification of setpoints during the TADOT. The Functions tested have no setpoints associated with them.~~

~~The Frequency is based on the known reliability of the Function and the redundancy available, and has been shown to be acceptable through operating experience.~~

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.6.7

A CHANNEL CALIBRATION is performed every ~~[18]~~ 24 months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy. (DC ALL-005)

The Frequency is based on operating experience and is consistent with the typical industry refueling cycle.

SR 3.3.6.8

This SR assures that the individual channel RESPONSE TIMES are less than or equal to the maximum values assumed in the accident analysis. Response Time testing acceptance criteria are included in the FSAR. Individual component response times are not modeled in the analyses. The analyses model the overall or elapsed time, from the point at which the parameter exceeds the Trip Setpoint value at the sensor, to the point at which the equipment in both trains reaches the required functional state (e.g., valves in full closed position). The response time may be measured by a series of overlapping tests such that the entire response time is measured.

(DC ALL-005)

RESPONSE TIME tests are conducted on an ~~18~~ 24 month STAGGERED TEST BASIS. Testing of the final actuation devices, which make up the bulk of the response time, is included in the testing of each channel. The final actuation device in one train is tested with each channel. Therefore, staggered testing results in response time verification of these devices every ~~18~~ months. The ~~18~~ month Frequency is consistent with the typical refueling cycle and is based on unit operating experience, which shows that random failures of instrumentation components causing serious response time degradation, but not channel failure, are infrequent occurrences.

REFERENCES

1. 10 CFR 100.11.

2. NUREG-1366, December 1992.

B 3.3 INSTRUMENTATION

B 3.3.7 Control Room ~~Emergency Filtration~~ Ventilation System (~~CREFS~~ CRVS) Actuation Instrumentation

BASES

BACKGROUND

The ~~CREFS~~ CRVS provides an enclosed control room environment from which ~~the~~both units can be operated following an uncontrolled release of radioactivity. ~~During normal operation, the Auxiliary Building Ventilation System provides control room ventilation.~~ Upon receipt of an actuation signal, the ~~CREFS~~ CRVS shifts from normal operation and initiates filtered ventilation and pressurization of the control room. This system is described in the Bases for LCO 3.7.10, "Control Room ~~Emergency Filtration~~ Ventilation System~~.~~" and is common to both units.

The actuation instrumentation consists of redundant radiation monitors in the air intakes ~~and~~ to the control room areas. There are two detectors in each of the two normal control room air intakes. However, since they take suction form a common area, the North and South sides of the mechanical equipment room, only two detectors are required to provide protection against a single failure. A Phase "A" containment isolation signal or a high radiation signal from ~~any~~either of these required detectors in the normal intake will initiate ~~both trains of the CREFS~~ CRVS pressurization from the pressurization intake with the lowest radiation level (each pressurization intake, one on the North end of the turbine building and one on the South, has two radiation monitors). The control room operator can also initiate ~~CREFS~~ CRVS pressurization ~~trains~~ by manual switches in the control room. ~~The CREFS is also actuated by a safety injection (SI) signal. The SI Function is discussed in LCO 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation."~~

INSERT B 3.3.7(3)

INSERT B 3.3.7(1)

Q 3.3-08

The CRVS has two additional manually selected emergency operating modes; smoke removal and recirculation. Neither of these modes are required for the CRVS to be OPERABLE, but they are useful for certain non-DBA circumstances.

DC 3.3-Ed

DC ALL-002

APPLICABLE SAFETY ANALYSES

The control room must be kept habitable for the operators stationed there during accident recovery and post accident operations.

The ~~CREFS~~ CRVS acts to terminate the supply of unfiltered outside air to the control room, initiate filtration, and pressurize the control room. These actions are necessary to ensure the control room is kept habitable for the operators stationed there during accident recovery and post accident operations by minimizing the radiation exposure of control room personnel.

(continued)

BASES

In MODES 1, 2, 3, and 4, the radiation monitor actuation of the ~~CREFS~~ CRVS is a backup for the ~~SI~~ Phase A signal actuation. This ensures initiation of the ~~CREFS~~ CRVS during a loss of coolant ~~an~~ e accident or steam generator tube rupture involving a release of radioactive materials. DC ALL-002

The radiation monitor actuation of the ~~CREFS~~ CRVS in MODES 5 and 6, during movement of irradiated fuel assemblies ~~[, and~~ e DC 3.3-Ed

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

~~CORE ALTERATIONS~~), is the primary means to ensure control room habitability in the event of a fuel handling or waste gas decay tank rupture accident. The ~~CREFS~~ CRVS pressurization system actuation instrumentation satisfies Criterion 3 ~~of the NRC Policy Statement~~10 CFR 50.36(c)(2)(ii).

Remove Strike out

DC ALL-002

LCO

The LCO requirements ensure that instrumentation necessary to initiate the ~~CREFS~~ CRVS pressurization system is OPERABLE.

1. Manual Initiation

Remove strike out

DC ALL-002

The LCO requires two channels OPERABLE. The operator can initiate the ~~CREFS~~ CRVS pressurization mode at any time by using ~~either of~~ two switches in the control room. This action will cause actuation of all components in the same manner as any of the automatic actuation signals.

The LCO for Manual Initiation ensures the proper amount of redundancy is maintained in the manual actuation circuitry to ensure the operator has manual initiation capability.

~~Each channel consists of one push button and the interconnecting wiring to the actuation logic cabinet.~~

2. Automatic Actuation ~~Logic and Actuation~~ Relays

Q 3-08

The LCO requires two trains of Actuation ~~Logic and~~ Relays OPERABLE to ensure that no single random failure can prevent automatic actuation of the pressurization system.

~~Automatic Actuation Logic and Actuation Relays consist of the same features and operate in the same manner as described for ESFAS Function 1.b., SI, in LCO 3.3.2. The applicable MODES and specified conditions for the CREFS portion of these functions are different and less restrictive than those specified for their SI roles. If one or more of the SI functions becomes inoperable in such a manner that only the CREFS function is affected, the Conditions applicable to their SI function need not be entered. The less~~

DC 3.3-Ed

CRVS

Remove Strike out

Retain strike out

INSERT B 3.3.7(2)

Q 3-08

or Phase A

OR Phase A

S

(continued)

BASES

ACTIONS (continued)

D.1 and D.2

Condition D applies when the Required Action and associated Completion Time for Condition A or B have not been met ~~{during CORE ALTERATIONS or}~~ when irradiated fuel assemblies are being moved. Movement of irradiated fuel assemblies ~~{and CORE ALTERATIONS}~~ must be suspended immediately to reduce the risk of accidents that would require CREFS actuation.

E.1

Condition E applies when the Required Action and associated Completion Time for Condition A or B have not been met in MODE 5 or 6. Actions must be initiated to restore the inoperable train(s) to OPERABLE status immediately to ensure adequate isolation capability in the event of a waste gas decay tank rupture.

SURVEILLANCE REQUIREMENTS

A Note has been added to the SR Table to clarify that Table 3.3.7-1 determines which SRs apply to which ~~CREFS~~ CRVS Actuation Functions. DC 3.3-8D

SR 3.3.7.1

Performance of the CHANNEL CHECK once every 12 hours ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.7.6 (continued)

TADOT. The Functions tested have no setpoints associated with them.

SR 3.3.7.7

A CHANNEL CALIBRATION is performed every ~~[18]~~ months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy.

The Frequency is based on operating experience and is consistent with the typical industry refueling cycle.

REFERENCES

DC 3.3-Ed

~~None.~~ 1. WCAP-13878, "Reliability of Potter & Brumfield MDR Relays", June 1994.

2. WCAP-13900, "Extension of Slave Relay Surveillance Test Intervals", April 1994.

CHANGE NUMBER | JUSTIFICATION

Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).

3.3-10 ~~[The Overtemperature ΔT setpoint equation had a bracket in the wrong place and was corrected. The OTΔT equation in NUREG-1431 Note 1 shows the lead-lag compensation associated with the term $(1 + \tau_1S)/(1 + \tau_2S)$ (note that CN 3.3-13 revised the tau subscripts per CTS) to be applicable to the T' term. This is incorrect. This error can also be found in Revision 4a of NUREG-0452. This error apparently was taken from Section A-3 and Figure A-1 of WCAP-8745-P and WCAP-8746 as well as from Figure 6.1-4 of WCAP-7907-P-A, "LOFTRAN Code Description," April 1984. The latter reference has been corrected in Figure 6.1-4 of WCAP-7878, "LOFTRAN Code Description and User's Manual," Revision 5, November 1989. The lead-lag compensation applies only to the measured T_{avg}. This is consistent with the manner in which the electronics have always processed the OTΔT setpoint signal, as depicted on Westinghouse drawing 8756D37 sheets 7-10 described in FSAR Section 7.2]. Another change needed for the Overtemperature ΔT setpoint equation concerns the inequality sign for the K_2 term. As defined in NUREG-1431, this term has a "≥" sign. In this case, the Overtemperature ΔT setpoint would be conservatively decreased if T_{avg} were increasing above [576.6°F for Unit 1 and 577.6°F for Unit 2], i.e. with (T-T') a positive value. However, if T_{avg} were decreasing below [576.6°F or 577.6°F, for the respective Units,] such that (T-T') is a negative value, the ≥ sign could result in an unwanted increase in the Overtemperature ΔT setpoint. Therefore, the inequality sign for K_2 is changed to an equal sign, consistent with the current TS. This issue is avoided in the construct of the Overtemperature ΔT setpoint by setting K_5 and K_6 to zero for decreasing T_{avg}, i.e. K_5 and K_6 are conditionally defined. In addition, the f_1 (ΔI) penalty function was corrected to reflect correct decimal point placement and to ensure a reduction in the setpoint if $(q_t - q_b)$ is outside the deadband. The f_1 (ΔI) value must be positive such that it lowers the setpoint when subtracted. The inequality signs around the deadband were corrected to reflect a zero penalty when $(q_t - q_b)$ is within the deadband. Decimal point placement corrections have been made to recognize that the penalty function gains have units of (°F or % ΔT span per % RTP).~~ Q 2-65(2.0)

3.3-11 Added "or all rods fully inserted and ~~Rod Control System~~ incapable of rod withdrawal," which makes Note (f) the complete antithesis of Note (b). D 3.3-Ed

3.3-12 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-13 The equations for Overtemperature ΔT and Overpower ΔT are revised to be consistent with the CTS. The value of the time constant τ_6 has always been 0 seconds and the factor utilizing this time constant has not been shown as part of the Overtemperature ΔT equation in licensing documents since the factor value has been unity. Thus, the factor utilizing this time constant has been deleted.

3.3-14 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-15 The CHANNEL CHECK surveillance (SR 3.3.2.1) is deleted from the P-11 [ ] interlock because CHANNEL CHECKS are not applicable for permissive functions. This change is consistent with the current TS.

3.3-16 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-17 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-18 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-19 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

And 3.3.1 Table 4.3-1 functional unit 21

CHANGE NUMBER	JUSTIFICATION
3.3-20	Not used. ~~This change adds note 2 on [Containment Radiation Level (High Range)] calibration in ITS SR [3.3.3.2] to be consistent with current TS Table [4.3-7 Note (2)]. This note is acceptable as it reflects the unique calibration requirements of these high range radiation monitors as defined in the current TS.~~ Q 3.3-20
3.3-21	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B). DC 3.3-Ed
3.3-22	Consistent with CTS [3.3.3.5], [~~RCP breaker indication is excluded from CHANNEL CHECKS and reactor trip breaker and~~ RCP breaker indications are excluded from] CHANNEL CALIBRATIONS in ITS SR 3.3.4.3 since these SRs have no meaning for ~~[these]~~ this function~~s~~. Q 3.3-22 DC ALL-002
3.3-23	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-24	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-25	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-26	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-27	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-28	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-29	~~{Not used}~~ 3.3-29 INSERT DC ALL-002
3.3-30	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-31	The current TS require the response times associated with the ~~[undervoltage and degraded voltage diesel generator start functions and the]~~ containment [purge and exhaust] isolation functions to be verified against the specific response time values contained in the ~~[FSAR]~~ CTS. The ITS is revised to match the current TS and the response time values are [moved to the FSAR per CN 01-35-LG]. As is done with the Reactor Trip System and the ESFAS instrumentation, this method is an appropriate way to control response times. [~~SR 3.3.5.4 and~~ SR 3.3.6.8] are added to require the response time verifications. DC ALL-002 DC 3.3-Ed DC ALL-002
3.3-32	Improved TS [3.3.6 ACTION A is modified by a Note and] Table 3.3.6-1 is changed to be consistent with current TS [3.3.2 Functional Unit 3.c and current TS 3.9.9]. Subfunctions [b, c and d] of Containment Radiation are stricken since only the gaseous [ ] channel provides the actuation function [and the bracketed setpoint is changed to reflect plant-specific requirements]. [The number of gaseous monitors required for CORE ALTERATIONS or during movement of irradiated fuel has been revised to one (either RM 44A or B) per the CTS].
3.3-33	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-34	This change adds an LCO 3.0.3 exception Note 1 to ITS 3.3.8 to reflect ~~Industry Traveler TSTF-36, Rev. 2.~~ current TS [3.3.3.1 ACTION c. and 3.9.1.2 ACTION c]. Q 3.3-34
3.3-35	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-36	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

(B)

3.3-29 INSERT:

Functional unit 7 is revised per the DCPP current plant design to incorporate the residual heat removal (RHR) pump trip from low refueling water storage tank (RWST) level. Action K is revised and a new SR 3.3.2.12 is added. LAR 97-10 was submitted July 30, 1997 to incorporate these changes into the CTS.

Not Applicable to DCPP. See Conversion Comparision Table (Enclosure 6B)

DC 3.3-004

CHANGE NUMBER	JUSTIFICATION	
3.3-109	~~Not used.~~ INSERT 3.3-109	Q 8-11
3.3-110	~~Not used.~~ INSERT 3.3-110	DCALL-005
3.3-111	~~This change adds a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the current TS and is an enhancement which is easily performed and provides additional assurance that the interlocks are functioning correctly.~~	DC 3.3-004
3.3-112	~~Not used.~~ INSERT 3.3-112	Q 12-05(3.6)
3.3-113	~~Not used.~~ INSERT 3.3-113	Q 2-05(2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114	Q 3.3-66
3.3-115	Not used.	
3.3-116	ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps. The function exists, but is not credited in any accident analysis and is not part of ESFAS Function 6 in the CTS.	
3.3-117	This change to ITS 3.3.1 Condition R reflects current TS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.	
3.3-118	This change is for consistency with ITS 3.7.10 Condition [G].	
3.3-119	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-120	~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.~~ Not used.	Q 3.3-120
3.3-121	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-122	ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring the RTBs to be opened with ACTIONS that ensure subcriticality is maintained (i.e., by initiating action to fully inserting all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135.	TR 3.3-006
3.3-123	This change deletes ACTION L.2 and renumbers L.3 since the requirement to close the unborated water source valves is not in the CTS and is not part of the current licensing basis. This new requirement is not applicable to DCPP which has a licensed dilution accident evaluation (refer to License Amendment 28/27). The current licensing bases in accordance with NUREG 0800, Section 15.4.6 provides adequate assurance that a dilution event will be recognized and arrested in a timely fashion.	DC 3.3-Ed
3.3-124	Consistent with the current TS Table 4.3-1, Note [15], the note for ITS SR 3.3.1.4 is modified, a note is added to Table 3.3.1-1, and Function 20 are modified to clarify that the SR is required for the reactor trip bypass breaker local manual shunt trip only. The Bases for SR 3.3.1.14 clearly state that SR 3.3.1.14 includes the automatic undervoltage trip of the reactor trip bypass breakers. The Note (k) added to Table 3.3.1-1, Function 20 clarifies the Applicability of the undervoltage and shunt trip mechanisms to include those functions of the reactor trip bypass breakers when in use.	

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC ALL-001 and DC ALL-002 **APPLICABILITY:** DC

REQUEST:

An errata to LAR 97-09 was submitted to the NRC January 9, 1998, in DCL-98-003. Errata changes on pages affected by NRC comment numbers are indicated with "DC-ALL-002." Errata changes that dealt with issuance of LAs 119/117 and 118/116 (issued 7/13/97) that addressed CTS surveillance interval increases due to 24-month fuel cycles are indicated with "DC-ALL-001."

ATTACHED PAGES:

See notations on applicable pages for each comment number.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC ALL-003 **APPLICABILITY:** DC

REQUEST:

Diablo Canyon submitted the ITS conversion LAR two weeks after the other FLOG members. Technical reviews were being finalized which resulted in changes to Enclosures 4, 6A and 6B. These changes were identified with "{ }" to ensure the difference between the other FLOG members was noted.

ATTACHED PAGES:

Encl. 4	16
Encl. 6A	6, 10
Encl. 6B	11, 21

NSHC LS1
(continued)

DCPP DC ALL-002

testing requirements for those other sensors. The specific sensors installed at [~~Callaway~~] and that require RTT are listed below:

- Steam Generator Water Level	Rosemount/Model 1154
- Pressurizer Pressure	Rosemount/Model 1154
- Steamline Pressure	Barton/Model 763 and Rosemount/Model 1154
- Containment Pressure	Rosemount/Model 1154
- Reactor Coolant Flow	Rosemount/Model 1154

The basis for eliminating periodic response time testing for each sensor is discussed in the WCAP and/or the EPRI report. These reports provide justification that any sensor failure that significantly degrades response time will be detectable during surveillance testing such as calibration and channel checks.

The applicability of the generic analysis of WCAP-13632-P-A Revision 2 has been confirmed for [DCPP]. Each of the above transmitters is included in Table 9-1 of WCAP-13632. In addition, the following discussion addresses the four actions raised in the NRC SER dated September 5, 1995:

(a) A hydraulic response time test will be performed on any new or refurbished transmitter, prior to declaring the affected channel operable, to determine an initial sensor-specific response time value.

(b) A hydraulic response time test will be performed on units that use capillary tubes after initial installation of replacement transmitters or following any maintenance or modification activity that could damage the capillary tubing or degrade the response time characteristics of installed sensors.

(c) [DCPP] does not utilize pressure sensors that incorporate a variable damping feature in the RTS or ESFAS channels that are required to have their response times verified.

(d) [~~[~~DCPP has established an enhanced monitoring program for those Rosemount transmitters that require monitoring per NRC Bulletin 90-01 and Supplement 1. Some of those transmitters are RTS or ESFAS transmitters that require RTT. These transmitters will remain in the enhanced monitoring program until they are replaced or the alternative method of performing periodic drift monitoring as described below is initiated: DC ALL-003

1. Ensure that operators and technicians are aware of the Rosemount transmitter loss of fill-oil issue and make provisions to ensure that technicians monitor for for sensor response time degradation during the performance of calibrations and functional tests of these transmitters, and

2. Review and revise surveillance testing procedures, if necessary to ensure that calibrations are being performed using equipment designed to provide a step function or fast ramp in the process variable and that allows simultaneous monitoring of both the input and output response of the transmitter under test. Thus allowing, with reasonable assurance, the recognition of significant response time degradation~~]~~ .] DC ALL-003

Based on these results, the Technical Specifications are revised to indicate that the system response time shall be verified utilizing a sensor response time justified by the methodology described in WCAP-13632-P-A Revision 2. Allocations for sensor response times may be obtained from: (1) historical records based on acceptable response time tests (hydraulic, noise, or power interrupt tests), (2) inplace, onsite, or offsite (e.g. vendor) test measurements, or (3) utilizing vendor engineering specifications.

CHANGE NUMBER	JUSTIFICATION
	Not used.
3.3-68	~~A Note is added to state that CONDITION D is only applicable in MODES 1 and 2. A new CONDITION H is added to require entering MODE 3 if CONDITION B is not met when entered due to not meeting CONDITION D. These changes are per the CTS.~~ Q 3.3-68
3.3-69	The phrase "...that is ~~not~~ normally energized" is deleted per the CTS. All of the instrumentation listed is normally energized at power. CA 3.3-012 DC ALL-003
3.3-70	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-71	This change revises Table 3.3.3-1 per the reviewers note to update CTS PAM instruments per the requirements of Reg. Guide 1.97.
3.3-72	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-73	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-74	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-75	The CHANNEL FUNCTIONAL TEST is substituted for the COT per current licensing basis.
3.3-76	Consistent with the current design and TS, a Trip Actuating Device Operational Test (TADOT) is not required for any of the functions explicitly listed in Table 3.3.6-1; therefore, the associated Surveillance Requirement is deleted. Note that a TADOT is required in accordance with LCO 3.3.2 for functions 3.a.1 and 2.a, as referenced in the Table.
3.3-77	Containment Vent Isolation is initiated by the ESFAS Phase "A" isolation signals. As such, the number of required channels and required surveillances for the manual initiation of Containment Vent Isolation are captured by the requirements for Phase "A" isolation in the ESFAS tables. INSERT 3.3-77 Q 3.3-77
3.3-78	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-79	This change adds APPLICABILITY columns to ITS Tables 3.3.6-1 and 3.3.7-1 to reflect current TS with varying Functional Applicabilities. This change is consistent with the format used for the RTS and ESFAS instrumentation in the ITS and is a clearer method to present varying Applicabilities from the current TS. These changes are administrative format changes that insert the Applicabilities from the current TS into Tables 3.3.6-1 and 3.3.7-1. This change is consistent with travelerTSTF-161. INSERT 3.3-79 Q 3.3-79
3.3-80	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-81	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-82	The CONDITIONS, REQUIRED ACTIONS, etc. are revised per the current licensing basis. The plant FBACS does not perform any accident mitigation functions except during the fuel handling accident
3.3-83	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-84	The Note of SR 3.3.4.4 is deleted since Table 3.3.4-1 does not have a neutron detector specified per the current TS.
3.3-85	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

CHANGE NUMBER	JUSTIFICATION
3.3-125	ITS SR 3.3.1.11 is modified by a Note that requires verification that the time constants are adjusted to the prescribed values. The addition of this Note is consistent with SR 3.3.1.10 and is required because SR 3.3.1.11 is used for the Power Range Neutron Flux - High Positive Rate [and High Negative Rate] trip functions which have a time constant associated with their calibration.
3.3-126	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-127	The MODE 2 applicability for the undervoltage RCP start of the steam-driven AFW pump is deleted and the surveillance Frequency is revised per the DCPP CTS. Thus, the Required Actions of ACTION I are revised to include entering MODE 2 for function 6.g and MODE 3 for function 5.b. ~~and~~ The required surveillance is changed from SR 3.3.2.7 to SR 3.3.2.8 for Function 6.g. This anticipatory start of the steam-driven AFW pump is not credited for MODE 2 operation, only the SG low level start signal is used for MODE 2 or 3.
3.3-128	This change revises ITS Table 3.3.4-1 to be consistent with CTS 3.3.3.5.
3.3-129	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-130	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-131	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-132	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-133	This change revises ITS LCO 3.3.5 and SR 3.3.5.3 to include the DG start sequence delay timers from CTS Table 3.3-4.
3.3-134	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-135	A MODE change restriction has been added to ITS 3.3.1 Condition C per the matrix discussed in CN 1-02-LS-1 of the 3.0 package (see LS-1 NSHC in the CTS Section 3/4.0, ITS Section 3.0 package).
3.3-136	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-137	The Condition for Function 4.c is changed from Condition D to E consistent with the CTS. ~~Plant design requires~~ this Function to be bypassed, not tripped if inoperable. Insert 3.3-137

since the trip is bypassed below P-7

Q 2-08

Q 3.3-127

the previously NOT USED ACTION J is created to include entering

DC ALL-003

INSERT 6A table

Q 3-LS GEN

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER*	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-65	A Note is added to the steam generator water level - high-high trip function to reflect the CPSES design and CTS. In the CPSES design, only three channels of the four steam generator water level signals provide input to this trip function. Therefore, in order to satisfy the single failure criterion, if one of these three channels is used as input to the Steam Generator Water Level Control System, its associated bistable must be placed in the tripped state.	No	Yes	No	No
3.3-66	The DCPP-specific MODE 4 requirement of the CTS is retained and added to Table 3.3.2-1 for SI actuated by Containment Pressure High-High, Containment Pressure High. INSERT 3.3-66(b)	Yes	No	No	No CA 3.3-012
3.3-67	In PAMS, add CPSES-specific operability requirements and Required Actions for the T-hot and T-cold indications consistent with both the current licensing basis and the intent of NUREG-1431. If a T-hot indication is unavailable, equivalent information is available from the Core Exit Temperature indication which is also a RG 1.97 variable. Similarly, if a T-cold indication is unavailable, equivalent information may be derived through the use of the steam generator pressure and steam tables, because the RCS cold leg temperature closely follows the steam generator saturation temperature.	No	Yes	No	No
3.3-68 Not used.	~~A DCPP-specific Note is added to state that CONDITION D is only applicable in MODES 1 and 2. A new CONDITION H is added to require entering MODE 3 if CONDITION B is not met when entered due to not meeting CONDITION D.~~	~~Yes~~ NA	~~No~~ NA	~~No~~ NA	~~No~~ NA Q 3.3-68 DC ALL-003
3.3-69	~~T~~he phrase "...that is ~~not~~ normally energized" is deleted per the CTS. All of the instrumentation listed is normally energized at power.	Yes	No adopted ITS format.	No adopted ITS format	No adopted ITS format CA 3.3-012
3.3-70	The PAM instrumentation list is modified to reflect the CPSES design and CTS.	No, see CN 3.3-71.	Yes	No, see CN 3.3-21.	No, see CN 3.3-21.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-131	ITS 3.3.5 Condition B is replaced with new Conditions B, C, D, and E. Condition C in the ISTS is changed to Condition F. The CPSES CTS have specific actions for the various bus undervoltage and degraded voltage function. These actions allow an appropriate amount of time to restore an inoperable channel or declare the associated power source or bus inoperable and take action to isolate an inoperable power source. These actions are a proper way to respond to the inoperable channels because the actions result in taking the Required Actions in ITS 3.8 associated with the affected power source or bus. The new Conditions match the Actions of the CTS.	No	Yes	No	No
3.3-132	The trip setpoints for the loss of power diesel generator start instrumentation are relocated to a licensee controlled document. This approach is consistent with a format allowed by a reviewer's note for the RTS and ESFAS instrumentation.	No -adopted ITS format.	Yes	No, adopted ITS format.	No, adopted ITS format.
3.3-133	This change revises ITS LCO 3.3.5 and SR 3.3.5.3 to include the DG start sequence delay timers from DCPP CTS Table 3.3-4.	Yes	No	No	No
3.3-134	This change is Wolf Creek specific to revise the NOTE in Condition K of ITS 3.3.2 consistent with CTS Table 3.3-3 Action ~~18~~ 30 for Function 7b ~~and Amendment 43 to provide 4 hours foran additional channel to be placed in bypass for surveillance testing of other channels~~.	No	No	Yes	No WC 3.3-018
3.3-135	A MODE change restriction has been added per the matrix discussed in CN 1-02-LS-1 of the ITS 3.0 package.	Yes	Yes	Yes	Yes
3.3-136	The TADOT perfromed under ITS SR 3.3.2.7 includes verification of relay setpoints since the trip actuating devices being tested are the same circuits tested under ITS SR 3.3.5.2.	No, adopted ISTS format.	No, adopted ISTS format.	Yes	Yes
3.3-137	The Condition for Function 4.c is changed from Condition D to E consistent with the DCPP CTS.	Yes	No	No	No DC ALL 003

INSERT GB Table

Q 3-LS GEN

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC ALL-004 **APPLICABILITY:** DC

REQUEST:

Revise ITS and CTS to incorporate changes due to issuance of LAs 120/118 dated February 3, 1998 which, among others, relocated three section 3.3 CTS to licensee controlled documents. This resulted in CTS LCO 3.3.3.3, 3.3.3.7 and 3.3.4.1 being relocated to ECGs.

ATTACHED PAGES:

Encl. 2	3/4 3-41, 3/4 3-42, 3/4 3-43, 3/4 3-54, 3/4 3-60
Encl. 3A	20 & 22
Encl. 3B	26 & 31

DC ALL-004

~~05-01-R~~

INSTRUMENTATION

~~SEISMIC INSTRUMENTATION~~

~~LIMITING CONDITION FOR OPERATION~~

~~3.3.3.3 The seismic monitoring instrumentation# shown in Table 3.3-7 shall be OPERABLE.~~

~~APPLICABILITY: At all times.~~

~~ACTION:~~

~~a. With one or more seismic monitoring instruments inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the instrument(s) to OPERABLE status.~~

~~b. The provisions of Specification 3.0.3 are not applicable.~~

~~SURVEILLANCE REQUIREMENTS~~

~~4.3.3.3.1 Each of the above seismic monitoring instruments shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST at the frequencies shown in Table 4.3-4.~~

~~4.3.3.3.2 Each of the above seismic monitoring instruments actuated during a seismic event shall be restored to OPERABLE status within 24 hours and a CHANNEL CALIBRATION, as applicable, performed within 10 days following the seismic event. Data shall be retrieved from actuated instruments and analyzed to determine the magnitude of the vibratory ground motion. A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 14 days describing the magnitude, frequency spectrum and resultant effect upon facility features important to safety.~~

~~#The seismic monitoring instrumentation is common to both units but located in Unit 1 or common areas.~~

DC ALL-004

~~05-01-R~~

TABLE 3.3-7

SEISMIC MONITORING INSTRUMENTATION

INSTRUMENTS AND SENSOR LOCATIONS	MEASUREMENT RANGE	MINIMUM INSTRUMENTS OPERABLE
1. Triaxial Time-History Accelographs		
a. Containment Base Slab, El 89, 180°	± 1g	1*
b. Top Unit 1 Containment, El 303.5, 225°	± 2g	1
c. Aux Building, El 64	± 1g	1
2. Triaxial Peak Accelographs		
a. Containment Base Slab, El 89, 180°	± 2g	1
b. Top Unit 1 Containment, El 303.5, 225°	± 5g	1
c. Intake near ASW Pump 1-2 Bay, El 2	± 2g	1
d. Turbine Building, El 85, Machine Shop	± 2g	1
e. Aux Building, El 140, Hot Shop	± 2g	1
f. Aux Building, El 140, Near Control Room Door	± 2g	1
3. Triaxial Response-Spectrum Recorders		
Containment Base Slab, El 89, 180°	1.6 - 90 g 2-25.4 Hz	1

* With reactor control room indications or annunciation.

DC AU-004

05-01-R

TABLE 4.3-4

SEISMIC MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENTS AND SENSOR LOCATIONS	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST
1. Triaxial Time-History Accelographs			
a. Containment Base Slab, El 89, 180°***	M*	R	SA
b. Top Unit 1 Containment, El 303.5, 225°	M*	R	SA
c. Aux Building, El 64	M*	R	SA
2. Triaxial Peak Accelographs			
a. Containment Base Slab, El 89, 180°	N.A.	R***	N.A.
b. Top Unit 1 Containment, El 303.5, 225°	N.A.	R***	N.A.
c. Intake near ASW Pump 1-2 Bay, El 2	N.A.	R***	N.A.
d. Turbine Building, El 85, Machine Shop	N.A.	R***	N.A.
e. Aux Building, El 140, Hot Shop	N.A.	R***	N.A.
f. Aux Building, El 140, Near Control Room Door	N.A.	R***	N.A.
3. Triaxial Response Spectrum Recorders			
Containment Base Slab, El 89, 180°	N.A.	R***	N.A.

cept seismic trigger.

**With reactor control room indications or annunciation.

***Channel calibration shall be in accordance with ANSI/ANS-2.2-1978.

DC ALL-004

11-01-R

~~CHLORINE DETECTION SYSTEMS~~

~~LIMITING CONDITION FOR OPERATION~~

~~3.3.3.7 Two independent Chlorine Detection Systems,# with their Alarm/Trip Setpoints adjusted to actuate at a chlorine concentration of less than or equal to 5 ppm, shall be OPERABLE.~~

~~APPLICABILITY: All MODES, when bulk chlorine gas is stored on the plant site.~~

~~ACTION:~~

~~a. With one Chlorine Detection System inoperable, restore the inoperable system to OPERABLE status within 7 days or within the next 6 hours initiate and maintain operation of the Control Room Ventilation System in a recirculation mode with the HEPA filter and charcoal absorber system in operation.~~

~~b. With both Chlorine Detection Systems inoperable, within 1 hour initiate and maintain operation of the Control Room Ventilation System in a recirculation mode with the HEPA filter and charcoal absorber system in operation.~~

~~SURVEILLANCE REQUIREMENTS~~

~~4.3.3.7 Each Chlorine Detection System shall be demonstrated OPERABLE by performance of a CHANNEL CHECK at least once per 12 hours and a CHANNEL FUNCTIONAL TEST at least once per 31 days. At least once per 18 months, the following inspections and maintenance shall be performed:~~

~~a. Check constant head bottle level and refill as necessary,~~

~~b. Clean the sensing cells,~~

~~c. Check flow meter operation and clean or replace filters and air lines as necessary,~~

~~d. Check air pump for proper operation, and~~

~~e. Verify that the detector responds to chlorine.~~

~~#The Chlorine Detection System is common to both units and is installed in the normal intakes to the Control Room Ventilation System.~~

DC ALL-024

~~10-01-R~~

INSTRUMENTATION

~~3/4.3.4 TURBINE OVERSPEED PROTECTION~~

~~LIMITING CONDITION FOR OPERATION~~

~~3.3.4.1 At least one Turbine Overspeed Protection System shall be OPERABLE.~~

~~APPLICABILITY: MODES 1, 2 and 3 (during turbine operation).~~

~~ACTION:~~

~~a. With one stop valve or one control valve per high pressure turbine steam line inoperable or with one reheat stop valve or one reheat intercept valve per low pressure turbine steam line inoperable, restore the inoperable valve(s) to OPERABLE status within 72 hours, or isolate the turbine from the steam supply within the next 6 hours.~~

~~b. With the above required Turbine Overspeed Protection System otherwise inoperable, within 6 hours isolate the turbine from the steam supply.~~

~~SURVEILLANCE REQUIREMENTS~~

~~4.3.4.1.1 The provisions of Specification 4.0.4 are not applicable.~~

~~4.3.4.1.2 The above required Turbine Overspeed Protection System shall be demonstrated OPERABLE:~~

~~a. At least once per quarter by cycling and direct observation of the movement of each of the following valves through at least one complete cycle from the running position:~~

~~1) Four high pressure turbine stop valves,~~

~~2) Four high pressure turbine control valves,~~

~~3) Six low pressure turbine reheat stop valves, and~~

~~4) Six low pressure turbine reheat intercept valves.~~

~~b. At least once per 18 months by performance of a CHANNEL CALIBRATION on the Turbine Overspeed Protection Systems.~~

~~c. At least once per 40 months by disassembling at least one of each of the above valves and performing a visual and surface inspection of valve seats, disks and stems and verifying no unacceptable flaws or corrosion.~~

CHANGE NUMBER	NSHC	DESCRIPTION
03-11	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-12	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-13	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
03-14	LS29	This proposed change adds an ACTION and an allowed outage time of 4 hours for one inoperable Containment Ventilation Radiation instrumentation or actuation channel. The CTS via ACTIONS 18 and 33 requires that for one or two instruments or channels inoperable that CTS 3.6.3 or 3.9.9 be entered. The revised TS will require that ITS 3.6.3 or 3.9.4 be entered if the instrument or channel cannot be returned to an OPERABLE status within the revised AOT. This change is consistent with the requirements of NUREG-1431.
03-15	M	This change revises CTS ACTION 34 to require appropriate MODE changes or condition changes for the CRVS with one inoperable normal intake monitor and new ACTION 36 specifies actions for two inoperable normal intake monitors. The CTS requires that if the required ACTIONs for one inoperable CRVS monitor is not met that LCO 3.0.3 be entered. In addition, the CTS does not specify a required action if both monitors are inoperable. NUREG-1431 requires that for the above conditions that appropriate actions be taken to place the plant in acondition of non-APPLICABILITY. These ACTIONs specify a shutdown requirement for MODES 1-4 that is one hour less than LCO 3.0.3, and immediate ACTION for inoperability in MODE 5 or 6, and immediate action for inoperability during fuel movement. These changes are consistent with NUREG-1431. Refer also to CN 03-08-M, CN 03-04-M, and CN 3.3-51.
03-16	~~A~~ e	NOT USED ~~ITS 3.3.6 for DCPP includes MODES 1-4 and during movement of irradiated fuel assemblies within containment, in addition to MODE 6, in the LCO APPLICABILITY. These requirements are inferred in CTS 3.6.3 and are repeated here for clarity.~~ e DC ALL-002
03-17	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
04-01	R	DCPP LCO 3.3.3.2, Movable Incore Detectors, is relocated to a licensee controlled document, see Attachment 21, page 11.
05-01	R e	Not used ~~DCPP LCO 3.3.3.3, Seismic Instrumentation, is relocated to a licensee controlled document, see LAR 95-07.~~ DC ALL-004

INSERT 3-19 (1) Q 3-15

INSERT 3-21-LS52 Q 3.3-82

INSERT 3-22-LS20. Q 3.3-79

CHANGE NUMBER	NSHC	DESCRIPTION	
08-03	A	This change revises CTS Table [3.3-10] to clarify the number of channels required to be Operable. This is an administrative change which deletes the "Minimum Channels Operable" column [ ]. The required ACTIONs are now based on one channel inoperable or two channels inoperable, rather than "less than the Total Number" or "less than Minimum Number." This change is consistent with NUREG-1431.	
08-04	LS17	Consistent with NUREG-1431 (ITS 3.3.3 Required ACTIONs C.1, E.1, and G.1), this change deletes the requirement to initiate an alternate means of monitoring within 72 hours when two channels of Containment Radiation Level ~~or RVLIS~~ are inoperable as specified in CTS [3.3.3.6 ACTION d. In addition, a special report is required within 14 days that identifies the alternate method of monitoring the appropriate parameter(s), as well as the current special report requirements].	DC ALL-002
08-05	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).	
08-06	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).	
08-07	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).	
08-08	LS27	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).	
08-09	LG	~~Not Used.~~ INSERT 8-09	Q 3.3-20
08-10		Not Used.	
08-11	LS30	This change revises the DCPP CTS 3.3.3.6 to conform to NUREG-1431 and revises CTS Table 3.3-10 to both add and delete instruments per the Reviewer's Note on ISTS Table 3.3.3-1.	Q 8-11
~~08-11~~	~~A~~	~~INSERT 8-11-A~~	
~~08-11~~	~~M~~	~~INSERT 8-11-M~~	
09-01	LG	The explosive gas monitoring instrumentation will be controlled by the Explosive Gas Monitoring Program established in accordance with ITS 5.5.12, see Attachment 21, page 15.	
10-01	R	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). ~~The Turbine Overspeed Protection System is relocated to a licensee controlled document, see LAR 95-07.~~	DC ALL-004
11-01	~~R~~	~~LCO 3.3.3.7, Chlorine Detection Systems, is relocated to a licensee controlled document, see LAR 95-07.~~ Not used.	DC ALL-004

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
03-15 M	This change revises DCPP CTS ACTION 34 and adds new ACTION 36 to require appropriate MODE changes or condition changes for the CRVS with one or two inoperable normal intake monitors. These actions specify a shutdown requirement for MODES 1-4 that is one hour less than LCO 3.0.3, and immediate action for inoperability in MODE 5 or 6, and immediate action for inoperability during fuel movement. Refer also to CN 03-08-M, CN 03-04-M, and CN 3.3-51.	Yes	No	No	No
03-16 ~~A~~ e Not used.	~~ITS 3.3.6 for DCPP includes MODES 1-4 and during~~ movement of irradiated fuel assemblies within containment, in addition to MODE 6, in the LCO Applicability. These requirements are inferred in CTS 3.6.3 and are repeated here for clarity. e	~~Yes~~ e NA	~~No~~ e NA	~~No~~ e NA	~~No~~ e NA Q 3-16 DC ALL-002
03-17 A	The CPSES restrictions on opening of the containment pressure relief valves is moved from the Radiation Monitoring Instrumentation specification in the CTS to ITS 3.6.3 and the ITS Administrative Controls Section 5.5.1 for the ODCM.	No	Yes	No Q 3-01	No
04-01 R	DCPP LCO 3.3.3.2, Movable Incore Detectors, is relocated to a licensee controlled document.	Yes, see Attachment 21, page 11.	No	No	No
05-01 ~~R~~ e	DCPP LCO 3.3.3.3, Seismic Instrumentation, is relocated to a licensee controlled document. (Not used)	Yes, see LAR 95-07 NA	~~No~~ e NA	~~No~~ e NA	~~No~~ NA DC ALL-004
06-01 R	DCPP LCO 3.3.3.4, Meterological Instrumentation, is relocated to a licensee controlled document.	Yes, see Attachment 21, page 13.	No	No	No

INSERT 3-19-LS50(a) Q 3-15 INSERT 3-22-LS20 Q 3.3-79

INSERT 3-21-LS52(a) Q 3.3-82

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
08-10	Not used.	N/A	N/A	N/A	N/A
08-11 LS30	This change revises the DCPP CTS 3.3.3.6 to conform to NUREG-1431 Revision 1 and revises CTS Table 3.3-10 to both add and delete instruments per the Reviewer's Note on ISTS Table 3.3.3-1.	Yes	No	No	No
09-01 LG	The explosive gas monitoring instrumentation will be controlled by the Explosive Gas Monitoring Program established in accordance with ITS 5.5.12.	Yes, see Attachment 21, page 15.	Yes, Instrument surveillances moved to the TRM. CP 3.3-006	No, already moved to Administrative Controls section (OL Amendment No. 89).	No, already moved to Administrative Controls section (OL Amendment No. 103).
10-01 R	The Turbine Overspeed Protection System is relocated to a licensee controlled document.	~~Yes, see LAR 95-07.~~ No	Yes, relocated to TRM.	No, already relocated to USAR (OL Amendment No. 89).	No, already relocated to FSAR Section 16.3 (OL Amendment No. 103). DC ALL-004
11-01 ~~R~~	~~LCO 3.3.3.7, Chlorine Detection Systems, is relocated to a licensee controlled document.~~ Not used	~~Yes, see LAR 95-07.~~ NA	~~No, not in CTS.~~ NA	~~No, not in CTS.~~ NA	~~No, not in CTS.~~ NA DC ALL-004

INSERT 08-11-A
INSERT 08-11-M

Q 8-11
Q 8-11

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC ALL-005 **APPLICABILITY:** DC

REQUEST:

DCPP has submitted and received NRC approval for five LARs to support CTS surveillance interval increases due to 24-month fuel cycles. The first two approved LAs (118/116 and 119/117 issued July 13, 1998) were addressed in the errata to LAR 97-09 (DCL-98-003, dated January 9, 1998) and are indicated with "DC-ALL-001." The next three approved LAs (122/120 dated February 17, 1998, 123/121, dated February 27, 1998, and 126/124, dated June 5, 1998) are indicated with "DC-ALL-005."

With the revision to the surveillance frequency for the seismic trip, JFD 3.3-45 is revised to delete the addition of SR 3.3.1.17, a 24-month ALT, and apply SR 3.3.1.5, which is an ALT performed monthly on a STAGGERED TEST BASIS. Since SR 3.3.1.17 is still used to verify the OPERABILITY of Function 18.b., the P-7 interlock, it is not deleted, but retained via the response to Comment Number Q 3.3-54.

ATTACHED PAGES:

<u>2.0</u>

Encl. 2	2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 2-10

<u>3.3</u>

Encl. 2	3/4 3-10, 11, 12, 23, 24, 25, 26, 27, 32, 33, 34, 35, 39, 47, 49 and 53
Encl. 5A	3.3-16, 17, 18, 21, 22, 25, 26, 27, 28, 36, 37, 38, 39, 41, 42, 44, 45, 47, 48, 49, 51, 54, 57 58, 59, and 67
Encl. 5B	B 3.3-4, 5, 56, 57, 59, 60, 61, 63, 67, 68, 126, 127, 128, 148, 154, 155, 171
Encl. 6A	4, 9
Encl. 6B	8 and 17 of 21

02-01-A

TABLE 2.2-1

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. Manual Reactor Trip	N.A.	N.A
2. Power Range, Neutron Flux		DC ALL-005
a. Low Setpoint	≤ 25% of RATED THERMAL POWER	≤ 26.2 ~~27.1~~% of RATED THERMAL POWER
b. High Setpoint	≤ 109% of RATED THERMAL POWER	≤ ~~111.1~~ 110.2% of RATED THERMAL POWER DC ALL-005
3. Power Range, Neutron Flux High Positive Rate	≤ 5% of RATED THERMAL POWER with a time constant ≥ 2 seconds	≤ ~~6.3~~% of RATED THERMAL POWER with a time constant ≥ 2 seconds DC ALL-005
4. Power Range, Neutron Flux High Negative Rate	≤ 5% of RATED THERMAL POWER with a time constant ≥ 2 seconds	≤ 5.7 ~~6.3~~% of RATED THERMAL POWER with a time constant ≥ 2 seconds
5. Intermediate Range, Neutron Flux	≤ 25% of RATED THERMAL POWER	≤ ~~30.9~~ 30.6% of RATED THERMAL POWER DC ALL-005
6. Source Range, Neutron Flux	≤ 10^5 counts per second	≤ 1.4 x 10^5 counts per second
7. Overtemperature ΔT	See Note 1	See Note 2
8. Overpower ΔT	See Note 3	See Note 4
9. Pressurizer Pressure-Low	≥ 1950 psig	≥ 1947.5 ~~1944.4~~ psig DC ALL-005
10. Pressurizer Pressure-High	≤ 2385 psig	≤ 2387.5 ~~2390.6~~ psig
11. Pressurizer Water Level-High	≤ 92% of instrument span	≤ 90.2 ~~92.5~~% of instrument span
12. Reactor Coolant Flow-Low	≥ 90% of minimum measured flow** per loop	≥ 89.8 ~~89.7~~% of minimum measured flow** per loop

**Minimum measured flow is 89,800 gpm per loop for Unit 1 and 90,625 gpm per loop for Unit 2.

TABLE 2.2-1 (Continued)

02-01-A

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
13. Steam Generator Water Level-Low-Low	≥ 7.2% of narrow range instrument span-each steam generator	≥ ~~6.8~~ 7.0% of narrow range instrument span-each steam generator DC ALL-005
Coincident with:		
a. RCS Loop ΔT Equivalent to Power ≤50% RTP	RCS Loop ΔT variable input ≤50% RTP	RCS Loop ΔT variable input ≤ ~~51.5~~ 50.7% RTP DC ALL-005
With a time delay (TD)	≤TD (Note 5)	≤(1.01)TD (Note 5)
Or		
b. RCS Loop ΔT Equivalent to Power >50% RTP	RCS Loop ΔT variable input >50% RTP	RCS Loop ΔT variable input > ~~51.5~~ 50.7% RTP
With no time delay	TD = 0	TD = 0
14. DELETED		
15. Undervoltage-Reactor Coolant Pumps	≥ 8050 volts-each bus	≥ ~~7730~~ 7877 volts-each bus
16. Underfrequency-Reactor Coolant Pumps	≥ 54.0 Hz - each bus	≥ 53.9 Hz - each bus
17. Turbine Trip		DC 3.3-002
a. Low Autostop Oil Pressure	≥ 50 psig	≥ ~~45~~ 46.5 psig
b. Turbine Stop Valve Closure	≥ 1% open	≥ 1% open
18. Safety Injection Input from ESF	N.A.	N.A.
19. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.
20. Reactor Trip Breakers	N.A.	N.A.
21. Automatic Trip and Interlock Logic	N.A.	N.A.

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

02-01-A

DC ALL-005

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
22. Reactor Trip System Interlocks		
a. Intermediate Range Neutron Flux, P-6	≥ 1 x 10^{-10} amps	≥ ~~6~~ 8 x 10^{-11} amps
b. Low Power Reactor Trips Block, P-7		
1) P-10 Input	10% of RATED THERMAL POWER	≥ ~~7.9~~ 8.8%, ≤ ~~12.1~~ 11.2% of RATED THERMAL POWER
2) P-13 Input Pressure Equivalent	≤ 10% RTP Turbine Impulse Pressure Equivalent	≤ ~~12.1~~ 10.2% RTP Turbine Impulse
c. Power Range Neutron Flux, P-8	≤ 35% of RATED THERMAL POWER	≤ ~~37.1~~ 36.2% of RATED THERMAL POWER
d. Power Range Neutron Flux, P-9	≤ 50% of RATED THERMAL POWER	≤ ~~52.1~~ 51.2% of RATED THERMAL POWER
e. Power Range Neutron Flux, P-10	10% of RATED THERMAL POWER	≥ ~~7.9~~ 8.8%, ≤ ~~12.1~~ 11.2% of RATED THERMAL POWER
f. Turbine Impulse Chamber Pressure, P-13	≤ 10% RTP Turbine Impulse Pressure Equivalent	≤ ~~12.1~~ 10.2% RTP Turbine Impulse Pressure Equivalent
23. Seismic Trip	≤ 0.35 g	≤ ~~0.40~~ 0.43 g

TABLE NOTATIONS

02-01-A

NOTE 1: OVERTEMPERATURE ΔT

remove strikeout

3.3Q2-05(2.0)

$$\Delta T \left(\frac{1+\tau_4 S}{1+\tau_5 S}\right) \le \Delta T_o \{K_1 - K_2 \left(\frac{1+\tau_1 S}{1+\tau_2 S}\right) [T - T'] + K_3(P - P') - f_1(\Delta I)\}$$

~~02-05-A~~

Where: $\frac{1+\tau_4 S}{1+\tau_5 S}$ = Lead-lag compensator on measured ΔT

DC ALL-005

compensator

τ_4, τ_5 = Time constants utilized in the lead-lag ~~controller~~ compensator for ΔT. τ_4 = ~~≥~~ ~~3~~0 seconds, τ_5 = ~~≤~~ ~~3~~0 seconds

Loop specific

remove strikeout

DC ALL-005

~~02-04-~~

ΔT_o = ~~Indicated~~ ΔT at RATED THERMAL POWER

3.3Q2-04(2.0)

K_1 = ~~≤~~ 1.2

~~02-04-M~~

K_2 = 0.0182/°F

compensator

DC ALL-005

$\frac{1+\tau_1 S}{1+\tau_2 S}$ = The function generated by the lead-lag ~~controller~~ compensator for T_{avg} dynamic compensation

compensator

τ_1, τ_2 = Time constants utilized in the lead-lag ~~controller~~ compensator for Tavg. τ_1 = ~~≥~~ 30 seconds τ_2 = ~~≤~~ 4 seconds

~~02-04-~~

T = Average temperature, °F;

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

TABLE NOTATIONS

02-01-A

DC-ALL-005

NOTE 1: (Continued)

Loop Specific Indicated

T' = Nominal T_{avg} at RATED THERMAL POWER; ≤576.6 °F (Unit 1) and ≤577.6 °F (Unit 2)

02-07-A

K_3 = 0.000831/psig

P = Pressurizer pressure, psig

P' = 2235 psig (Nominal RCS operating pressure)

S = Laplace transform operator, S^{-1}

and f_1 (ΔI) is a function of the indicated difference between top and bottom detectors of the power-range nuclear ion chambers; with gains to be selected based on measured instrument response during plant startup tests such that:

(I) for q_t - q_b between - 19% and + 7%, f_1 (ΔI) = 0 (where q_t and q_b are percent RATED THERMAL POWER in the top and bottom halves of the core respectively, and $q_t + q_b$ is total THERMAL POWER in percent of RATED THERMAL POWER).

(ii) for each percent that the magnitude of (q_t - q_b) exceeds - 19%, the ΔT Trip Setpoint shall be automatically reduced by 2.75% of its value at RATED THERMAL POWER.

(iii) for each percent that the magnitude of (q_t - q_b) exceeds + 7%, the ΔT Trip Setpoint shall be automatically reduced by 2.38% of its value at RATED THERMAL POWER.

0.46 DC ALL-005

NOTE 2: The channel's maximum Trip Setpoint shall not exceed its computed Trip Setpoint by more than ~~1.0~~% ΔT span.

for hot leg or cold leg temperature inputs, 0.14% span for pressurizer pressure input, or 0.19% ΔT span for ΔI inputs

DC ALL-005

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

TABLE NOTATIONS

02-01-A

NOTE 3: OVERPOWER ΔT

$$\Delta T \frac{1+\tau_4 S}{1+\tau_5 S} \leq \Delta t_o\{K_4 - K_5 \left(\frac{\tau_3 S}{1+\tau_3 S}\right) T - K_6 [T-T''] - f_2(\Delta I)\}$$

Where: $\frac{1+\tau_4 S}{1+\tau_5 S}$ = Lead-lag compensator on measured ΔT

Remove strikeout 3.3Q 2-04(2.0)

Compensator

τ_4, τ_5 = Time constants utilized in the lead-lag ~~controller~~ for ΔT. τ_4 = 0 seconds. DC ALL-005 ~~02-04~~

τ_5 = 0 seconds

Loop Specific

Remove strikeout

Δt_o = Indicated ΔT at RATED THERMAL POWER

K_4 = 1.072 ~~02-04-M~~

K_5 = 0.0174/°F for increasing average temperature, and 0 for decreasing average temperature

Compensator DC ALL-005

$\frac{\tau_3 S}{1+\tau_3 S}$ = The function generated by the rate-lag ~~controller~~ for T_{avg} dynamic compensation

Compensator DC ALL-005

τ_3 = Time constants utilized in the rate-lag ~~controller~~ for T_{avg}.

τ_3 = 10 secs.

remove strike out

K_6 = 0.00145/°F for T > T", and 0 for T ≤ T" ~~02-04~~

T = Average temperature, °F

Nominal Loop Specific DC ALL-005

T" = Indicated T_{avg} at RATED THERMAL POWER, ≤576.6 °F (Unit 1) and ≤577.6 °F (Unit 2). 02-07-A

S = Laplace transform operator, s^{-1}

$f_2(\Delta I)$ = 0 for all ΔI

TABLE NOTATIONS

0.46 DC ALL-005

NOTE 4: The channel's maximum Trip Setpoint shall not exceed its computed Trip Setpoint by more than ~~1.0~~% ΔT span for hot leg or cold leg temperature inputs

02-01-A

NOTE 5: Steam Generator Water Level Low-Low Trip Time Delay

$$TD = B1(P)^3 + B2(P)^2 + B3(P) + B4$$

Where: P = RCS Loop ΔT Equivalent to Power (%RTP), P ≤ 50% RTP

TD = Time delay for Steam Generator Water Level Low-Low Reactor Trip (in seconds).

B1 = -0.007128

B2 = +0.8099

B3 = -31.40

B4 = +464.1

4.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~	
						Q1-23	01-44-A 1-41-A
1. Manual Reactor Trip	N.A.	N.A.	N.A.	~~R(14)~~ (9) R24	N.A.	~~1, 2, 3*, 4*, 5*~~	01-32-LG DC ALL-001
2. Power Range, Neutron Flux a. High Setpoint	S	D(2, 4), ~~M(3, 4)~~, ~~Q(4, 6)~~, R(4, 5, 22) 24	Q	N.A.	N.A.	~~1, 2~~	01-21-A 01-23-A
b. Low Setpoint	S	R(4, 5, 22)	S/U(1, 20) Q(19, 20)	N.A.	N.A.	~~1###, 2~~	DC ALL-005 01-22-M 01-23-A
3. Power Range, Neutron Flux, High Positive Rate	N.A.	R(4, 5, 22)	Q	N.A.	N.A.	~~1, 2~~	01-39-A 01-23-A
4. Power Range, Neutron Flux, High Negative Rate	N.A.	R(4, 5, 22) 24	Q	N.A.	N.A.	~~1, 2~~	DC ALL-002 01-39-A 01-23-A
5. Intermediate Range, Neutron Flux	S	R(4, 5)	S/U(1, 20) Q(19, 20)	N.A.	N.A.	~~1###, 2~~	DC AL-005 01-22-M
6. Source Range, Neutron Flux	S	~~R(4, 5)~~ 24	S/U(1, ~~8~~), Q(~~9~~, 19) 20	N.A.	N.A.	~~2##, 3, 4, 5~~	DC ALL-002 01-26-LG ~~01-28-A~~
7. Overtemperature ΔT	S	R (22), M(3, 4), Q(4, 6) 24	Q	N.A.	N.A.	~~1, 2~~	DC 3.3-004 01-27-LS10 01-23-A
8. Overpower ΔT	S	R (22)	Q	N.A.	N.A.	~~1, 2~~	DC ALL-005 01-21-A 01-23-A
9. Pressurizer Pressure-Low	S	R (22) 24	Q	N.A.	N.A.	~~1~~	
10. Pressurizer Pressure-High	S	R (22)	Q	N.A.	N.A.	~~1, 2~~	DC ALL-005 01-23-A 01-23-A
11. Pressurizer Water Level-High	S	R (22) 24	Q	N.A.	N.A.	~~1~~	
12. Reactor Coolant Flow-Low	S	R (22)	Q	N.A.	N.A.	~~1~~	DC ALL-005 01-23-A 01-23-A

01-68-LS54
01-69-M
DC 3.3-004

TABLE [illegible] (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~	
13. Steam Generator Water Level-Low-Low							01-44-A DC ALL-002
a. Steam Generator Water Level-Low-Low	S	R(22) 24	Q	N.A.	N.A.	~~1, 2~~	01-23-A DC ALL-005
b. RCS Loop ΔT Equivalent to Power	N.A.	R (22) 24	Q	N.A.	N.A.	~~1, 2~~	01-23-A
14. DELETED							
15. Undervoltage-Reactor Coolant Pumps	N.A.	R (22) 24	N.A.	Q(9)	N.A.	~~1~~	01-23-A 01-16-LS40 DC ALL-005
16. Underfrequency-Reactor Coolant Pumps	N.A.	R (22) 24	N.A.	Q(9)	N.A.	~~1~~	01-23-A 01-16-LS40
17. Turbine Trip		24					LS53
a. Low Fluid Oil Pressure	N.A.	R(22)	N.A.	S/U(1, 9)	N.A.	~~1~~	01-36-A DC 3.3-002 ~~01-23-A~~
b. Turbine Stop Valve Closure	N.A.	R(22)	N.A.	S/U(1, 9)	N.A.	~~1~~	01-24-LS9 Q 1-23 ~~1-64-A~~
18. Safety Injection Input from ESF	N.A.	N.A.	N.A.	R 24 (9)	N.A	~~1, 2~~	DC ALL-001 DC ALL-001
19. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	N.A.	R 24	N.A.	~~1~~	
20. Reactor Trip System Interlocks							DC ALL-005
a. Intermediate Range Neutron Flux, P-6	N.A.	R(4) 24	R	N.A.	N.A.	2##	DC ALL-005
~~b. Low Power Reactor Trips Block, P-7~~	~~N.A.~~	~~R(4)~~ ~~24~~ N.A.	(R) 24 N.A.	~~N.A.~~	~~N.A.~~ R24	1	Q 1-51 01-51-LG
c. Power Range Neutron Flux, P-8	N.A.	R(4) 24	R	N.A.	N.A.	~~1~~	01-59-LS46 DC ALL-005

Delete Strike-out to Restore.

TABL[illegible]1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~	01-44-A
20. Reactor Trip System Interlocks (Continued)							
d. Power Range Neutron Flux, P-9	N.A.	R(4) 24	R 24	N.A.	N.A.	~~1~~	DC ALL-005
e. Low Setpoint Power Range Neutron Flux, P-10	N.A.	R(4)	R	N.A.	N.A.	~~1, 2~~	
f. Turbine Impulse Chamber Pressure, P-13	N.A.	R (22)	R	N.A.	N.A.	~~1~~	01-23-A
21. Reactor Trip Breaker	N.A.	N.A.	N.A.	M(7, ~~10~~)	N.A.	~~1, 2, 3*, 4*, 5*~~	01-32-LG
(new) Reactor Trip Breaker Undervoltage and Shunt Trip Mechanisms	N.A.	N.A.	N.A.	M(7)	N.A.		01-14-A
22. Automatic Trip and Interlock Logic	N.A.	N.A.	N.A.	N.A.	M(7)	~~1, 2, 3*, 4*, 5*~~	
23. Seismic Trip	N.A.	R 24	N.A.	R 24	~~R~~ M(7)	~~1, 2~~	DC ALL-005
24. Reactor Trip Bypass Breaker	N.A	N.A.	N.A.	M(7, 15), ~~R(16)~~ 24	N.A.	~~1,2,3*,4*,5*~~	01-32-LG DC ALL-001

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

DC 3.3-E2

02-01-A

02-19-LG

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. Safety Injection ~~(Reactor Trip, Feedwater Isolation, Start Diesel Generators, Containment Fan Cooler Units, and Component Cooling Water)~~		
a. Manual Initiation	N.A.	N.A
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A
c. Containment Pressure-High	≤ 3 psig	≤ ~~3.3~~ 3.12 psig
d. Pressurizer Pressure-Low	≥ 1850 psig	≥ ~~1844.4~~ 1847.5 psig
e. DELETED		
f. Steam Line Pressure-Low	≥ 600 psig (Note 1)	≥ ~~594.6~~ 597.6 psig (Note 1)

DCA4-005

TABLE [illegible] (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

02-28-LG

Word should be Coincidence

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES	
2. Containment Spray ~~(Containment with SI Signal)~~			
a. Manual Initiation	N.A.	N.A	
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A	
c. Containment Pressure-High-High	≤ 22 psig	≤ ~~22.3~~ 22.12 psig	DC ALL-005
3. Containment Isolation			
a. Phase "A" Isolation			
1) Manual	N.A.	N.A	
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A	
3) Safety Injection	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.		
b. Phase "B" Isolation			
1) Manual	N.A.	N.A	
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A	
3) Containment Pressure-High-High	≤ 22 psig	≤ ~~22.3~~ 22.12 psig	DC ALL-005

TABLE [illegible] (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

02-01-A

DC 3.3-E0

02-05-M

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES	
3. Containment Isolation (Continued)			
c. Containment Ventilation Isolation			
1) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	
2) Deleted			
3) Safety Injection	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.		
4) Containment Ventilation Exhaust Radiation-High ~~(RM 44A and 44B)~~	Per the ODCP		2-ab-LG Q 3.3-79
4. Steam Line Isolation			
a. Manual	N.A.	N.A.	
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	
c. Containment Pressure-High-High	≤ 22 psig	≤ ~~22.3~~ 22.12 psig	DC ALL-005
d. Steam Line Pressure-Low	≥ 600 psig (Note 1)	≥ ~~594.6~~ 597.6 psig (Note 1)	DC ALL-005

02-01-A

DC 3.3-ED

TABLE [illegible] (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
e. Negative Steam Line Pressure Rate - High	≤ 100 psi (Note 3)	≤ ~~105.4~~ 102.4 psi (Note 3) DC ALL-005
5. Turbine Trip and Feedwater Isolation		
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.
b. Steam Generator Water level-High-High	$\leq$ 75% of narrow range instrument span each steam generator.	$\leq$ ~~75.5~~ 75.2% of narrow range instrument span each steam generator. DC ALL-005
6. Auxiliary Feedwater		
a. Manual	N.A.	N.A.
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.
c. Steam Generator Water Level-Low-Low	$\geq$ 7.2% of narrow range instrument span each steam generator.	$\geq$ ~~6.8~~ 7.0% of narrow range instrument span each steam generator. DC ALL-005
Coincident with:		
1) RCS Loop ΔT Equivalent to Power ≤ 50% RTP	RCS Loop ΔT variable input ≤ 50% RTP	RCS Loop ΔT variable input ≤ ~~51.5~~ 50.7% RTP DC ALL-005
With a time delay (TD)	≤ TD (Note 2)	≤ (1.01)TD (Note 2)
Or		
2) RCS Loop ΔT Equivalent to Power >50% RTP	RCS Loop ΔT variable input > 50% RTP	RCS Loop ΔT variable input > ~~51.5~~ 50.7% RTP DC ALL-005
With no time delay	TD = 0	TD = 0
d. Undervoltage - RCP	$\geq$ 8050 volts	$\geq$ ~~7730~~ 7877 volts DC ALL-005
e. Safety Injection		See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.

TABLE [illegible] (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

02-01-A
DC 3.3-EA
02-11-A

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
7. Loss of Power (4.16 kV Emergency Bus Undervoltage)		
a. First Level		DC ALL-002
1) Diesel Start	≤ 0.8 second time delay and ≥ 2583 volts with a ≤ 10 second time delay One relay	≥ 0 volts with a ≥ 0 volts with a ≤ 0.8 second time delay and ≥ 2583 volts with ≤ 10 second time delay One relay
2) Initiation of Load Shed	≥ 0 volts with a ≤ 4 second time delay and ≥ 2583 volts with a ≤ 25 second time delay with one relay ≥ 2870 volts, instantaneous	≥ 0 volts with a ≤ 4 second time delay and ≥ 2583 volts with a ≤ 25 second time delay with one relay ≥ 2870 volts, instantaneous
b. Second Level		DC ALL-002
1) Diesel Start		≥ 3785 volts with a ≥ 3785 volts with a
2) Initiation of Load Shed	≤ 10 second time delay ≥ 3785 volts with a ≤ 20 second time delay	≤ 10 second time delay ≥ 3785 volts with a ≤ 20 second time delay
8. Engineered Safety Features Actuation System Interlocks		DC ALL-005
a. Pressurizer Pressure, P-11	≤ 1915 psig	≤ ~~1920.6~~ 1917.5 psig
b. DELETED		
c. Reactor Trip, P-4	N.A.	N.A.
9. Residual Heat Removal pump trip ~~on low~~ RWST level -low	≥ ~~33% level~~ 32.56	≤ ~~32.9% level~~ 33.68 and ≥ 31.49%

DC ALL-002
02-29-M

NOTE 1: Time constants utilized in the lead-lag ~~controller~~ compensator for Steam Pressure - Low are τ_1 = 50 seconds and τ_2 = 5 seconds.

NOTE 2: Steam Generator Water Level Low-Low Trip Time Delay

DC ALL-005

$$TD = B1(P)^3 + B2(P)^2 + B3(P) + B4$$

Where: P = RCS Loop ΔT Equivalent to Power (%RTP), P ≤ 50% RTP

TD = Time delay for Steam Generator Water Level Low-Low (in seconds)

B1 = -0.007128
B2 = +0.8099
B3 = -31.40
B4 = +464.1

NOTE 3: Time constants utilized in the rate-lag ~~controller~~ compensator for Negative Steam Line Pressure Rate-High are τ_3 = 50 seconds and τ_4 = 50 seconds.

DC ALL-005

TABLE 4.3-2

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~
1. Safety Injection ~~(Reactor Trip Feedwater Isolation, Start Diesel Generators, Containment Fan Cooler Units, and Component Cooling Water)~~								02-19-LG
a. Manual Initiation	N.A.	N.A.	N.A.	R 24 (9) DC ALL-001	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~ Q 1-23
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005 DC ALL-002
c. Containment Pressure-High	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3~~ 4 01-23-A DC ALL-005
d. Pressurizer Pressure-Low	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3~~ 01-23-A
e. DELETED								
f. Steam Line Pressure-Low	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3~~ 4 DC ALL-002 01-23-A
2. Containment Spray ~~(coincident with SI signal)~~								Q 1-23 02-28-LG
a. Manual Initiation	N.A.	N.A.	N.A.	R 24 (9) DC ALL-001	N.A.	N.A.	N.A.	~~1, 2, 3~~ 4 DC ALL-002
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005 DC ALL-002
c. Containment Pressure-High-High	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3, 4**~~ 01-23-A DC ALL-005

~~* These changes from License Amendments 84 & 83.~~

~~** These changes from License Amendments 89 & 88.~~

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALI-BRATION	CHANNEL OPERA-TIONAL TEST	TRIP ACTUATING DEVICE OPERA-TIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~
3. Containment Isolation				DC ALL-001				Q1-23
a. Phase "A" Isolation								
1) Manual	N.A.	N.A.	N.A.	R 24 (9)	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							Q1-23
b. Phase "B" Isolation				DC ALL-001				
1) Manual	N.A.	N.A.	N.A.	R 24 (9)	~~N.A.~~	N.A.	N.A.	~~1, 2, 3, 4~~
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
3) Containment Pressure-High-High	S	R~~(6)~~ 24	Q	N.A.	N.A.	N.A.	N.A.	DC ALL-005 ~~1, 2, 3, 4~~ 01-23-A
c. Containment Ventilation Isolation								02-~~20-A~~ 2 ~~05-A~~ Q 2-05 (3.3)
1) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3, 4~~ DC ALL-005
2) Deleted								
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
4) Containment Ventilation Exhaust Radiation-High ~~(RM-44A and 44B)~~	S	R~~(6)~~ 24	Q(2)	N.A.	N.A.	N.A.	N.A.	DC ALL-005 ~~1, 2, 3, 4~~ 02-51-LG

Q 3.3-79
Q 3.3-2

01-23-A
02-35-A

TABLE [illegible] (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

SURVEILLANCE REQUIREMENTS

DC ALL-002

01-44-A

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR ~~WHICH SURVEILLANCE IS REQUIRED~~
4. Steam Line Isolation								
a. Manual	N.A.	N.A.	N.A.	R 24 (9) DC ALL-001	N.A.	N.A.	N.A.	~~1, 2, 3~~ Q1-23 DC ALL-005
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3~~ DC ALL-002
c. Containment Pressure-High-High (3)	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2,~~ 01-23-A DC ALL-005
d. Steam Line Pressure-Low	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2,~~ 3 01-23-A
e. Negative Steam Line Pressure Rate-High	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	3(3) 01-23-A Remove strikeout DC 3.3-Ed
5. Turbine Trip and Feedwater Isolation								
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2~~ DC ALL-005
b. Steam Generator Water Level-High-High	S	R(6) 24	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2~~ 01-23-A DC ALL-005
6. Auxiliary Feedwater								
a. Manual	N.A.	N.A.	N.A.	R (9)	N.A.	N.A.	N.A.	~~1, 2, 3~~ Q1-23 DC ALL-005
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	R 24	~~1, 2, 3~~ Remove strike out DC 3.3-Ed
c. Steam Generator Water Level-Low-Low								
1) Steam Generator Water Level-Low-Low	S	R(6)	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2~~ 3(5) 01-23-A DC ALL-002
2) RCS Loop ΔT Equivalent to Power	N.A.	R(6) 24	Q	N.A	N.A	N.A	N.A	~~1, 2~~ 01-23-A DC ALL-005

TABLE 4.3-2 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~
6. Auxiliary Feedwater (Continued)								
d. Undervoltage - RCP	N.A.	R~~(6)~~ 24	N.A.	R(24)	N.A.	N.A.	N.A.	~~1~~
e. Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
7. Loss of Power								
a. 4.16 kV Emergency Bus Level 1	N.A.	R	N.A.	R	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~
b. 4.16 kV Emergency Bus Level 2	N.A.	R	N.A.	R	N.A.	N.A.	N.A.	~~1, 2, 3, 4~~
8. Engineered Safety Feature Actuation System Interlocks								
a. Pressurizer Pressure, P-11	N.A.	~~R(6)~~ 24	Q	N.A.	N.A.	N.A.	N.A.	~~1, 2, 3~~
b. DELETED								
c. Reactor Trip, P-4	N.A.	N.A.	N.A.	R~~(6)~~ 24	N.A.	N.A.	N.A.	~~1, 2, 3~~
9. Residual Heat Removal pump trip ~~6~~ on low RWST level	S	R~~(6)~~ 24 (3)	~~N.A.~~ Q	R(24)	N.A	N.A.	N.A	1, 2, 3, 4

01-44-A
DC ALL-002
DC ALL-005
01-23-A
02-11-A
DC ALL-005
01-23-A
DC ALL-001
DC ALL-002
01-23-A
02-29-M
01-23-A
DC 3.3-50
02-35-A
Q 3.3-29

TABLE NOTATIONS

(1) Each train shall be tested at least every ~~62~~ days on a STAGGERED TEST BASIS.
(2) For the Containment Ventilation Exhaust Radiation - High monitor only, a CHANNEL FUNCTIONAL TEST shall be performed at least once every ~~31~~92 days.
(3) Trip function automatically blocked above P-11 (Pressurizer Pressure Interlock) setpoint and is automatically blocked below P-11 when Safety Injection on Steam Line Pressure-Low is not blocked.
(4) DELETED
(5) For Mode 3, the Trip Time Delay associated with the Steam Generator Water Level-Low-Low channel must be less than or equal to

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

	CHANNEL CHECK	CHANNEL CALIBRATION	ACTUATION LOGIC TEST	ADOI	CHANNEL FUNCTIONAL TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED	
									01-44-A
1. Fuel Handling Building									
(New) Manual	NA	NA	NA	R(c)	NA	NA	NA		03-01-A 03-08-M
a. Storage Area									
1) Spent Fuel Pool	S	R	NA	NA	Q	NA	NA	*	
2) New Fuel Storage	S	R	NA	NA	Q	NA	NA	*	
b. Gaseous Activity Fuel Handling Building Ventilation Mode Change(a)	S	R	NA	NA	Q	NA	NA	*	03-21-LS52 Q 3-3-82
2. Control Room Ventilation Mode Change	S	R			Q			All	03-01-A
a. Manual Initiation	NA	NA	NA	R(c)	NA	NA	NA		03-08-M
b. Automatic Actuation ~~Logic and Actuation~~ Relays	NA	NA	~~M~~	NA	NA	~~M~~	R		Q 3-08
c. Control Room Atmosphere Air Intake Radiation Monitors	S	R	NA	NA	Q	NA	NA		DC 3.3-Ed
3. Containment									
a. Gaseous Activity									
1) Deleted									
2) RCS Leakage	S	R 24	NA	NA	Q	NA	NA	~~1, 2, 3, 4~~	DC ALL-005 03-01-A
3) Containment Ventilation Isolation	S	R 24	NA	NA	Q	NA	NA	6	02-51-LG
~~(RM-44A or 44B)~~	S	R			Q				
b. Particulate Activity									
1) Containment Ventilation Isolation ~~(RM-44A or 44B)~~	S	R 24	NA Add Red line	NA	Q	NA	NA	6	Q 3.3-79 DC ALL-002 02-51-LG
2) RCS Leakage	S	R	NA	NA	Q	NA	NA	~~1, 2, 3, 4~~	03-01-A

~~* With fuel in the spent fuel pool or new fuel storage vault.~~ 03-21-LS52

~~(a) The requirements for Fuel Handling Building Ventilation Mode Change are applicable following installation of RM-45A and 45B.~~ Q 3.3-82 03-03-LG

(New) (b) Each train shall be tested at least once every ~~62~~ 31 days on a STAGGERED TEST BASIS. 03-01-A 03-08-M

(New) (c) Verification of setpoint is not required. 03-08-M DC 3.3-Ed

INSTRUMENTATION

REMOTE SHUTDOWN INSTRUMENTATION AND CONTROLS

LIMITING CONDITION FOR OPERATION

01-63-A
Q 1-A GEN

3.3.3.5 The remote shutdown monitoring instrumentation and control functions shown in Table 3.3-9 shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

a. With less than the minimum required Function(s) of Table 3.3-9 operable, restore the inoperable Function(s) to OPERABLE status within 30 days or be in MODE 3 within 6 hours and HOT SHUTDOWN within ~~the next~~ 12 hours. 07-05-A

b. The provisions of Specification 3.0.4 are not applicable.

c. Separate entry into Action a. is allowed for each Function in Table 3.3-9.

SURVEILLANCE REQUIREMENTS

4.3.3.5.1 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION at the frequencies shown in Table 4.3-6.

4.3.3.5.2 Verify each required control circuit and control transfer switch is capable of performing the intended function at least once every ~~18 months~~.

REFUELING INTERVAL

TABLE 4.3-6

REMOTE SHUTDOWN MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	
1. Reactor Trip Breaker Indication	N.A.	N.A.	
2. Pressurizer Pressure	M	R 24	DC ALL-005
3. Pressurizer Level	M	R 24	
4. Steam Generator Wide Range Water Level	M	R 24	
5. Steam Generator Pressure	M	R 24	
6. Condensate Storage Tank Water Level	M	R 24	
7. Auxiliary Feedwater Flow	M	R 24	
8. Charging Flow	M	R 24	
9. RCS Loop 1 Temperature Indication	M	R 24	

Q 8-11

A

~~08-11-L530~~

~~TABLE 4.3-7~~

~~ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS~~

DC ALL-005

~~INSTRUMENT~~	~~CHANNEL CHECK~~	~~CHANNEL CALIBRATION~~
~~1. Containment Pressure~~	~~M~~	~~R~~ 24
~~2. Reactor Coolant Outlet Temperature - T_{hot} (Wide Range)~~	~~M~~	~~R~~ 24
~~3. Reactor Coolant Inlet Temperature - T_{cold} (Wide Range)~~	~~M~~	~~R~~ 24
~~4. Reactor Coolant Pressure - Wide Range~~	~~M~~	~~R~~ 24
~~5. Pressurizer Water Level~~	~~M~~	~~R~~ 24
~~6. Steam Line Pressure~~	~~M~~	~~R~~ 24
~~7. Steam Generator Water Level - Narrow Range~~	~~M~~	~~R~~ 24
~~8. Refueling Water Storage Tank Water Level~~	~~M~~	~~R~~ 24
~~9. Containment Reactor Cavity Sump Level-Wide Range~~	~~M~~	~~R~~ 24
~~10. Containment Recirculation Sump Level-Narrow Range~~	~~M~~	~~R~~ 24
~~11. Auxiliary Feedwater Flow Rate~~	~~M~~	~~R~~ 24
~~12. Reactor Coolant System Subcooling Margin Monitor~~	~~M~~	~~R~~ 24
~~13. PORV Position Indicator~~	~~M~~	~~R~~ 24
~~14. PORV Block Valve Position Indicator~~	~~M~~	~~R~~ 24
~~15. Safety Valve Position Indicator~~	~~M~~	~~R~~ 24
~~16. In Core Thermocouples~~	~~M~~	~~R~~ 24
~~17. Main Steam Line Radiation Monitor~~	~~M~~	~~R~~ 24
~~18. Containment Area Radiation Monitor-High Range~~	~~M~~	~~R*~~ 24
~~19. Plant Vent Radiation Monitor High Range~~	~~M~~	~~R~~
~~20. Reactor Vessel Level Indication System~~	~~M~~	~~R~~ 24

DCALL-005

~~*CHANNEL CALIBRATION may consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.~~

~~08-09-LG~~

Q 3.3-20

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.1.9	-------------------NOTE------------------- Verification of setpoint is not required. -- Perform TADOT.	92 days B
SR 3.3.1.10	-------------------NOTE------------------- This Surveillance shall include verification that the time constants are adjusted to the prescribed values. -- Perform CHANNEL CALIBRATION.	~~18~~ 24 months B DC ALL-005
SR 3.3.1.11	-------------------NOTES------------------- 1. Neutron detectors are excluded from CHANNEL CALIBRATION. 2. This Surveillance shall include verification that the time constants are adjusted to the prescribed values. 3. Power and Intermediate Range detector plateau voltage verification is not required to be performed prior to entry in to MODE 2 or 1. -- Perform CHANNEL CALIBRATION.	3.3-125 3.3-07 ~~18~~ 24 months B DC ALL-005
SR 3.3.1.12	~~NOTE~~ ~~This Surveillance shall include verification of Reactor Coolant System resistance temperature detector bypass loop flow rate.~~ Perform CHANNEL CALIBRATION.	DC 3.3-Ed 3.3-101 ~~18~~ 24 months B DC ALL-005
SR 3.3.1.13	Perform COT.	~~18~~ 24 months DC ALL-005

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
		(continued)
SR 3.3.1.14	------NOTE------ Verification of setpoint is not required. ------ Perform TADOT.	~~18~~ 24 months DC ALL-001 B
SR 3.3.1.15	------NOTE------ Verification of setpoint is not required. ------ Perform TADOT.	------NOTE------ Only required when not performed within previous 31 days ------ Prior to reactor startup
SR 3.3.1.16	------NOTE------ Neutron detectors are excluded from response time testing. ------ Verify RTS RESPONSE TIME is within limits as specified in the FSAR update.	~~18~~ 24 months DC ALL-001 B on a STAGGERED TEST BASIS Q 3.3-55
SR 3.3.1.17	Perform ACTUATION LOGIC TEST.	~~18~~ 24 months ~~3.3-45~~ DC ALL-005

3.3-54

Table 3.3.1-1 (page 1 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT~~(a)~~ ED
1. Manual Reactor Trip	1.2	2	B	SR 3.3.1.14	NA	NA
	3(b). 4(b). 5(b)	2	C	SR 3.3.1.14	NA	NA
2. Power Range Neutron Flux						B-PS
a. High	1.2	4	D	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.7 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ ~~[111.2]~~ ~~111.1~~ 110.2% RTP	≤ 109% RTP DC ALL-005 B 3.3-55 3.3-55
b. Low	1(c).2	4	E	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ ~~[27.2]~~ ~~27.1~~ 26.2% RTP	≤ 25% RTP DC ALL-005 B
3. Power Range Neutron Flux Rate						B-PS DC ALL-005
a. High Positive Rate	1.2	4	E	SR 3.3.1.7 SR 3.3.1.11	≤ ~~[6.8]~~ ~~6.5~~ 5.6% RTP with time constant ≥ 2 sec	≤ 5% RTP with time constant ≥ 2 sec
b. High Negative Rate	1.2	4	E	SR 3.3.1.7 SR 3.3.1.11 ~~SR 3.3.1.16~~	≤ ~~[6.8]~~ ~~6.5~~ 5.6% RTP with time constant ≥ 2 sec	≤ 5% RTP with time constant ≥ 2 sec DC ALL-005 B
4. Intermediate Range Neutron Flux	1(c). 2(d)	2	F.G	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11	≤ ~~[31]~~ ~~30.9~~ 30.6% RTP	≤ 25% RTP DC ALL-005 B-PS
	~~2(e)~~	~~2~~	~~H~~	~~SR 3.3.1.1~~ ~~SR 3.3.1.8~~ ~~SR 3.3.1.11~~	~~≤ [31] % RTP~~	~~≤ 25% RTP~~ 3.3-95

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(b) With ~~Reactor Trip Breakers (RTBs) closed and~~ Rod Control System capable of rod withdrawal or ~~all~~ one or more rods not fully inserted. 3.3-122

TR 3.3-006

Table 3.3.1-1 (page 3 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
8. Pressurizer Pressure						B-PS DC ALL-005
a. Low	1(g)	4	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[1886]~~ ~~1944.4~~ 1947.5 psig	≥ ~~[1900]~~ 1950 psig
b. High	1,2	4	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≤ ~~[2396]~~ ~~2390.6~~ 2387.5 psig	B ≤ 2385 psig 3.3-55 Q 3.3-55 DC ALL-005
9. Pressurizer Water Level – High	1(g)	3	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≤ ~~[93.8]~~ ~~92.5%~~ 90.2	B- ≤ ~~92%~~ 90 DC ALL-005
10. Reactor Coolant Flow – Low	1(g)	3 per loop	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~(89.2)~~ 89.8 %(l) of MMF/loop	≥ ~~[90]%~~(l) ≥ ~~[90]%~~ Q 3.5-55 B- 3.3-09 3.3-42 Q 3.3 d GEN
~~a. Single Loop~~	~~1(h)~~	~~3 per loop~~	~~M~~	~~SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 SR 3.3.1.16~~	~~≥ [89.2] %~~	
~~b. Two Loops~~	~~1(i)~~	~~3 per loop~~	~~M~~	~~SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 SR 3.3.1.16~~	~~≥ [89.2] %~~	~~≥ [90]%~~

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(g) Above the P-7 (Low Power Reactor Trips Block) interlock.

~~(h) Above the P-8 (Power Range Neutron Flux) interlock.~~ 3.3-42

~~(i) Above the P-7 (Low Power Reactor Trips Block) interlock and below the P-8 (Power Range Neutron Flux) interlock.~~ 3.3-42

(l) Minimum measured flow (MMF) is 89,800 gpm per loop for Unit 1 and 90,625 gpm per loop for Unit 2. DC 3-3-Ed 3.3-09

Table 3.3.1-1 (page 4 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT ~~(a)~~
11. Reactor Coolant Pump (RCP) Breaker Position	1(g)	1 per RCP	M	SR 3.3.1.14	NA	3.3-103 NA
~~a. Single Loop~~	~~1(h)~~	~~1 per RCP~~	~~O~~	~~SR 3.3.1.14~~	~~NA~~	~~NA~~
~~b. Two Loops~~	~~1(i)~~	~~1 per RCP~~	~~M~~	~~SR 3.3.1.14~~	~~NA~~	~~NA~~
12. Undervoltage RCPs	1(g)	~~[3]~~ 2 per bus	M	SR 3.3.1.9 SR 3.3.1.10 ~~SR 3.3.1.15~~	7877 ≥ ~~[4760]~~ ~~7730~~ V-each bus 3.3-55 Q 3.3-55	B-PS DC ALL-005 ≥ ~~[4830]~~ 8050 V-each bus B-PS B
13. Underfrequency RCPs	1(g)	3 per bus	M	SR 3.3.1.9 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[57.1]~~ 53.9 Hz-each bus	≥ ~~[57.5]~~ 54.0 Hz-each bus B-PS
14. Steam Generator (SG) Water Level – Low Low	1,2	~~[4]~~ 3 per SG	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 ~~SR 3.3.1.16~~	≥ ~~[30.4]~~ ~~6.8%~~ 7.0	≥ ~~[32.3]~~ 7.2% DC ALL-005 3.3-46
a Trip Time Delay (TTD) from ~~Coincident~~ with						
~~a)~~ RCS Loop ΔT equivalent to power ~~≤ 50% RTP with a time delay (TD)~~.	1,2	4 (1/loop)	X	SR 3.3.1.7 SR 3.3.1.10	TTD for RCS loop ΔT variable input ≤ ~~51.5%~~ 50.7% RTP ≤ (1.01) TD (Note 3) and for RCS loop ΔT variable input > ~~51.5~~ 50.7% RTP TTD=0	TTD Q3.3-46 for RCS loop ΔT variable input ≤50% ≤ TD (Note 3) and for RCS loop ΔT variable input > 50% RTP TTD=0
~~OR~~						
~~b) RCS Loop ΔT equivalent to power > 50% RTP with no time delay.~~	~~1~~	~~4(1/loop)~~	~~X~~	~~SR 3.3.1.7 SR 3.3.1.10~~		

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
18. Reactor Trip System Interlocks						
a. Intermediate Range Neutron Flux, P-6	2(e)	2	S	SR 3.3.1.11 SR 3.3.1.13	≥ ~~6~~ 8E-11 amp	B DC ALL-005 ≥ 1E-10 amp 3.3-54
b. Low Power Reactor Trips Block, P-7	1	1 per train	T	~~NA~~ SR 3.3.1.17 ~~SR 3.3.1.11~~ ~~SR 3.3.1.13~~	NA	Q 3.3-54 ~~NA~~ ~~3.3-44~~ B-PS
c. Power Range Neutron Flux, P-8	1	4	T	SR 3.3.1.11 SR 3.3.1.13	≤ ~~[50.2]~~ ~~37.1~~ 36.2% RTP Q 3.3-44	DC ALL-005 ≤ ~~[48]~~ 35% RTP ~~3.3-44~~ B-PS
Remove Strike Out						
d. Power Range Neutron Flux, P-9	1	4	T	SR 3.3.1.11 SR 3.3.1.13	≤ ~~[52.2]~~ ~~52.1~~ 51.2% RTP	B DC ALL-005 ≤ 50% RTP B-PS
e. Power Range Neutron Flux, P-10	1,2	4	S	SR 3.3.1.11 SR 3.3.1.13	≥ ~~[7.8]~~ ~~7.1~~ 8.8% RTP and ≤ ~~[12.2]~~ ~~12.1~~ 11.2% RTP	B ~~3.3-44~~ DC ALL-005 ≥ 10% RTP B B-PS
f. Turbine Impulse Chamber Pressure, P-13	1	2	T	~~[SR 3.3.1.1]~~ SR 3.3.1.10 SR 3.3.1.13	≤ ~~[12.2]~~ ~~12.1~~ 10.2% RTP turbine ~~power~~ impulse pressure equivalent	PS DC ALL-005 ≤ 10% RTP turbine ~~power~~ impulse pressure equivalent

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(e) Below the P-6 (Intermediate Range Neutron Flux) interlocks.

(j) Above the P-9 (Power Range Neutron Flux) interlock.

Table 3.3.1-1 (page ~~6~~8 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	E TRIP SETPOINT ~~(a)~~
19. Reactor Trip Breakers[k] (RTBs)	1,2	2 trains	R	SR 3.3.1.4	NA	NA
	$3^{(b)}$, $4^{(b)}$, $5^{(b)}$	2 trains	C	SR 3.3.1.4	NA	NA TR 3.3-006
20. Reactor Trip Breaker Undervoltage and Shunt Trip Mechanisms[k]	1,2	1 each per RTB	U	SR 3.3.1.4	NA	NA
	$3^{(b)}$, $4^{(b)}$, $5^{(b)}$	1 each per RTB	C	SR 3.3.1.4	NA	3.3-124 NA
21. Automatic Trip Logic	1,2	2 trains	Q	SR 3.3.1.5	NA	NA
	$3^{(b)}$, $4^{(b)}$, $5^{(b)}$	2 trains	C	SR 3.3.1.5	NA	NA
22. Seismic Trip	1,2	3 directions (x,y,z) in 3 locations	W	SR 3.3.1.12 SR 3.3.1.14 ~~SR 3.3.1.15~~ SR 3.3.1.5	≤ ~~0.40~~ 0.43	3.3-45 ≤ 0.35g DC ALL-005

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

(b) With ~~RTBs closed and~~ Rod Control System capable of rod withdrawal or ~~all~~ one or more rods not fully inserted. TR 3.3-006 3.3-122

(k) Including any reactor trip bypass breakers that are racked in and closed for bypassing an RTB.

Table 3.3.1-1 (page ~~7~~9 of ~~8~~10)
Reactor Trip System Instrumentation

Note 1: Overtemperature ΔT

The Overtemperature ΔT Function Allowable Value shall not exceed the following Trip Setpoint by more than ~~[3.8]~~ ~~1.9~~ 0.46% of ΔT span for hot leg or cold leg temperature inputs, 0.14% ΔT span for pressurizer pressure input, 0.19% ΔT span for ΔI inputs. B-PS 3.3-110 DC ALL-005 ~~3.3-10~~

$$\Delta T\frac{(1+\tau_4 s)}{(1+\tau_5 s)} \le \Delta T_0 \left\{K_1 - K_2\frac{(1+\tau_1 s)}{(1+\tau_2 s)}\left[T - T'\right] + K_3(P-P') - f_1(\Delta I)\right\}$$

Q 2-05(2.0) 3.3-113

3.3-110 3.3-13 DC ALL-005

Where: ΔT is measured RCS ΔT, °F.
ΔT_0 is the indicated ΔT at RTP, °F. loop specific
s is the Laplace transform operator, sec^{-1}.
T is the measured RCS average temperature, °F.
T' is the nominal T_{avg} at RTP, ≤ ~~[588]~~ 576.6 (Unit 1) & 577.6 (Unit 2)°F. loop specific indicated B-PS 3.3-110

P is the measured pressurizer pressure, psig
P' is the nominal RCS operating pressure, ~~≥~~ = 2235 psig ED B

K_1 ~~≥~~ = ~~[1.09]~~ 1.20 K_2 ~~≥~~ = ~~[0.0138]~~ 0.0182/°F K_3 = ~~[0.000671]~~ 0.000831/psig B-PS
τ_1 ~~≥~~ = ~~[8]~~ 30 sec τ_2 ~~≤~~ = ~~[3]~~ 4 sec ~~τ_3 ≤ [2] sec~~ 3.3-10
τ_4 ~~≥~~ = ~~[33]~~ 0 sec τ_5 ~~≤~~ = ~~[4]~~ 0 sec ~~τ_6 ≤ [2] sec~~ B

$f_1(\Delta I)$ = ~~-0.0126~~ 0.0275{~~35~~ 19 + $(q_t - q_b)$} when $q_t - q_b \le$ - ~~[35]~~19% RTP B-PS
0% of RTP when -~~[35]~~19% RTP < $q_t - q_b$ ≤ 7% RTP 3.3-10
~~-0.0105~~ 0.0238{$(q_t - q_b)$ - 7} when $q_t - q_b$ > 7% RTP B

Where q_t and q_b are percent RTP in the upper and lower halves of the core, respectively, and $q_t + q_b$ is the total THERMAL POWER in percent RTP.

Strike out inequalities & insert equal signs

Q 3.3-108
Q 2-04(2.0)

Table 3.3.1-1 (page ~~8~~10 of ~~8~~10)
Reactor Trip System Instrumentation

Note 2: Overpower ΔT

The Overpower ΔT Function Allowable Value shall not exceed the following Trip Setpoint by more than ~~[3]~~ ~~1.0~~ 0.46% of ΔT span. for hot leg or cold leg temperature inputs. DC ALL-005 3.3-110 B-PS 3.3-10

$$\Delta T\frac{(1+\tau_4 s)}{(1+\tau_5 s)} \leq \Delta T_O\left\{K_4 - K_5\frac{\tau_3 s}{1+\tau_3 s}T - K_6\left[T - T''\right] - f_2(\Delta I)\right\}$$ 3.3-13

Where: ΔT is measured RCS ΔT, °F. loop specific
ΔT_0 is the indicated ΔT at RTP, °F. DC ALL-005
s is the Laplace transform operator, sec^{-1}.
T is the measured RCS average temperature, °F.
T″ is the nominal loop specific indicated T_{avg} at RTP, ≤ ~~[588]~~ 576.6 (Unit 1) & 577.6 (Unit 2)°F. 3.3-110

K_4 = ~~[1.09]~~ 1.072 K_5 = ~~[0.02]~~ 0.0174/°F for increasing T_{avg} K_6 = ~~[0.00128]~~ 0.00145/°F when T > T″ B-PS

0/°F for decreasing T_{avg} 0/°F when T ≤ T″

~~τ_1 ≥ [8] sec~~ ~~τ_2 ≤ [3] sec~~ τ_3 = ~~[2]~~10 sec 3.3-13
τ_{4} = ~~[2]~~0 sec τ_{5} = ~~[10]~~0 sec 3.3-10

Strike out inequalities and insert equal signs

$f_2(\Delta I)$ = 0% RTP for all ΔI. Q 2-04(2.0)

Note 3: Steam Generator Water Level Low-Low Trip Time Delay 3.3-108 3.3-46

TD = $B1(P)^3$ + $B2(P)^2$ + B3(P) + B4

Where: P = RCS Loop ΔT Equivalent to Power (%RTP), P ≤ 50% RTP

TD = Time delay for Steam Generator Water Level Low-Low Reactor Trip (in seconds).

B1 = -0.007128

B2 = +0.8099

B3 = -31.40

B4 = +464.1

SURVEILLANCE REQUIREMENTS

other than ESFAS RESPONSE TIME verification,

3.3-55

Q 3.3-55

NOTE

Refer to Table 3.3.2-1 to determine which SRs apply for each ESFAS Function.

ESFAS RESPONSE TIME verification is specified in SR 3.3.2.10.

SURVEILLANCE		FREQUENCY
SR 3.3.2.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.2.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.3	NOT USED ~~NOTE~~ ~~The continuity check may be excluded.~~ ~~Perform ACTUATION LOGIC TEST.~~	3.3-60 ~~31 days on a STAGGERED TEST BASIS~~
SR 3.3.2.4	Perform MASTER RELAY TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.5	Perform COT.	92 days
SR 3.3.2.6	Perform SLAVE RELAY TEST.	~~[92] days~~ ~~18~~ 24 months B-PS DC ALL-005

(continued)

SR 3.3.2.7	Not Used ~~NOTE~~ ~~Verification of relay setpoints not required.~~ ~~Perform TADOT.~~	3.3-60 ~~[92] days~~

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.3.2.8	------------------NOTE------------------ Verification of setpoint not required for manual initiation functions. -- Perform TADOT.	DC ALL-001 9 ~~18~~ 24 months B
SR 3.3.2.9	------------------NOTE------------------ This Surveillance shall include verification that the time constants are adjusted to the prescribed values. -- Perform CHANNEL CALIBRATION.	9 ~~18~~ 24 DC ALL-005 months B
SR 3.3.2.10	------------------NOTE------------------ Not required to be performed for the turbine driven AFW pump until 24 hours after SG pressure is ≥ ~~[1000]~~ 650 psig. -- Verify ESFAS RESPONSE TIMES are within limits specified in the FSAR update.	B B-PS DC ALL-001 9 ~~18~~ 24 months on a STAGGERED TEST BASIS 3.3-55 9 3.3-55

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.2.11	-------------------NOTE------------------- Verification of setpoint not required. -- Perform TADOT.	3.3-61 (24) DC ALL-001 ~~Once per reactor trip breaker cycle~~ 18 months
SR 3.3.2.12	Peform ACTUATION LOGIC TEST	24 months 3.3-29 DC ALL-002
SR 3.3.2.13	--------NOTE-------- Verification of setpoint not required for manual initiation functions. ------------------ Perform TADOT.	3.3-139 18 months DC ALL-001

Table 3.3.2-1 (page 1 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
1. Safety Injection						
a. Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA	NA
b. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
c. Containment Pressure - High ~~1~~	1,2,3,4	3	~~D~~ E	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[3.86]~~ ~~3.3~~ 3.12 psig	3.3-66 B-PS Q 3.3-66 DC ALL-005 ≤ ~~[3.6]~~ 3.0 psig DC ALL-005
d. Pressurizer Pressure - Low	1,2,3(b)	~~[3]~~ 4	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[1839]~~ ~~1844.4~~ 1847.5 psig	B B-PS 1850 psig 3.3-55 Q 3.3-55
e. Steam Line Pressure						
(1) Low	1,2,3 (b)	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[635]~~ ~~594.6~~(c) 597.6 psig	≥ ~~[675]~~ 600(c) psig DC ALL-005 B-PS
(2) NOT USED ~~High Differential Pressure Between Steam Lines~~	~~1,2,3~~	~~3 per steam line~~	~~D~~	~~[SR 3.3.2.1]~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≤ [106] psig~~	3.3-01 ~~≤ [97] psig~~
f. NOT USED ~~High Steam Flow in Two Steam Lines~~	~~1,2,3(d)~~	~~2 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~(e)~~	3.3-01 ~~(f)~~
~~Coincident with T_{avg} - Low Low~~	~~1,2,3(d)~~	~~1 per loop~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [550.6]°F~~	~~≥ [553]°F~~

Table 3.3.2-1 (page ~~2~~3 of 8~~11~~)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
~~1. Safety Injection (continued)~~						3.3-01
g. NOT USED ~~High Steam Flow in Two Steam Lines~~	~~1,2,3(d)~~	~~2 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~(e)~~	~~(f)~~
~~Coincident with Steam Line Pressure—Low~~	~~1,2,3(d)~~	~~1 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [635](c) psig~~	~~≥ [675] psig~~
2. Containment Spray						3.3-53
a. Manual Initiation	1,2,3,4	2 ~~per train~~ with 2 ~~trains~~ coincident switches	B	SR 3.3.2.8	NA	NA
b. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
c. Containment Pressure				3.3-114 Q 3.3-66		3.3-66 B-PS DC ALL-005
~~High — 3 (High High)~~	1,2,3,4	4	~~E~~ P	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[12.31]~~ ~~22.3~~ 22.12 psig	≤ ~~[12.05]~~ 22 psig 3.3-55 Q 3.3-55
NOT USED ~~High — 3 (Two Loop Plants)~~	~~1,2,3~~	~~[3] sets of [2]~~	~~E~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≤ [12.31] psig~~	3.3-01 ~~≤ [12.05] psig~~

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

~~(c) Time constants used in the lead/lag controller are t_1 ≥ seconds and t_2 ≤ seconds~~ B

~~(d) Above the P-12 (T_{avg} — Low Low) interlock.~~

~~(e) Less than or equal to a function defined as ΔP corresponding to [44]% full steam flow below [20]% load, and ΔP increasing linearly from [44]% full steam flow at [20]% load to [114]% full steam flow at [100]% load, and ΔP corresponding to [114]% full steam flow above 100% load.~~ 3.3-01

~~(f) Less than or equal to a function defined as ΔP corresponding to [40]% full steam flow between [0]% and [20]% load and then a ΔP increasing linearly from [40]% steam flow at [20]% load to [110]% full steam flow at [100]% load.~~ 3.3-01 3.3-01

Table 3.3.2-1 (page ~~3~~4 of 811)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
3. Containment Isolation						
a. Phase A Isolation						
(1) Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
(3) Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					
b. Phase B Isolation						3.3-53
(1) Manual Initiation	1,2,3,4	2 ~~per train~~with, 2 ~~trains~~ coincident switches	B	SR 3.3.2.8	NA	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
(3) Containment Pressure ~~High - 3 (High High)~~	1,2,3,4	4	E P	3.3-114 3.3-66 SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	DC ALL-005 22.12 ≤ ~~[12.31]~~ ~~22.5~~ psig	B-PS 3.3-66 3.3-55 3.3-55 ≤ ~~[12.05]~~ 22 psig
4. Steam Line Isolation						3.3-58 PS
a. Manual Initiation	1,2$^{(i)}$,3$^{(i)}$	2 1/valve	~~F~~ N	SR 3.3.2.8	NA	NA

Table 3.3.2-1 (page 45 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT~~(a)~~	
							ED
4. Steam Line Isolation (continued)							B-PS B 3.3-137
c. Containment Pressure - High ~~2~~ High	1,2(i), 3(i)	4	~~D~~E	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[6.61]~~ ~~22.9~~ psig 22.12	≤ ~~[6.35]~~ 22.0 psig	~~3.3-55~~ Q3-3-55 DC ALL-005
d. Steam Line Pressure							B-PS
(1) Low	1,2(i), 3(b)(i)	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[635]~~ ~~594.6~~ 597.2 (c) psig	≥ ~~[675]~~ 600(c) psig	
(2) Negative Rate - High	3(g)(i)	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[121.6]~~ ~~105.4~~ 102.4 (h) psi/sec	≤ ~~[110]~~100 (h) psi/sec	B-PS DC ALL-005
e. NOT USED ~~High Steam Flow in Two Steam Lines~~	~~1,2(i), 3(i)~~	~~2 per steam line~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~(e)~~	~~(f)~~	3.3-01
~~Coincident with T_{avg} - Low Low~~	~~1,2(i), 3(d)(i)~~	~~1 per loop~~	~~D~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [550.6]°F~~	~~≥ [553]°F~~	

(continued)

Q3-3-63

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ — ED

(b) Above the P-11 (Pressurizer Pressure) interlock ~~Trip function may be blocked in this MODE below the P-11 (pressurizer interlock) setpoint.~~ and below the P-11 interlock unless blocked — 3.3-63

(c) Time constants used in the lead/lag ~~controller~~ compensator are $t_1 \geq 50$ seconds and $t_2 \leq 5$ seconds — B, 3.3-105

~~(d) Above the P-12 (T_{avg} - Low Low) interlock.~~ — 3.3-01

~~(e) Less than or equal to a function defined as ΔP corresponding to [44]% full steam flow below [20]% load, ΔP increasing linearly from [44]% full steam flow at [20]% load to [114]% full steam flow at [100]% load, and ΔP corresponding to [114]% full steam flow above 100% load.~~ — 3.3-01

~~(f) Less than or equal to a function defined as ΔP~~ — 3.3-01

Q 3.3-63

DC ALL-005

delete Strike Out

Q 3.3-63

~~corresponding to [40]% full steam flow between [0]% and [20]% load and then a ΔP increasing linearly from [40]% steam flow at [20]% load to [110]% full steam flow at [100]% load.~~

(g) ~~Below the P-11 (Pressurizer Pressure) interlock.~~ ~~Trip function automatically blocked above P-11 (Pressurizer Pressure Interlock) setpoint and is automatically~~ blocked below P-11 when Safety Injection on Steam Line Pressure Low is not blocked. 3.3-63

(h) Time constant utilized in the rate/lag ~~controller~~ compensator ~~is ≤ [50] seconds.~~ are t_3 = 50 sec and t_4 = 50 sec. 3.3-105

DC AL-005

(i) Except when all MSIVs are closed and de-activated. B

However, maybe

Q3.3-63

Table 3.3.2-1 (page ~~6~~7 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT ~~(a)~~
5. Turbine Trip and Feedwater Isolation						PS
a. Automatic Actuation Logic and Actuation Relays	1,2$^{(j)}$, ~~[3]~~ ~~(j)~~	2 trains	H ~~[G]~~	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
b. SG Water Level – High High (P-14)	1,2$^{(j)}$, ~~[3]~~ ~~(j)~~	3 per SG	J ~~[D]~~	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≤ ~~[84.2]~~ ~~75.5%~~ 75.2	B B-PS Q 3.3-127 ≤ ~~[82.4]~~ 75% DC ALL-005
c. Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					DCALL-001 3.3-58 3.3-139
6. Auxiliary Feedwater						
a. Manual	1,2,3	1 sw/pp	N	SR 3.3.2.8 13	NA	NA
~~a~~ b. Automatic Actuation Logic and Actuation Relays (Solid State Protection System)	1,2,3	2 trains	G	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA 3.3-55 Q 3.3-55
c. NOT USED ~~b. Automatic Actuation Logic and Actuation Relays (Balance of Plant ESFAS)~~	~~1,2,3~~	~~2 trains~~	~~G~~	~~SR 3.3.2.3~~	~~NA~~	3.3-01 ~~NA~~
~~c~~d. SG Water Level – Low Low	1,2,3 ~~(k)~~	3 per SG	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[30.4]~~ ~~6.8%~~ 7.0	DC ALL-005 B-PS B 3.3-46 Q 3.3-46 ≥ ~~[32.2]~~ 7.2%

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT ~~(a)~~
~~Coincident with:~~						3.3-46 Q3.3-46
~~1)~~ RCS Loop ΔT Equivalent to Power ~~< 50% RTP~~ e	~~1, 2~~ e	~~4(1/loop)~~	~~D~~	~~SR 3.3.2.5 SR 3.3.2.9~~ e	for RCS Loop ΔT Variable input ≤ ~~51.5%~~ 50.7% RTP DC ALL-005	for RCS Loop ΔT variable input ≤ 50% RTP Q3.3-46
With a Trip Time Delay (TTD) from	1, 2, 3	4 (1/loop)	M	SR 3.3.2.5 SR 3.3.2.9	TTD ≤ (1.01) TD ~~(l)~~ e and for	(l)(k) Q3.3-46 TTD ≤ TD ~~(l)~~ and for
~~OR~~ e						
~~2) RCS Loop ΔT Equivalent to Power > 50% RTP~~ e	~~1, 2~~	~~4(1/loop)~~	~~D~~	~~SR 3.3.2.5 SR 3.3.2.9~~	RCS Loop ΔT variable input > ~~51.5%~~ 50.7% RTP DC ALL-005	RCS Loop ΔT variable input > 50% RTP
~~With no time delay~~	~~1, 2~~	~~4(1/loop)~~	~~M~~	~~SR 3.3.2.5 SR 3.3.2.9~~	TTD=0	TTD=0 Q3.3-46

Move row

(continued)

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ EC

(j) Except when all MFIVs, MFRVs, and associated bypass valves are closed and de-activated or isolated by a closed manual valve. B

(k) For Mode 3, the Trip Time Delay associated with the Steam Generator Water Level-Low-Low channel must be less than or equal to 464.1 seconds. 3.3-46

(l) Steam Generator Water Level Low-Low Trip Time Delay 3.3-46

$TD = B1(P)^3 + B2(P)^2 + B3(P) + B4$

Where: P = RCS Loop ΔT Equivalent to Power (%RTP), P ≤ 50% RTP

TD = Time delay for Steam Generator Water Level Low-Low (in seconds)

B1 = -0.007128

B2 = +0.8099

B3 = -31.40

B4 = +464.1

Table 3.3.2-1 (page ~~7~~9 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
6. Auxiliary Feedwater (continued)						
~~d~~e. Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					
~~e~~f. NOT USED ~~Loss of Offsite Power~~	~~1,2,3~~	~~[3] per bus~~	~~F~~	~~SR 3.3.2.7~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [2912] V with ≤ 0.8 sec time delay~~	3.3-01 ~~≥ [2975] V with ≤ 0.8 sec time delay~~
~~f~~g. Undervoltage Reactor Coolant Pump	1,~~2~~	~~[3]~~ 2 per bus	I	SR 3.3.2.~~7~~8 SR 3.3.2.9 ~~SR 3.3.2.10~~	≥ ~~[69] %~~ ~~bus voltage~~ 7730 volts 7877	B-PS 3.3-127 ~~3.3-55~~ 3.3-55 ≥ ~~[70]% bus voltage~~ 8050 volts DC ALL-005 3.3-116
~~g~~h. NOT USED ~~Trip of all Main Feedwater Pumps~~	~~1,2~~	~~[2] per pump~~	~~J~~	~~SR 3.3.2.8~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [ ] psig~~	~~≥ [ ] psig~~
~~h~~i. NOT USED ~~Auxiliary Feedwater Pump Suction Transfer on Suction Pressure - Low~~	~~1,2,3~~	~~[2]~~	~~F~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.7~~ ~~SR 3.3.2.9~~	~~≥ [20.53] [psia]~~	3.3-01 ~~≥ [ ] [psia]~~
7. ~~Automatic Switchover to Containment Sump~~						3.3-01 DC ALL-002
~~a. Automatic Actuation Logic and Actuation Relays~~	~~1,2,3,4~~	~~2 trains~~	~~C~~	~~SR 3.3.2.2~~ ~~SR 3.3.2.4~~ ~~SR 3.3.2.6~~	~~NA~~	~~NA~~

Table 3.3.2-1 (page ~~8~~11 of ~~8~~11)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	ED TRIP SETPOINT~~(a)~~
7. NOT USED~~Automatic Switchover to Containment Sump (continued)~~						3.3-01
~~c. RWST Level - Low Low~~	~~1,2,3,4~~	4	~~K~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [15]%~~	~~≥ [18]%~~
~~Coincident with Safety Injection~~	~~Refer to Function 1 (Safety Injection) for all initiation functions and requirements.~~					
~~and~~						
~~Coincident with Containment Sump Level - High~~	~~1,2,3,4~~	4	~~K~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [30] in. above el. [703] ft~~	~~≥ [ ] in. above el. [ ]ft~~
8. ESFAS Interlocks						
a. Reactor Trip, P-4	1,2,3	1 per train, 2 trains	F	SR 3.3.2.11	NA	NA
		Remove Strike Out			Q 3.3-44	3.3-15 ~~3.3-44~~ B-PS
b. Pressurizer Pressure, P-11	1,2,3	[illegible]	L	~~SR 3.3.2.1~~ SR 3.3.2.5 SR 3.3.2.9	≤ ~~[1996]~~ ~~1920.6~~ psig 1917.5	DC ALL-005 ≤ ~~[ ]~~ 1915 psig
						3.3-01
c. NOT USED~~T_{avg} - Low Low, P-12~~	~~1,2,3~~	~~[1] per loop~~	~~L~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~	~~≥ [550.6]°F~~	~~≥ [553]°F~~

~~(a) Reviewer's Note: Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ ED

SR 3.3.3.2	~~NOTE~~ ~~1. Neutron detectors are excluded from CHANNEL CALIBRATION.~~ ~~2. CHANNEL CALIBRATION for Containment Area Radiation may consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.~~ Perform CHANNEL CALIBRATION.	~~18~~ 24 months	Q 8-11 3.3-109 ~~3.3-20~~ Q 3.3-20 DC All-005 B
SR 3.3.3.3	Perform CHANNEL CALIBRATION for Hydrogen Monitors.	92 days	3.3-112 Q 12-05(3.6)

3.3 INSTRUMENTATION

3.3.4 Remote Shutdown System

LCO 3.3.4 The Remote Shutdown System ~~Instrumentation~~ Functions ~~and the SD panel controls~~ in Table 3.3.4-1 shall be OPERABLE.

~~3.3-84~~ 3.3-94

APPLICABILITY: MODES 1, 2 and 3.

ACTIONS

-------------------------------NOTES-------------------------------

1. LCO 3.0.4 is not applicable.
2. Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required Functions inoperable.	A.1 Restore required Function to OPERABLE status.	30 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	6 hours 12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.4.1	---NOTE--- ~~Reactor Trip Breaker position is excluded from CHANNEL CHECK.~~ --- Perform CHANNEL CHECK for each required instrumentation channel ~~that is normally energized~~.	~~3.3-22~~ B Q 3.3-22 31 days 3.3-69
SR 3.3.4.2	Verify each required control circuit and transfer switch is capable of performing the intended function.	~~18~~ 24 months B DC ALL-005
SR 3.3.4.3	---NOTE--- ~~Neutron detectors are excluded from CHANNEL CALIBRATION~~Reactor Trip Breaker position is excluded from CHANNEL CALIBRATION. --- Perform CHANNEL CALIBRATION for each required instrumentation channel.	3.3-84 3.3-22 ~~18~~ 24 months B DC ALL-005
~~SR 3.3.4.4~~	~~Perform TADOT of the reactor trip breaker open/closed indication.~~	~~18 months~~

3.3-128

Table 3.3.4-1 (page 1 of ~~2~~1)
Remote Shutdown System Instrumentation and Controls

~~NOTE~~

~~Reviewer's Note: This table is for illustration purposes only. It does not attempt to encompass every Function used at every unit, but does contain the types of Functions commonly found.~~

ED

FUNCTION/INSTRUMENT OR CONTROL PARAMETER	REQUIRED NUMBER OF FUNCTIONS
1. ~~Reactivity Control~~	Q 3.3-128
~~a. Source Range Neutron Flux~~	~~[1]~~
~~b.~~ Reactor Trip Breaker Position	1 per trip breaker
	B
~~c. Manual Reactor Trip~~	~~[2]~~
2. ~~Reactor Coolant System (RCS) Pressure Control~~	
~~a.~~ Pressurizer Pressure ~~or RCS Wide Range Pressure~~	1
~~b. Pressurizer Power Operated Relief Valve (PORV) Control and Block Valve Control~~	~~[1, controls must be for PORV & block valve on same line)~~
3. ~~Decay Heat Removal via Steam Generators (SGs)~~	
~~a.~~ RCS Hot Leg Temperature (loop 1 only)	1 ~~per loop~~ Q7-01
4. ~~b.~~ RCS Cold Leg Temperature (loop 1 only)	1 ~~per loop~~
5. ~~c.~~ AFW Controls ~~Condensate Storage Tank Level~~	~~[1]~~2 of any 3 AFW pumps Q 3.3-128
6 ~~d.~~ SG Pressure	1 per SG
9 ~~f.~~ Condensate Storage Tank Level	1
~~4. RCS Inventory Control~~	
10 ~~a.~~ Pressurizer Level	1
11 ~~b.~~ Charging Pump Controls	~~[1]~~2 of 2 pumps
12 ~~c.~~ Charging Flow	1
~~5. Safety Support Systems~~	
13 ~~a.~~ Emergency Diesel Generator Control	3 of 3 diesel generators
14 ~~b.~~ Component Cooling Water Control	any 2 of 3 pumps
15 ~~c.~~ Auxiliary Saltwater Control	2 of 2 pumps
7 SG Level	1 per SG
8 AFW Flow	1 per SG Q 7-10

SURVEILLANCE REQUIREMENTS

other than ESFAS CVI RESPONSE TIME verification

---NOTE---
Refer to Table 3.3.6-1 to determine which SRs apply for each Containment Ventilation ~~Purge and~~ Exhaust Isolation Function. PS DC 3.3-Ed

ESFAS CVI RESPONSE TIME verification is specified in SR 3.3.6.8. Q 3.3-55

SURVEILLANCE		FREQUENCY
SR 3.3.6.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.6.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.6.3	Perform MASTER RELAY TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.6.4	Perform ~~COT~~ CFT.	3.3-75 92 days
SR 3.3.6.5	Perform SLAVE RELAY TEST.	~~[92] days~~ ~~18~~ 24 months B-PS DC ALL-005
SR 3.3.6.6	NOT USED ~~NOTE~~ ~~Verification of setpoint is not required.~~ ~~Perform TADOT.~~	3.3-76 ~~[18] months~~
SR 3.3.6.7	Perform CHANNEL CALIBRATION.	~~18~~ 24 months DC-ALL-005 DC 3.3-Ed B PS
SR 3.3.6.8	Verify ESF Containment Ventilation ~~Purge and~~ Exhaust Isolation RESPONSE TIME is ~~response time is~~ within limits as specified in the FSAR update.	~~18~~ 24 months on a STAGGERED TEST BASIS DC ALL-005 3.3-31 3.3-55 Q 3.3-55

BASES

BACKGROUND

Signal Process Control and Protection System (continued)

prevent the protection function actuation. These requirements are described in IEEE-279-1971 (Ref. 4). The actual number of channels required for each unit parameter is specified in Reference 1.

Two logic channels are required to ensure no single random failure of a logic channel will disable the RTS. The logic channels are designed such that testing required while the reactor is at power may be accomplished without causing a trip. INSERT BASES (1) Q3.3.6-1 DC 3.3-005 Insert DC3.2-Ed

Trip Setpoints and Allowable Values

two sided tolerance CA 3.3-014

The Trip Setpoints are the nominal values at which the bistables are set. Any bistable is considered to be properly adjusted when the "as left" value is within the band for CHANNEL CALIBRATION ~~accuracy~~ tolerance ~~(i.e., ± rack calibration + comparator setting accuracy)~~. INSERT B 3.3.1 BKG(B) DC ALL-005

The Trip Setpoints used in the bistables are based on the analytical limits stated in Reference 1. The selection of these Trip Setpoints is such that adequate protection is provided when all sensor and processing time delays are taken into account. To allow for calibration tolerances, instrumentation uncertainties, instrument drift, and severe environment errors for those RTS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 5), the Trip Setpoints and Allowable Values specified in Table 3.3.1-1 in the accompanying LCO are conservatively adjusted with respect to the analytical limits. A detailed description of the methodology used to calculate the Trip Setpoints, including their explicit uncertainties, is provided in the ~~"RTS/ESFAS Setpoint Methodology~~ ~~Study"~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagel 21 Version," May 1993 (Ref. 6). The actual nominal Trip Setpoint entered into the bistable is more conservative than that specified by the Allowable Value to account for changes in random measurement errors detectable by a COT. One example of such a change in measurement error is drift during the surveillance interval. If the measured setpoint does not exceed the Allowable Value, the bistable is considered OPERABLE. Q3.3.G-1

INSERT B 3.3.1 BKG (D) DC ALL-005

(continued)

[illegible]

[illegible]

Insert for DC ALL-005

Enclosure 5B page B 3.3-4
Insert B 3.3.1 BKG (B)

The calibration tolerance, after conversion, should correspond to the rack comparator setting accuracy defined in the latest setpoint study.

Insert B 3.3.1 BKG (D)

Rack drift in excess of the Allowable Value exhibits the behavior that the rack has not met its allowance. Since there is a small statistical chance that this will happen, an infrequent excessive drift is expected. Rack or sensor drift in excess of the allowance that is more than occasional may be indicative of more serious problems and warrants further investigation. During surveillance, the as-found value of the trip setpoint is compared to its allowable value and if the trip setpoint is found outside its allowable value, the trip setpoint is reset within its as-left tolerance. If the trip setpoint cannot be set within its as-left tolerance, the channel is declared inoperable.

BASES

BACKGROUND (continued)

Trip Setpoints and Allowable Values

Setpoints in accordance with the Allowable Value ensure that SLs are not violated during AOOs (and that the consequences of DBAs will be acceptable, providing the unit is operated from within the LCOs at the onset of the AOO or DBA and the equipment functions as designed). Note that in the accompanying LCO 3.3.1, the ~~Trip Setpoints~~ Allowable Values of Table 3.3.1-1 are the LSSS as defined in 10 CFR 50.36 2-06(2.0)

Each channel of the process control equipment can be tested on line to verify that the signal or setpoint accuracy is within the specified allowance requirements ~~of Reference 2~~. Once a designated channel is taken out of service for testing, a simulated signal is injected in place of the field instrument signal, or in the case of the Power Range channels the test signal is added to the field instrument signal. The process equipment for the channel in test is then tested, verified, and calibrated. SRs for the channels are specified in the SRs section.

The Trip Setpoints and Allowable Values listed in Table 3.3.1-1 are based on the methodology described in Reference 6, which incorporates all of the known uncertainties applicable for each channel. The magnitudes of these uncertainties are factored into the determination of each Trip Setpoint. INSERT CA 3.3-014(a) CA 3.3-014 All field sensors and signal processing equipment for these channels are assumed to operate within the allowances of these uncertainty magnitudes.

INSERT B 3.3.1 BKG (C) DC ALL-005

Solid State Protection System

The SSPS equipment is used for the decision logic processing of outputs from the signal processing equipment bistables. To meet the redundancy requirements, two trains of SSPS, each performing the same functions, are provided. If one train is taken out of service for maintenance or test purposes, the second train will provide reactor trip and/or ESF actuation for the unit. If both trains are taken out of service or placed in test, a reactor trip will result. Each train is packaged in its own cabinet for physical and electrical separation to satisfy separation and independence requirements. The system has been designed to trip in the event of a loss of power, directing the unit to a safe shutdown condition.

(continued)

Insert for DC ALL-005

Enclosure 5B page B 3.3-5
Insert B 3.3.1 BKG (C)

Trip Setpoints may be administratively redefined in the conservative direction for several reasons including startup, testing, process error accountability, or even a conservative response for equipment malfunction or inoperability. Some trip functions have historically been redefined at the beginning of each cycle for purposes of startup testing, e.g. Power Range Neutron Flux High and Overtemperature ΔT. Calibration to within the defined calibration tolerance of an administratively redefined, conservative Trip Setpoint is acceptable. Redefinition at full power conditions for these functions is expected and acceptable.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.1.4

SR 3.3.1.4 is the performance of a TADOT every 31 days on a STAGGERED TEST BASIS. This test shall verify OPERABILITY by actuation of the end devices.

The RTB test shall include separate verification of the undervoltage and shunt trip mechanisms. Independent verification of RTB undervoltage and shunt trip Function is not required for the bypass breakers. No capability is provided for performing such a test at power. The independent test for bypass breakers is included in SR 3.3.1.14. The bypass breaker test shall include a local manual shunt trip only. A Note has been added to indicate that this test must be performed on the bypass breaker prior to placing it in service.

The Frequency of every 31 days on a STAGGERED TEST BASIS is adequate. It is based on industry operating experience, considering instrument reliability and operating history data.

DC ALL-005

SR 3.3.1.5

The seismic trip is tested every 31 days on a STAGGERED TEST BASIS.

SR 3.3.1.5 is the performance of an ACTUATION LOGIC TEST. The SSPS is tested every 31 days on a STAGGERED TEST BASIS, using the semiautomatic tester. The train being tested is placed in the bypass condition with the RTB bypass breaker installed, thus preventing inadvertent actuation. Through the semiautomatic tester, all possible logic combinations, with and without applicable permissives, are tested for each protection function including operation of the P-7 permissive which is a logic function only. The Frequency of every 31 days on a STAGGERED TEST BASIS is adequate. It is based on industry operating experience, considering instrument reliability and operating history data.

SR 3.3.1.6

SR 3.3.1.6 is a calibration of the excore channels to the incore channels. If the measurements do not agree, the excore channels are not declared inoperable but must be calibrated to agree with the incore detector measurements. If the excore channels cannot be adjusted, the channels are declared inoperable. This Surveillance is performed to verify the f(ΔI) input to the overtemperature ΔT Function.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.6 (continued)

A Note modifies SR 3.3.1.6. The Note states that this Surveillance is required only if reactor power is > ~~50~~ 75% RTP and that ~~[24]~~ 72 hours after ~~achieving equilibrium conditions with~~ thermal power is >75% RTP is allowed for performing the first surveillance ~~after reaching 50 75% RTP~~.

retain strike out   delete strike out   Q 3.3-06

The Frequency of 92 EFPD is adequate. It is based on industry operating experience, considering instrument reliability and operating history data for instrument drift.

SR 3.3.1.7

SR 3.3.1.7 is the performance of a COT every ~~[~~92~~]~~ days.

A COT is performed on each required channel to ensure the entire channel will perform the intended Function.

Setpoints must be within the Allowable Values specified in Table 3.3.1-1.

Remove strike out   DC ALL-005

~~The difference between the current "as found" values and the previous test "as left" values must be consistent with the drift allowance used in the setpoint methodology. The setpoint shall be left set consistent with the assumptions of the current unit specific setpoint methodology trip setpoint value.~~

DC ALL-002

~~The "as found" and "as left" values must also be recorded and reviewed for consistency with the assumptions of Reference 7.~~

delete strike out   DC 3.3-004

SR 3.3.1.7 is modified by ~~two notes. a~~ Note ~~1 that~~ provides a 4 hour delay in the requirement to perform this Surveillance for source range instrumentation when entering MODE 3 from MODE 2. This Note allows a normal shutdown to proceed without a delay for testing in MODE 2 and for a short time in MODE 3 until the RTBs are open and SR 3.3.1.7 is no longer required to be performed. If the unit is to be in MODE 3 with the RTBs closed for > 4 hours this Surveillance must be performed prior to 4 hours after entry into MODE 3. ~~Note 2 requires that the quarterly COT for the source range instrumentation shall include verification by observation of the associated permissive annunciator window that the P-6 and P-10 interlocks are in their required state for the existing unit conditions.~~

DC 3.3-004

The Frequency of ~~[~~92~~]~~ days is justified in Reference 7.

INSERT SR 3.3.1.7

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.9 (continued)

The SR is modified by a Note that excludes verification of setpoints from the TADOT. Since this SR applies to RCP undervoltage and underfrequency relays, setpoint verification requires elaborate bench calibration and is accomplished during the CHANNEL CALIBRATION.

SR 3.3.1.10

24 DC ALL-005

A CHANNEL CALIBRATION is performed every [18] months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy.

Remove Strikeout DC ALL-005

CHANNEL CALIBRATIONS must be performed consistent with the assumptions of the ~~unit specific~~ DCPP setpoint methodology. ~~The difference between the current "as found" values and the previous test "as left" values must be consistent with the drift allowance used in the setpoint methodology.~~

24 DC ALL-005

The Frequency of 18 months is based on the ~~assumption of an 18 month~~assumed calibration interval in the determination of the magnitude of equipment drift in the setpoint methodology.

SR 3.3.1.10 is modified by a Note stating that this test shall include verification that the time constants are adjusted to the prescribed values where applicable.

SR 3.3.1.11

24 DC ALL-005

SR 3.3.1.11 is the performance of a CHANNEL CALIBRATION, as described in SR 3.3.1.10, every [18] months. This SR is modified by ~~a~~ ~~two~~ three Notes. ~~stating~~ Note 1 states that neutron detectors are excluded from the CHANNEL CALIBRATION. Note 2 states that the test shall include verification that the time constants are adjusted to the prescribed values where applicable. The CHANNEL CALIBRATION for the power range neutron detectors consists of a normalization of the detectors based on a power calorimetric and flux map performed above 15% RTP. The CHANNEL CALIBRATION for the source range ~~and intermediate range~~ neutron detectors consists of obtaining the detector

INSERT SR 3.3.1.10

TR 3.3-004
TR 1.0-006

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.11 (continued)

plateau ~~or preamp discriminator~~ curves, evaluating those curves, and comparing the curves to the manufacturer's data. For the intermediate range and power range channels, a test shall be performed that shows allowed variances of detector voltage do not effect detector operation. This ~~Surveillance~~ SR is also modified by Note 2 3 stating that this surveillance is not required to be performed ~~Until reactor power exceeds P-6~~ ~~for the NIS power range detectors for entry into MODE 2 or 1, and is not required for the NIS intermediate range detectors for entry into MODE 2.~~ because the unit must be in at least MODE 2 to perform the test for the intermediate range detectors and MODE 1 for the power range detectors. ~~The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown these components usually pass the Surveillance when performed on the [18] month Frequency.~~ The source range plateau curves are obtained under the conditions that apply during a plant outage.

DC 33-005

Remove Strike Out

24 DC ALL-005

The 18 month Frequency is based on past operating experience, which has shown these components usually pass the Surveillance when performed on the 18 month Frequency. The conditions for obtaining the source range plateau curves and the power and intermediate range detector voltages are described above. The other remaining portions of the CHANNEL CALIBRATIONS may be performed either during a plant outage or during plant operation.

SR 3.3.1.12

24 DC ALL-005

SR 3.3.1.12 is the performance of a CHANNEL CALIBRATION of the seismic trip. ~~as described in SR 3.3.1.10.~~ every [18] months. ~~This SR is modified by a Note stating that this test shall include verification of the RCS resistance temperature detector (RTD) bypass loop flow rate.~~

CHANNEL CALIBRATION is a complete check of the instrument loop including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy.

~~This test will verify the rate lag compensation for flow from the core to the RTDs.~~

24 DC ALL-005

The Frequency is justified by the assumption of an 18 month calibration interval in the determination of the magnitude of equipment drift in the setpoint analysis.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.1.13

SR 3.3.1.13 is the performance of a COT of RTS interlocks every ~~[18]~~ 24 months. DC ALL-005

The Frequency is based on the known reliability of the interlocks and the multichannel redundancy available, and has been shown to be acceptable through operating experience.

SR 3.3.1.14

24 DC ALL-001

SR 3.3.1.14 is the performance of a TADOT of the Manual Reactor Trip, RCP Breaker Position, Seismic Trip and the SI Input from ESFAS. This TADOT is performed every ~~[18]~~ months. The test shall independently verify the OPERABILITY of the undervoltage and shunt trip mechanisms for the Manual Reactor Trip Function for the Reactor Trip Breakers and Reactor Trip Bypass Breakers. The Reactor Trip Bypass Breaker test shall include testing of the automatic undervoltage trip.

The Frequency is based on the known reliability of the Functions and the multichannel redundancy available, and has been shown to be acceptable through operating experience.

The SR is modified by a Note that excludes verification of setpoints from the TADOT. The Functions affected have no setpoints associated with them except for the Seismic Trip that is calibrated by SR 3.3.1.12 at the same 24 month frequency.

DC 3.3-005

SR 3.3.1.15

SR 3.3.1.15 is the performance of a TADOT of Turbine Trip Functions. This TADOT is as described in SR 3.3.1.4, except that this test is performed prior to reactor startup. A Note states that this Surveillance is not required if it has been performed within the previous 31 days. Verification of the Trip Setpoint does not have to be performed for this Surveillance. Performance of this test will ensure that the turbine trip Function is OPERABLE prior to taking the reactor critical. This test cannot be performed with the reactor at power and must therefore be performed prior to reactor startup.

Q 3.3-55

And the individual functions requiring RESPONSE TIME verification

SR 3.3.1.16

SR 3.3.1.16 verifies that the individual channel/train actuation response times are less than or equal to the maximum values assumed in the accident analysis. Response time testing acceptance criteria are included in ~~Technical Requirements Manual, Section 15 (Ref. 8)~~ the FSAR (Ref. 1). Individual component response times are not modeled in the analyses.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.16 (continued)

determined during unit operation because equipment operation is required to measure response times. Experience has shown that these components usually pass this surveillance when performed at the 18 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.3.1.16 is modified by a Note stating that neutron detectors are excluded from RTS RESPONSE TIME testing. This Note is necessary because of the difficulty in generating an appropriate detector input signal. Excluding the detectors is acceptable because the principles of detector operation ensure a virtually instantaneous response. Response time of the neutron flux signal portion of the channel shall be measured from detector output or input to the first electronic component in the channel.

SR 3.3.1.17 (17)

DC 3.3-E

P-7 logic interlock.

Q 3.3-54

SR 3.3.1.~~18~~ (19) is the performance of an ACTUATION LOGIC TEST for the ~~Seismic trip~~. The frequency of every ~~18~~ 24 months is based on instrument reliability and operating history data, and the requirement that the test be performed during a refueling outage so that the annunciator can be verified

DC-ALL-005

REFERENCES

1. FSAR, Chapter ~~[7]~~.
2. FSAR, Chapter ~~[6]~~.
3. FSAR, Chapter ~~[15]~~.
4. IEEE-279-1971.
5. 10 CFR 50.49.
6. ~~RTS/ESFAS Setpoint Methodology Study~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagel 21 Version," May 1993.
7. WCAP-10271-P-A, Supplement 2, Rev. 1, June 1990.
8. ~~Technical Requirements Manual, Section 15~~ ~~FSAR, Chapter 7, "Response Times."~~ WCAP 13632 - PA-1, Rev. 2 "Elimination of Pressure Sensor Response Time Testing Requirements."
9. FSAR, Chapter 9.2.7 & 9.2.2.
10. FSAR, Chapter 10.3 & 10.4.
11. FSAR, Chapter 8.3.
12. DCM S-38A, "Plant Protection System"
13. WCAP-13878, "Reliability of Potter & Brumfield MDR Relays," June 1994.

(continued)

BASES

BACKGROUND Signal Processing Equipment (continued)

actuation. Again, a single failure will neither cause nor prevent the protection function actuation.

These requirements are described in IEEE-279-1971 (Ref. 4). The actual number of channels required for each unit parameter is specified in Reference 2.

The channels are designed such that testing required to be performed at power may be accomplished without causing an ESF actuation.

INSERT B 3.3.2 BKG (1) DCALL-002

Trip Setpoints and Allowable Values

two-sided tolerance CA 3.3-014

The Trip Setpoints are the nominal values at which the bistables are set. Any bistable is considered to be properly adjusted when the "as left" value is within the band for ~~CHANNEL CALIBRATION~~ calibration accuracy.

INSERT 3.3-2(A) Q2-06(2.0)

The Trip Setpoints used in the bistables are based on the analytical limits stated in Reference 2. The selection of these Trip Setpoints is such that adequate protection is provided when all sensor and processing time delays are taken into account. To allow for calibration tolerances, instrumentation uncertainties, instrument drift, and severe environment errors for those ESFAS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 5), the Trip Setpoints and Allowable Values specified in Table 3.3.2-1 in the accompanying LCO are conservatively adjusted with respect to the analytical limits. A detailed description of the methodology used to calculate the Trip Setpoints, including their explicit uncertainties, is provided in ~~the "RTS/ESFAS Setpoint Methodology Study"~~ ~~Study"~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagle 21 Version," May 1993(Ref. 6). The actual nominal Trip Setpoint entered into the bistable is more conservative than that specified by the Allowable Value to account for changes in random measurement errors detectable by a COT. One example of such a change in measurement error is drift during the surveillance interval. If the measured setpoint does not exceed the Allowable Value, the bistable is considered OPERABLE.

Insert Strike Out DCALL-002

INSERT B 3.3.2 BKG (H) INSERT B 3.3.2 BKG (F) DCALL-005

Setpoints in accordance with the Allowable Value ensure that the consequences of Design Basis Accidents (DBAs) will be acceptable, providing the unit is operated from within the LCOs at the onset of the DBA and the equipment functions as designed.

(continued)

Insert for DC ALL-005

Enclosure 5B page B 3.3-67
Insert B 3.3.2 BKG (F)

The calibration tolerance, after conversion, should correspond to the rack comparator setting accuracy defined in the latest setpoint study.

Insert B 3.3.2 BKG (H)

Rack drift in excess of the Allowable Value exhibits the behavior that the rack has not met its allowance. Since there is a small statistical chance that this will happen, an infrequent excessive drift is expected. Rack or sensor drift in excess of the allowance that is more than occasional may be indicative of more serious problems and warrants further investigation.

BASES

BACKGROUND

Trip Setpoints and Allowable Values (continued)

~~Each~~ Certain channels can be tested on line to verify that the signal processing equipment and setpoint accuracy is within the specified allowance requirements of Reference 2. Once a designated channel is taken out of service for testing, a simulated signal is injected in place of the field instrument signal. The process equipment for the channel in test is then tested, verified, and calibrated. SRs for the channels are specified in the SR section.

The Trip Setpoints and Allowable Values listed in Table 3.3.2-1 are based on the methodology described in Reference 6, which incorporates all of the known uncertainties applicable for each channel. The magnitudes of these uncertainties are factored into the determination of each Trip Setpoint. All field sensors and signal processing equipment for these channels are assumed to ~~operate within the allowances~~ of these uncertainty magnitudes.

INSERT B 3.3.2 BKG (G)

DC ALL-005

Solid State Protection System

The SSPS equipment is used for the decision logic processing of outputs from the signal processing equipment bistables. To meet the redundancy requirements, two trains of SSPS, each performing the same functions, are provided. If one train is taken out of service for maintenance or test purposes, the second train will provide ESF actuation for the unit. If both trains are taken out of service or placed in test, a reactor trip will result. Each train is packaged in its own cabinet for physical and electrical separation to satisfy separation and independence requirements.

The SSPS performs the decision logic for most ESF equipment actuation; generates the electrical output signals that initiate the required actuation; and provides the status, permissive, and annunciator output signals to the main control room of the unit.

The bistable outputs from the signal processing equipment are sensed by the SSPS equipment and combined into logic matrices that represent combinations indicative of various

CA 3.3-014

INSERT CA 3.3-014(b)

(continued)

Insert for DC ALL-005

Enclosure 5B page B 3.3-68
Insert B 3.3.2 BKG (G)

The ESFAS Trip Setpoints may be administratively redefined in the conservative direction for several reasons including startup, testing, process error accountability, or even a conservative response for equipment malfunction or inoperability. ESFAS functions are not historically redefined at the beginning of each cycle for purposes of startup or testing as several reactor Trip functions are. However, calibration to within the defined calibration tolerance of an administratively redefined, conservative Trip Setpoint is acceptable. Redefinition at full power conditions for these functions is expected and acceptable.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.5 (continued)

surveillance interval extension analysis (Ref. 8) when applicable.

The Frequency of 92 days is justified in Reference 8.

SR 3.3.2.6

SR 3.3.2.6 is the performance of a SLAVE RELAY TEST. The SLAVE RELAY TEST is the energizing of the slave relays. Contact operation is verified in one of two ways. Actuation equipment that may be operated in the design mitigation MODE is either allowed to function, or is placed in a condition where the relay contact operation can be verified without operation of the equipment. Actuation equipment that may not be operated in the design mitigation MODE is prevented from operation by the SLAVE RELAY TEST circuit. For this latter case, contact operation is verified by a continuity check of the circuit containing the slave relay. This test is performed every ~~[92] days~~ 18 months. The Frequency is adequate, based on ~~industry~~ operating experience, considering ~~instrument~~ relay reliability and operating history data (Ref. 7).

24

DC ALL-005

SR 3.3.2.7 NOT USED

~~SR 3.3.2.7 is the performance of a TADOT every [92] days. This test is a check of the Loss of Offsite Power, Undervoltage RCP, and AFW Pump Suction Transfer on Suction Pressure - Low Functions. Each Function is tested up to, and including, the master transfer relay coils.~~

~~The test also includes trip devices that provide actuation signals directly to the SSPS. The SR is modified by a Note that excludes verification of setpoints for relays. Relay setpoints require elaborate bench calibration and are verified during CHANNEL CALIBRATION. The Frequency is adequate. It is based on industry operating experience, considering instrument reliability and operating history data.~~

(continued)

DC ALL-002

BASES

(except AFW; see SR 3.3.2.13)

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.2.8

24 DC ALL-001

SR 3.3.2.8 is the performance of a TADOT. This test is a check of the Manual Actuation Functions ~~and AFW pump start on trip of all MFW pumps~~. It is performed every ~~[18]~~ 24 months. Each Manual Actuation Function is tested up to, and including, the master relay coils. In some instances, the test includes actuation of the end device (i.e., pump starts, valve cycles, etc.). The Frequency is adequate, based on industry operating experience and is consistent with the typical refueling cycle. The SR is modified by a Note that excludes verification of setpoints during the TADOT for manual initiation Functions. The manual initiation Functions have no associated setpoints.

SR 3.3.2.9

SR 3.3.2.9 is the performance of a CHANNEL CALIBRATION.

24 DC ALL-005

A CHANNEL CALIBRATION is performed every ~~[18]~~ 24 months, ~~or approximately at every refueling~~. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to measured parameter within the necessary range and accuracy.

Remove Strike-Out DC ALL-005

CHANNEL CALIBRATIONS must be performed consistent with the assumptions of the unit specific setpoint methodology. ~~The difference between the current "as found" values and the previous test "as left" values must be consistent with the drift allowance used in the setpoint methodology.~~

24 DC ALL-005

The Frequency of ~~[18]~~ 24 months is based on the assumption of an ~~[18]~~ month calibration interval in the determination of the magnitude of equipment drift in the setpoint methodology.

This SR is modified by a Note stating that this test should include verification that the time constants are adjusted to the prescribed values where applicable.

SR 3.3.2.10

This SR ensures the individual channel ESF RESPONSE TIMES are less than or equal to the maximum values assumed in the

INSERT 3.3.2.9

TR 3.3-004

(continued)

BASES

and the individual functions requiring RESPONSE TIME verification

SURVEILLANCE REQUIREMENTS

SR 3.3.2.10 (continued)

accident analysis. Response Time testing acceptance criteria are included in the ~~Technical Requirements Manual, Section 15 (Ref. 9)~~ FSAR ~~and SR 3.3.2.10 is only applicable to those functions with a specified limit~~. Individual component response times are not modeled in the analyses. The analyses model the overall or total elapsed time, from the point at which the parameter exceeds the Trip Setpoint value at the sensor, to the point at which the equipment in both trains reaches the required functional state (e.g., pumps at rated discharge pressure, valves in full open or closed position). Q 3.3-55

For channels that include dynamic transfer functions (e.g., lag, lead/lag, rate/lag, etc.), the response time test may be performed with the transfer functions set to one with the resulting measured response time compared to the appropriate FSAR response time. Alternately, the response time test can be performed with the time constants set to their nominal value provided the required response time is analytically calculated assuming the time constants are set at their nominal values. The response time may be measured by a series of overlapping tests such that the entire response time is measured. DC ALL-002

~~INSERT TSTF-11~~

INSERT DC ALL002(2)

ESF RESPONSE TIME tests are conducted on an ~~[18]~~ 24 month STAGGERED TEST BASIS. DC ALL-005 Testing of the final actuation devices, which make up the bulk of the response time, is included in the testing of each channel. The final actuation device in one train is tested with each channel. Therefore, staggered testing results in response time verification of these devices every ~~[18]~~ 24 months. The ~~[18]~~ 24 month Frequency is consistent with the typical refueling cycle and is based on unit operating experience, which shows that random failures of instrumentation components causing serious response time degradation, but not channel failure, are infrequent occurrences. DC ALL-005

This SR is modified by a Note that clarifies that the turbine driven AFW pump is tested within 24 hours after reaching ~~[1000]~~ 650 psig in the SGs.

SR 3.3.2.11

SR 3.3.2.11 is the performance of a TADOT as described in SR 3.3.2.8, except that it is performed for the P-4 Reactor

Each verification shall include at least one train such that both trains are verified at least once per 48 months. DC ALL-002

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.3.1 (continued)

it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION. The high radiation instrumentation should be compared to similar unit instruments located throughout the unit.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including isolation, indication, and readability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit. If the channels are within the criteria, it is an indication that the channels are OPERABLE.

As specified in the SR, a CHANNEL CHECK is only required for those channels that are normally energized. The Containment Hydrogen Concentration monitors are maintained in a "standby" condition which does not energize all of the monitor components, thus the monitors are not considered "normally energized".

The Frequency of 31 days is based on operating experience that demonstrates that channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.3.2

May consist of an electronic calibration of the channel, not including the detector, for Range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.

A CHANNEL CALIBRATION is performed every ~~[18]~~ 24 months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to measured parameter with the necessary range and accuracy. ~~This SR is modified by a two Notes that Note 1 excludes neutron detectors from CHANNEL CALIBRATION. The calibration method for neutron detectors is specified in the Bases of LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation." Note 2 discusses an allowed methodology for calibrating the~~ CHANNEL CALIBRATION of the Containment Radiation Level (High Range) Function. The Frequency is based on operating experience and consistency with the typical industry refueling cycle.

DC AU-005

Q8-11

Q 3.3-20

REFERENCES

1. ~~[Unit specific document (e.g.,~~ FSAR, ~~NRC Regulatory Guide 1.97 SER letter).]~~ 7.5.

2. Regulatory Guide 1.97, ~~[date]~~ Revision 3.

3. NUREG-0737, Supplement 1, "TMI Action Items."

INSERT SR 3.3.3.2
TR 3.3-004

INSERT SR 3.3.3.3

Q 12-05 (3.6)

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.4.1 (continued)

within the criteria, it is an indication that the channels are OPERABLE. ~~If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit.~~ If the channels are normally off scale during times when Surveillance is required, the CHANNEL CHECK will verify only that they are off scale in the same direction. Offscale low current loop channels are verified to be reading at the bottom of the range and not failed downscale.

~~As specified in the Surveillance, a CHANNEL CHECK is only required for those channels which are normally energized.~~

The Frequency of 31 days is based upon operating experience which demonstrates that channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.4.2

SR 3.3.4.2 verifies each required Remote Shutdown System control circuit and transfer switch performs the intended function. This verification is performed from the ~~remote~~ hot shutdown panel and locally, as appropriate. Operation of the equipment from the remote shutdown panel is not necessary. The Surveillance can be satisfied by performance of a continuity check. This will ensure that if the control room becomes inaccessible, the unit can be placed and maintained in MODE 3 from the remote shutdown panel and the local control stations. The ~~[18]~~ month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. (However, this Surveillance is not required to be performed only during a unit outage.) Operating experience demonstrates that remote shutdown control channels usually pass the Surveillance test when performed at the ~~[18]~~ month Frequency.

24

DC ALL-005

SR 3.3.4.3

CHANNEL CALIBRATION is a complete check of the instrument loop and the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy.

The channel calibration is not applicable to the RTB indication.

INSERT SR 3.3.4.3

TR 3.3-004

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.4.3 (continued)

DC ALL-005

The Frequency of ~~[18]~~ 24 months is based upon operating experience and consistency with the typical industry refueling cycle.

~~SR 3.3.4.4~~

~~SR 3.3.4.4 is the performance of a TADOT every 18 months. This test should verify the OPERABILITY of the reactor trip breakers (RTBs) open and closed indication on the remote shutdown panel, by actuating the RTBs. The Frequency is based upon operating experience and consistency with the typical industry refueling outage.~~

~~NOTE: A surveillance of the reactor trip breaker OPERABILITY is not required as part of the SURVEILLANCE REQUIREMENT since a TRIP ACTUATING DEVICE OPERATIONAL TEST of the reactor trip breakers is performed as part of the SURVEILLANCE REQUIREMENT for TS 3.3.1.~~

Q 3.3-22

REFERENCES

1. 10 CFR 50, Appendix A, GDC 19 (associated with 1967 GDC 11 per FSAR Appendix 3.1A.)

DC ALL-002

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.6.7

A CHANNEL CALIBRATION is performed every ~~[18]~~ 24 months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy. DC ALL-005

The Frequency is based on operating experience and is consistent with the typical industry refueling cycle.

SR 3.3.6.8

This SR assures that the individual channel RESPONSE TIMES are less than or equal to the maximum values assumed in the accident analysis. Response Time testing acceptance criteria are included in the FSAR. Individual component response times are not modeled in the analyses. The analyses model the overall or elapsed time, from the point at which the parameter exceeds the Trip Setpoint value at the sensor, to the point at which the equipment in both trains reaches the required functional state (e.g., valves in full closed position). The response time may be measured by a series of overlapping tests such that the entire response time is measured.

RESPONSE TIME tests are conducted on an ~~18~~ 24 month STAGGERED TEST BASIS. Testing of the final actuation devices, which make up the bulk of the response time, is included in the testing of each channel. The final actuation device in one train is tested with each channel. Therefore, staggered testing results in response time verification of these devices every ~~18~~ months. The ~~18~~ month Frequency is consistent with the typical refueling cycle and is based on unit operating experience, which shows that random failures of instrumentation components causing serious response time degradation, but not channel failure, are infrequent occurrences. DC ALL-005

REFERENCES

1. 10 CFR 100.11.
2. NUREG-1366, December 1992.

CHANGE NUMBER	JUSTIFICATION
3.3-37	Several ITS Required Action Notes are modified per CTS to allow a channel to be placed in bypass for surveillance testing. [ ]
3.3-38	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-39	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-40	~~This change adds "and setpoint adjustment" to ITS 3.3.1 Condition E, similar to the Note for Condition D. Setpoint adjustment is required by the Required Actions of other specifications. The clarity and consistency of the specification is enhanced by adding this note to Condition E, in the same manner as Condition D.~~ e Not used. Q 3.3-40
3.3-41	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-42	This change deletes ITS 3.3.1 Condition N per Traveler TSTF-169. Condition M is appropriate for Function 10.a to prevent sequential entry into Condition N followed by M and exceeding the evaluated Completion Time in WCAP-10271-P-A, Supplement 2, Rev. 1. With this change, there is no need to list separate Functions 10.a and 10.b and combining the Functions eliminates Applicability questions similar to the Condition M vs. N concern above.
3.3-43	This change revises ITS 3.3.1 Condition R Notes 1 and 2 per Traveler TSTF-168. The 2-hour AOT should not be limited to only UVTA/STA maintenance. This is consistent with the current TS and is acceptable because the specific maintenance activity which requires that a reactor trip breaker be bypassed does not affect the impact of having the breaker bypassed. [ ]
3.3-44	This change revises ITS 3.3.1 Conditions S and T and ITS 3.3.2 Condition L ~~as well as the number of Required Channels in Tables 3.3.1-1 and 3.3.2-1,~~ to reflect current TS ACTION Statements [8 and 21]. The Conditions apply to one or more channels [or trains, as Condition T applies to permissive P-7,] because the safety function is served with the interlock in the appropriate state for existing plant conditions. ~~The existing plant design only requires 3 of the 4 channels (2-out-of-3 for P-11) for these interlocks to be operable.~~ e Q 3.3-44 Q 3.3-44
3.3-45	A new CONDITION ~~and SR are~~ w is added for the current licensing basis required seismic trip. DC ALL-005
3.3-46	A new CONDITION and SR are added for the current licensing basis required Steam Generator level low-low time delay trip. These changes affect both ITS 3.3.1 and 3.3.2.
3.3-47	Note 2 of SR 3.3.1.2 is revised to limit the power increase to less than 30% per the current licensing basis before the SR is complete.
3.3-48	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).
3.3-49	ITS SR 3.3.1.8 is revised to extend the conditional COT frequency for power and intermediate range channels from 4 hours after reducing power below P-10 to 12 hours, based on operating experience regarding the time needed to perform the COTs. It stands to reason that if 4 hours are allowed for 2 Source Range COTs, 12 hours should be allowed for 6 Intermediate Range and Power Range COTs. The SR continues to assure that the COTs are performed in a timely manner after the requisite plant conditions are entered. This change is consistent with Traveler ~~WOG-106~~ e TSTF-242 Q 3.3-49
3.3-50	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

Not Applicable to DCPP. See Conversion Comparision Table (Enclosure 6B)

DC 3.3-004

CHANGE NUMBER | **JUSTIFICATION**

3.3-109 ~~Not used.~~ INSERT 3.3-109 — Q 8-11

3.3-110 ~~Not used.~~ INSERT 3.3-110 — DCALL-005

3.3-111 ~~This change adds a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the current TS and is an enhancement which is easily performed and provides additional assurance that the interlocks are functioning correctly.~~ — DC 3.3-004

3.3-112 ~~Not used.~~ INSERT 3.3-112 — Q 12-05 (3.6)

3.3-113 ~~Not used.~~ INSERT 3.3-113 — Q 2-05 (2.0)

3.3-114 ~~Not used.~~ INSERT 3.3-114 — Q 3.3-66

3.3-115 Not used.

3.3-116 ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps. The function exists, but is not credited in any accident analysis and is not part of ESFAS Function 6 in the CTS.

3.3-117 This change to ITS 3.3.1 Condition R reflects current TS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.

3.3-118 This change is for consistency with ITS 3.7.10 Condition [G].

3.3-119 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-120 ~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.~~ Not used. — Q 3.3-120

3.3-121 Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).

3.3-122 ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring the RTBs to be opened with ACTIONS that ensure subcriticality is maintained (i.e., by initiating action to fully insert~~ing~~ all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135. — TR 3.3-006

3.3-123 This change deletes ACTION L.2 and renumbers L.3 since the requirement to close the unborated water source valves is not in the CTS and is not part of the current licensing basis. This new requirement is not applicable to DCPP which has a licensed dilution accident evaluation (refer to License Amendment 28/27). The current licensing bases in accordance with NUREG 0800, Section 15.4.6 provides adequate assurance that a dilution event will be recognized and arrested in a timely fashion. — DC 3.3-Ed

3.3-124 Consistent with the current TS Table 4.3-1, Note [15], the note for ITS SR 3.3.1.4 is modified, a note is added to Table 3.3.1-1, and Function 20 are modified to clarify that the SR is required for the reactor trip bypass breaker local manual shunt trip only. The Bases for SR 3.3.1.14 clearly state that SR 3.3.1.14 includes the automatic undervoltage trip of the reactor trip bypass breakers. The Note (k) added to Table 3.3.1-1, Function 20 clarifies the Applicability of the undervoltage and shunt trip mechanisms to include those functions of the reactor trip bypass breakers when in use.

Insert for DC ALL-005

Enclosure 6A page 9
Insert 3.3-110

ITS Table 3.3.1-1 Notes 1 and 2 and Table 3.3.2-1 notes (c) and (h) are revised to incorporate the revisions to CTS Table 2.2-1 and Table 3.3-4 via LA 122/120 and Additional Information Number DC ALL-005. Specifically, ITS Table 3.3.1-1 Notes 1 and 2 are revised to: 1) limit the OTΔT Allowable Value for hot and cold leg temperature, ΔT span for pressurizer pressure, and ΔI inputs, 2) make ΔT_0 loop specific, 3) make T' and T" loop specific indicated, and 4) limit the OPΔT Allowable Value for hot and cold leg temperature input. ITS Table 3.3.2-1 notes (c) and (h) are revised to reference the lead/lag compensator and the rate/lag compensator respectively.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-42	Delete ITS 3.3.1 Condition N and combine Functions 10.a and 10.b per Traveler TSTF-169.	Yes	Yes	Yes	Yes
3.3-43	Revise ITS 3.3.1 Condition R Notes 1 and 2 per Traveler TSTF-168. The 2-hour AOT should not be limited to only UVTA/STA maintenance.	Yes	Yes	Yes	Yes
3.3-44	Revise ITS 3.3.1 Conditions S and T and ITS 3.3.2 Condition L ~~as well as the number of Required Channels [or trains as Condition T applies to permissive P-7] in Tables 3.3.1-1 and 3.3.2-1,~~ to reflect CTS ACTION Statements [8 and 20].	Yes	Yes	Yes	Yes Q 3.3-44
3.3-45	A new CONDITION ~~and SR are~~ IS added for the current licensing basis required seismic trip.	Yes	No, not in CTS.	No, not in CTS.	No, not in CTS. DC ALL-005
3.3-46	A new CONDITION and SR are added for the current licensing basis required Steam Generator level low-low time delay trip. These changes affect both ITS 3.3.1 and 3.3.2.	Yes	No, not in CTS.	No, not in CTS.	No, not in CTS.
3.3-47	Note 2 of SR 3.3.1.2 is revised to limit the power increase to less than 30% per the current licensing basis before the SR is complete.	Yes	No, not in CTS.	No, not in CTS.	No, not in CTS.
3.3-48	ITS SR 3.3.1.7 has a NOTE that provides a four hour delay in the requirement to perform the Surveillance for source range instrumentation when entering MODE 3 from MODE 2. Wolf Creek has deleted this NOTE in accordance with current Surveillance Requirements and the revisions made in ITS Table 3.3-1. The requirements for this Surveillance will be maintained by SR 3.3.1.8 in Table 3.3.1-1 for each applicable Function. SR 3.3.1.8 has been structured to cover NI Functions specified in ITS Table 3.3.1-1 and SR 3.3.1.7 has been structured to cover all other Functions. This similar to how the NUREG has structured SR 3.3.1.10 and SR 3.3.1. 11.	No	No	Yes	No

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-103	Function 11 of ITS Table 3.3.1-1 is revised per the DCPP CTS to reflect the current plant design of only a two loop trip. With this revision Condition O is no longer used, since it was only applicable to the single loop trip.	Yes	No	No	No
3.3-104	CONDITION A of ITS 3.3.5 is revised to incorporate CTS ACTIONS 15 and 16. CONDITIONS B and C are not used.	Yes	No, see CN 3.3-131.	No, see CN 3.3-99.	No, see CN 3.3-99.
3.3-105	Function 4.d.(2) of ITS Table 3.3.2-1 and notes (c) and (h) are revised per the DCPP CTS.	Yes	No, see CN 3.3-12.	No, see CN 3.3-12.	No, see CN 3.3-12.
3.3-106	Delete ISTS Required Actions B.2.2 and U.2.2. These Required Actions are not needed due to exiting the APPLICABILITY via Required Actions B.2.1 and U.2.1.	Yes	Yes	Yes	Yes
3.3-107	Based upon operating experience to change Thermal Power in a controlled fassion without challenging the plant and consistent with the CTS which does not have a Completion Time for restoring one channel to OPERABLE ststus; but does pervent going above P-10 until it is restored, the Completion Time for ITS 3.3.1 Required Actions F.1 and F.2 should be increased to 24 hours.	Yes	Yes	Yes	Yes
3.3-108	~~Not used.~~ INSERT 3.3-108(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 20-H(20)
3.3-109	~~Not used~~ INSERT 3.3-109(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 8-N
3.3-110	~~Not used~~ INSERT 3.3-110(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q DCALL005
3.3-111	Add a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the CTS.	~~Yes~~ No, adopted ISTS.	Yes	No-see CN 3.3-48.	Yes DC 3.3-004
3.3-112	~~Not used~~ INSERT 3.3-112(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 12-05 (3.6)
3.3-113	~~Not used~~ INSERT 3.3-113(a)	~~N/A~~ YES	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 2-05 (2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	N/A No Q 3.3-66

Insert for DC ALL-005

Enclosure 6B page 17
Insert 3.3-110 (a)

For DCPP, ITS Table 3.3.1-1 Notes 1 and 2 and Table 3.3.2-1 notes (c) and (h) are revised to incorporate the revisions to CTS Table 2.2-1 and Table 3.3-4 via LA 122/120.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC 3.3-001 **APPLICABILITY:** DC

REQUEST:

Revise ITS and CTS to incorporate changes due to issuance of LA 127/125 dated June 5, 1998, which revises the ACTIONS for the Loss of Power function. This change deletes the applicability of DOC 02-48-LS28.

ATTACHED PAGES:

Encl. 2	3/4 3-20 & 21
Encl. 3A	18
Encl. 3B	23
Encl. 4	NSHC Contents and page 47 & 48

TABLE [illegible]3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

DC ALL-002

FUNCTIONAL UNIT	~~TOTAL NO. OF~~ REQUIRED CHANNELS	~~CHANNELS TO TRIP~~	~~MINIMUM CHANNELS OPERABLE~~	APPLICABLE MODES	ACTION	
						01-04-LG 01-43-A
7. Loss of Power (4.16 kV Emergency Bus Undervoltage)						02-11-A
a. First Level				1, 2, 3, 4**		02-36 M ℓ
1) Diesel Start	1/Bus	~~1/Bus~~	~~1/Bus~~		16	LS49
2) Initiation of Load Shed	2/Bus	~~2/Bus~~	~~2/Bus~~		~~16~~15	Q 2-36 ~~02-48-LS28~~
b. Second Level				1, 2, 3, 4**		DC 3.3-001 02-36 M ℓ
1) Undervoltage Relays	2/Bus	~~2/Bus~~	~~2/Bus~~		~~16~~15	~~02-48-LS28~~
2) Timers to Start Diesel	1/Bus	~~1/Bus~~	~~1/Bus~~		16	
3) Timers to Shed Load	1/Bus	~~1/Bus~~	~~1/Bus~~		16	
8. Engineered Safety Features Actuation System Interlocks						
a. Pressurizer Pressure, P-11	3 2 ℓ Remove Strike Out	~~2~~	~~2~~	1, 2, 3	21	01-37 A ℓ M Q 3.3-44
b. DELETED						
c. Reactor Trip, P-4	2	~~2~~	~~2~~	1, 2, 3	23	
9. Residual Heat Removal pump trip ~~low~~ on RWST level -low	3	2	2	1, 2, 3, 4	~~20.1~~ 36 ℓ	02-29-M DC ALL-002

TABLE NOTATIONS

02-22-A

\# Trip function may be blocked in this MODE below the P11 (Pressurizer Pressure Interlock) Setpoint. Q3.3-63

\## Trip function ~~automatically~~ blocked above P-11 (Pressurizer Pressure Interlock) Setpoint and is ~~automatically~~ blocked below P-11 when Safety Injection on Steam Line Pressure-Low is not blocked. 02-50-LG Q3.3-63

\### For Mode 3, the Trip Time Delay associated with the Steam Generator Water Level-Low-Low channel must be less than or equal to 464.1 seconds. 02-36-M LS49 Q2-36

(new) ** When associated DG is required to be OPERABLE by LCO 3.8.1.2, "AC Sources-Shutdown."

(new) (a) Not applicable when all MSIVs are closed and deactivated. 02-07-LS11

(new) (b) Not applicable when all MFIVs, main feedwater regulating valves and main feedwater regulating bypass valves are closed and deactivated or isolated by a closed manual isolation valve. 02-07-LS11

ACTION STATEMENTS

ACTION 14 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~, provided the other channel is OPERABLE. 01-04-LG 01-66-LS95 Q3.3j

ACTION 15 - With the number of ~~OPERABLE~~ Channels less than the Required Channels ~~OPERABLE requirement~~ Minimum, declare the affected emergency Diesel Generator(s) inoperable and comply with the ACTION statements of Specification 3.8.1.1, however one channel may be bypassed for up to 2 hours for surveillance testing ~~per Specification 4.3.2.1~~. DC 3.3-001 ~~02-48-LS28~~ 01-43-A Q3.3j 02-11-A DC 3.3 E0

ACTION 16 - With the number of OPERABLE Channels one less than the ~~Total Number of~~ Required Channels, declare the affected Emergency Diesel Generator(s) inoperable and comply with the ACTION statements of Specification 3.8.1.1; however, one channel may be bypassed for up to 2 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-43-A 02-11-A 01-66-LS95 Q3.3j

ACTION 17 - With ~~the number of OPERABLE channels one less than the Total Number of Channels~~ one containment pressure channel inoperable, operation may proceed provided the inoperable channel is placed in the bypassed condition ~~and the Minimum Channels OPERABLE requirement is met~~ within 6 hours, or be in MODE 3 in 12 hours and in MODE 5 in 42 hours. 01-43-A 02-15-M 01-04-LG

Note, one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 01-66-LS95 Q3.3j

ACTION 17.1 - (new) With one containment pressure channel inoperable, operation may proceed provided the inoperable channel is placed in the bypassed condition within 6 hours, or be in MODE 3 in 12 hours and in MODE 4 in 18 hours. Note, one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.2.1~~. 02-15-M Q3.3j

ACTION 18 - With less than the ~~Minimum~~ Required Channels OPERABLE ~~requirement~~, comply with ACTION 37, and operation may continue beyond the 4 hour period provided the containment purge supply and exhaust valves ~~(RCV 11, 12, FCV 660, 661, 662, 663, 664)~~ are maintained closed. 01-04-LG 02-05-M 02-39-LG 03-14-LS29

CHANGE NUMBER	NSHC	DESCRIPTION
02-41	~~LS30~~ e	Not ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ used. CA 3.3-009
02-42	~~LS38~~ e	Not ~~applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ used. CA 3.3-002
02-43	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-44	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-45	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-46	LS42	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-47	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-48	~~LS28~~ e	Not used. ~~A new Action 15 is added and applied to Functional Unit 7. a. 2) and 7. b. 1) that allows the affected Emergency Diesel Generator to be declared inoperable and requires entry into Specification 3.8.1.1 when more than one relay per bus is inoperable. Current ACTION 16 does not address the above situation and requires entry into LCO 3.0.3. This change is consistent with NUREG-1431.~~ g DC 3.3-001 Q 3.3-63 Q 3.3-79 Q 2-08
INSERT 2-50-LG INSERT 2-51 LG INSERT 2-56-LS48		
03-01	A	The requirements of this specification [CTS 3.3.3.1] are moved to [four] separate specifications in the improved TS. The RCS Leakage Detection requirements are moved to improved TS 3.4.15. [The Fuel Building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [The Containment Ventilation Isolation requirements are moved to improved TS 3.3.6.]
03-02	M	~~The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.6-1, 3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.~~ e Q 3-02 INSERT 3-02-M
03-03	LG	The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10CFR70.24; however, there is no requirement for [them] to be in the Technical Specifications [as criticality monitors. They are retained, however, as initiators of the Iodine Removal mode of the FHBVS for a fuel handling accident until RM-~~44A~~ 45A and ~~44B~~ 45B are installed in accordance with License Amendment 70/69]. Since Part 70 is invoked in the operating licens~~e~~, these monitors will be retained in the plant design. INSERT 3-03 DC ALL-002 Q 3-03

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

INSERT 2-50-LGa

INSERT 2-51-LGa

INSERT 2-56-LS480

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
02-48 ~~LS28~~	~~A new Action 15 is added and applied to function 7.a.2) and 7.b.1) that allows the affected Emergency Diesel Generator to be declared inoperable and requires entry into Specification 3.8.1.1 when more than one relay per bus is inoperable. Current ACTION 16 does not address the above situation and requires entry into LCO 3.0.3. This change is consistent with NUREG-1431.~~ Not used	~~Yes~~ NA	~~No, see CN 2-23-LS23.~~ NA	~~No, see CN 2-18-LS31.~~ NA	~~No, see CN 2-18-LS31~~ NA DC 3.3-001 Q 3.3-63 Q 3.3-79 Q 2-08
03-01 A	The requirements of this specification [CTS 3.3.3.1] are moved to [four] separate specifications in the improved TS. The RCS Leakage Detection requirements are moved to improved TS 3.4.15. [The Fuel Building requirements are moved to improved TS 3.3.8.] The Control Room requirements are moved to improved TS 3.3.7. [The Containment Ventilation Isolation is moved to improved TS 3.3.6.] INSERT 3-02-A	Yes	Yes	Yes	Yes Q 3-02
03-02 M	The requirements stipulated in ACTION [a] are moved to ITS Tables [3.3.6-1, 3.3.7-1 and 3.3.8-1], with explicit direction contained in the ITS ACTIONS Bases. The 4 hour AOT for setpoint adjustment is eliminated.	Yes	Yes	Yes	Yes
03-03 LG	The requirements associated with the criticality monitors are moved to a licensee controlled document. These monitors are required by 10CFR70.24; however, there is no requirement for [them] to be in the Technical Specifications [as criticality monitors. They are retained, however, as initiators of the Iodine Removal mode of the FHBVS for a fuel handling accident until RM-45A/B are installed].	Yes, moved to FSAR.	No, not in CTS.	Yes, moved to USAR Section 16.3.	Yes, moved to FSAR Section 16.3.
03-04 M	This change adds the Applicability for movement of irradiated fuel assemblies. The CTS Applicability of "All" MODES does not cover the movement of irradiated fuel assemblies when the core is offloaded.	Yes	Yes	No, see CN 3-12-A.	Yes

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

DC 3.3-001

NSHC LS28
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

This change incorporates a new required ACTION for CTS 3.3.2 Table 3.3-3, Functional Unit 7.a.2) and 7.b.1). This new ACTION 15 would require that for either one or two relays per bus inoperable, that the associated DG be declared inoperable and that the ACTION Statements for TS 3.8.1.1 be met. The CTS do not have an ACTION for two inoperable relays, thus LCO 3.0.3 must be entered. License Amendment 97-02 which included ACTION 15 was submitted on February 27, 1997.

Two levels of undervoltage detection and automatic transfer are provided for the 4kV vital buses to start the DGs and to transfer vital loads to the DGs. The first level of undervoltage protection (FLUR) detects the loss of bus voltage and has sufficient time delay to allow the transfer of the vital buses to the startup transformer.

The second level of undervoltage protection (SLUR) is intended to protect against a degraded voltage condition, and has two sequential time delays for DG starting and loading.

The load shed FLUR and SLUR contacts are each connected in series for two-out-of-two logic. This assures that a single failure of a load shed FLUR or SLUR does not cause an unnecessary transfer of the vital buses to the DGs. Since both relays are required to be OPERABLE to cause an undervoltage actuation, the current ACTION 16 recognizes that the undervolatge function will not operate with one relay inoperable. Inoperability of the second relay does not change conditions recognized by the current ACTION Statement, thus the ACTION Statement should be the same for one or two relays inoperable.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Overall protection system performance will remain wtihin the bounds of previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the required actions in that LCO 3.0.3 is not required to be entered. However, the condition of two relays inoperable does not change the fact that with one relay inoperable, the undrevoltage actuation will not actuate. The proposed change will not affect the probability of any accident initiators nor will it affect the ability of the safety-related equipment to perform its intended

DC 3.3-001

NSHC LS28
(continued)

function. Therefore, neither the probability nor the consequences of an accident previously evaluated will be affected by this change.

2. Does the change create the possibility of a new or different kind of accident previously evaluated?

There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The change in ACTION will not alter the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

The proposed change affects neither the relevant event acceptance criteria for any analyzed event nor any assumed failure point. Therefore, there will be no effect on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS28" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC 3.3-002 **APPLICABILITY:** DC

REQUEST:

The CTS in Table 2.2-1 specifies a Trip Setpoint and Allowable Value for the Turbine Trip-Low Autostop Oil Pressure and for Turbine Trip-Turbine Stop Valve Closure. CTS Table 4.3-1 specifies that the function be tested via a TADOT prior to startup if not performed in the previous 31 days and via note (9) that setpoint verification is not applicable. Even though not specifically required by the CTS, a calibration is performed. ITS Table 3.3.1-1, Function 16 a. & b. requires that a CHANNEL CALIBRATION be performed every 18 months and requires a TADOT prior to startup. DCPP is adopting the ITS CHANNEL CALIBRATION requirement of Table 3.3.1-1 via SR 3.3.1.10, which was revised to a 24 month frequency via DC ALL-005, and has evaluated the drift of the pressure switches associated with the Low Autostop Oil Pressure to extend the frequency to 24 months. The evaluation determined that the CTS and ITS Allowable Value should be revised from ≥ 45 psig to ≥ 46.5 psig which is in the more restrictive direction. DOC 1-36 M, which adopted the ITS CHANNEL CALIBRATION surveillance, has been revised to an "LS" DOC to justify the frequency extension. In addition, new note (22), previously applied to CTS functional unit 17, is deleted since there are no time constants associated with this function.

ATTACHED PAGES:

Encl. 2	3/4 3-11
Encl. 2 (2.0)	2-5
Encl. 3A	11
Encl. 3B	9
Encl. 4	NSHC Contents and Insert NSHC LS53
Encl. 5A	3.3-24

TABL[illegible] (Continued)
REACTOR TRIP SYSTEM INST[illegible]TATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	~~MODES FOR WHICH SURVEILLANCE IS REQUIRED~~	01-44-A DC ALL-002
13. Steam Generator Water Level-Low-Low							
a. Steam Generator Water Level-Low-Low	S	R(22) 24	Q	N.A.	N.A.	~~1, 2~~	01-23-A DC ALL-005
b. RCS Loop ΔT Equivalent to Power	N.A.	R (22)	Q	N.A.	N.A.	~~1, 2~~	01-23-A
14. DELETED							
15. Undervoltage-Reactor Coolant Pumps	N.A.	R (22) 24	N.A.	Q(9)	N.A.	~~1~~	01-23-A 01-16-LS40 DC ALL-005
16. Underfrequency-Reactor Coolant Pumps	N.A.	R (22)	N.A.	Q(9)	N.A.	~~1~~	01-23-A 01-16-LS40
17. Turbine Trip		24					LS53
a. Low Fluid Oil Pressure	N.A.	R(~~22~~)	N.A.	S/U(1a, 9)	N.A.	~~1~~	01-36-A ~~01-23-A~~ DC 3.3-002
b. Turbine Stop Valve Closure	N.A.	R(~~22~~)	N.A.	S/U(1a, 9)	N.A.	~~1~~	01-24-LS9
18. Safety Injection Input from ESF	N.A.	N.A.	N.A.	R 24 (9)	N.A	~~1, 2~~	Q 1-23 ~~1-64-A~~ DC ALL-001
19. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	N.A.	R 24	N.A.	~~1~~	DC ALL-001
20. Reactor Trip System Interlocks							DC ALL-005
a. Intermediate Range Neutron Flux, P-6	N.A.	R(4) 24	R	N.A.	N.A.	2##	DC ALL-005
~~b. Low Power Reactor Trips Block, P-7~~	~~N.A.~~	~~R(4)~~ 24 N.A.	(R) 24 N.A.	~~N.A.~~	~~N.A.~~ R24	~~1~~	Q 1-51 01-51-LG
c. Power Range Neutron Flux, P-8	N.A.	R(4) 24	R	N.A.	N.A.	~~1~~	01-59-LS46 DC ALL-005

Delete Strike Out to Restore.

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
13. Steam Generator Water Level-Low-Low	≥ 7.2% of narrow range instrument span-each steam generator	7.0 ≥ ~~6.8~~% of narrow range instrument span-each steam generator DC ALL-005
Coincident with:		
a. RCS Loop ΔT Equivalent to Power ≤50% RTP	RCS Loop ΔT variable input ≤50% RTP	RCS Loop ΔT variable input ≤~~51.5~~% RTP 50.7 DC ALL-005
With a time delay (TD)	≤TD (Note 5)	≤(1.01)TD (Note 5)
Or		
b. RCS Loop ΔT Equivalent to Power >50% RTP	RCS Loop ΔT variable input >50% RTP	RCS Loop ΔT variable input >~~51.5~~% RTP
With no time delay	TD = 0	TD = 0
14. DELETED		
15. Undervoltage-Reactor Coolant Pumps	≥ 8050 volts-each bus	7877 ≥ ~~7730~~ volts-each bus
16. Underfrequency-Reactor Coolant Pumps	≥ 54.0 Hz - each bus	≥ 53.9 Hz - each bus
17. Turbine Trip		DC 3.3-002
a. Low Autostop Oil Pressure	≥ 50 psig	46.5 ≥ ~~45~~ psig
b. Turbine Stop Valve Closure	≥ 1% open	≥ 1% open
18. Safety Injection Input from ESF	N.A.	N.A.
19. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.
20. Reactor Trip Breakers	N.A.	N.A.
21. Automatic Trip and Interlock Logic	N.A.	N.A.

CHANGE NUMBER	NSHC	DESCRIPTION
01-35	LG	This change moves response time limit tables to the updated FSAR per Generic Letter 93-08 and NUREG-1431.
01-36	~~M~~ LS53	~~This change adds a requirement to perform a Channel Calibration on Functional Unit 17 every 18 months. This change is consistent with NUREG-1431.~~ INSERT 1-36 DC 3.3-002
01-37	A M	In the CTS, the "Minimum Channels OPERABLE" is one less than the "Total Number of Channels" for Functional [22.c] (P-8), [22.d](P-9), and [22.e] (P-10) in Table 3.3-1 and Functional Unit [8.a] (P-11) in Table [3.3-3]. For these Reactor Trip System and ESFAS interlocks, current ACTION Statements [8 and 21] for an inoperable channel are based on the "Minimum Channels OPERABLE" columns in Tables 3.3-1 and [3.3-3]. In the improved TS, only the "Total Number of Channels" information is retained in the LCO and that column is relabeled as the "Required Channels", as discussed in CN 1-04-LG and CN 1-43-A. Required ACTIONs in improved TS 3.3.1 Conditions S and T and improved TS 3.3.2 Condition L are tied to the Required Channels. ~~Therefore, the required permissive channels for these Functional Units are revised in the CTS.~~ Refer also to CN 01-51-LG for P-7. Q 3.3-44 INSERT 1-37-M Q 3.3-44
01-38	R	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-39	A	This change adds Note [5] to Functional Units [2.b,3, and 4] in CTS Table 4.3-1. Note [5] is currently listed against Functional Unit [2.a]. Testing methodology and the timing of that testing for the power range channels apply to all power range functions, not just power range-high. As such, this is an administrative change only. ITS SR 3.3.1.11 applies to all power range functions in a similar manner.
01-40	LS41	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-41	A	This change moves the first sentence of note (1) of Table 3.3-2 to ITS SR 3.3.1.16, and moves the rest of Note (1) to the Bases.
01-42	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

[illegible]

[illegible]

Insert for DC 3.3-002

Enclosure 3A page 11
Insert 1-36

This change to CTS Table 4.3-1 Functional Unit 17 a. and b. adopts the ITS CHANNEL CALIBRATION (SR 3.3.1.10) requirement of Table 3.3.1-1 Function 16 a. and b. The CHANNEL CALIBRATION is not specifically required by the CTS, but is inferred, and has been performed, prior to startup following refueling outages. Thus the requirement is more restrictive, but is not considered as such due to current plant calibration practice. The ITS specified frequency is extended from 18 months to 24 months to account for the adoption of extended fuel cycles. The lengthening of the surveillance frequency is a less restrictive change.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-34 A	Callaway's current ACTION Statement 5.b requirements for two inoperable source range channels are divided between the reactor trip, indication, and BDMS functions served by the source range channels. New ACTION Statement 4.1, added to CTS Table 3.3-1, retains the requirement to open the reactor trip breakers to serve the reactor trip function. The ACTION Statement 5.b requirements that are not related to reactor trip are moved to ITS 3.3.9. See also CN 1-30-M.	No	No	No	Yes
01-35 LG	This change moves response time limit tables to the updated FSAR per Generic Letter 93-08 and NUREG-1431 Rev. 1.	Yes	No, already moved to TRM.	No, already moved to USAR Section 16.3.	No, already moved to FSAR Section 16.3.
01-36 ~~M~~ LS53	This DCPP-specific change adds a requirement to perform a Channel Calibration on Functional Unit 17 every ~~18~~ 24 months.	Yes	No	No	No DC 3.3-002

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

[illegible]

[illegible]

Insert for DC 3.3-002

Enclosure 4
Insert NSHC LS53

NSHC LS53
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

The CTS in Table 2.2-1 specifies a Trip Setpoint and Allowable Value for the Turbine Trip-Low Autostop Oil Pressure and for Turbine Trip-Turbine Stop Valve Closure, Functional Unit 17.a. and b. CTS Table 4.3-1 specifies that the function be tested via a TADOT prior to startup if not performed in the previous 31 days and via note (9) stipulates that setpoint verification is not applicable. Even though not specifically required by the CTS, a calibration is performed as part of the performance of the CTS required TADOT. ITS Table 3.3.1-1, Function 16 a. & b. requires that a CHANNEL CALIBRATION be performed every 18 months and requires a TADOT prior to startup. DCPP is adopting the ITS CHANNEL CALIBRATION requirement of Table 3.3.1-1 via SR 3.3.1.10 except that the surveillance frequency is being extended to 24 months. The drift of the pressure switches associated with the Low Autostop Oil Pressure has been evaluated to extend the frequency from the currently implied 18 months (tested via the TADOT prior to startup) to 24 months. The evaluation determined that the CTS and ITS Allowable Value for the pressure switches should be revised from ≤ 45 psig to ≤ 46.5 psig. This Allowable value change is in the more restrictive direction. The position switches for the Turbine Stop Valve Closure are not subject to drift and were not evaluated. The evaluation methodology used was the same as used for LAR 96-10, which was approved by the NRC as LA 122/120 on February 17, 1998. Along with the instrument drift, all other channel uncertainties and process effects for normal environmental conditions were included in the evaluation.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> *1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> *2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> *3. Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

[illegible]

[illegible]

[illegible]

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The increased channel calibration interval does not change the manner in which the plant is operated or the way in which the surveillance tests are performed. Evaluation of the specific components indicates that they will continue to perform satisfactorily with a longer surveillance interval. Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The proposed Allowable Value is more restrictive, therefore, has no effect on the types of accidents assumed to occur. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. Since there are no safety analysis limits associated with this trip function, the allowed value change does not reduce the margin of safety. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS53" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

Table 3.3.1-1 (page ~~5~~6 of ~~8~~10)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT ~~(a)~~ ED
16. Turbine Trip					3.3-02	B-PS
a. Low ~~Fluid~~ Auto-Stop Oil Pressure	1(j)	3	~~P~~ O	SR 3.3.1.10 SR 3.3.1.15	≥ ~~[750]~~ 46 psig 46.5 DC3.3-003	Q 3.3-02 ≥ ~~[800]~~ 50 psig ≥ 1% open B
b. Turbine Stop Valve Closure	1(j)	4	P	SR 3.3.1.10 SR 3.3.1.15	≥ 1% open	
17. Safety Injection (SI) Input from Engineered Safety Feature Actuation System (ESFAS)	1.2	2 trains	Q	SR 3.3.1.14	NA	NA

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC 3.3-003 **APPLICABILITY:** DC

REQUEST:

During the review of Comment Number Q 3.3-37 it was noted that the portion of CTS Table 4.3-1 ACTION 6 that allows the bypass of one additional channel was not included in the mark-up of ITS LCO 3.3.1 ACTIONS E.1 and M.1 and was not incorporated into some CTS revised ACTIONS.

DOC 1-45 M is revised to refer to new ACTION Statement 6.1 versus 2.1. New ACTION 6.1 is created to retain the CTS ACTION 6 note, which allows the bypass of one additional channel. This portion of the note was inadvertently overlooked when developing the original submittal and not transferred to the ITS. ACTION 2.1, which was originally referred to, is similar to new ACTION 6.1 except that it only allows bypass of the tripped channel.

DOC 1-19-LS8 and NSHC LS8 are revised to include ACTION 28 which is revised instead of being deleted. ACTION 28 is revised as justified by change number 1-19 LS8. Change number 1-19 LS8 includes the option to decrease power below P-7 within 12 hours in lieu of tripping the inoperable channel. ACTION 28 was retained and revised since the bypass note was not identical to ACTION 6. The revision of CTS ACTION 28 means that DOC 1-50 A is deleted as applicable to CTS ACTION 28.

See also response to Comment Number Q 1-49 and Q 3.3-37.

ATTACHED PAGES:

Encl. 2	3/4 3-2, 3, 6 and 7
Encl. 3A	6, 12, and 13
Encl. 3B	6, 11, and 12
Encl. 4	29

DC ALL-002

TABLE 3.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	~~TOTAL NO.~~ OF CHANNELS	REQUIRED ~~TO TRIP~~	~~MINIMUM CHANNELS OPERABLE~~	~~CHANNELS~~ MODES	APPLICABLE ACTION	
						01-04-LG 01-43-A
1. Manual Reactor Trip	2 2	~~1~~ ~~1~~	~~2~~ ~~2~~	1, 2 3*, 4*, 5*	1 11	
2. Power Range, Neutron Flux a. High Setpoint b. Low Setpoint	 4 4	 ~~2~~ ~~2~~	 ~~3~~ ~~3~~	 1, 2 1###, 2	 2 ~~2~~ 2.1	01-06-LS2
3. Power Range, Neutron Flux High Positive Rate	4	~~2~~	~~3~~	1, 2	~~2~~ 2.1	01-06-LS2
4. Power Range, Neutron Flux High Negative Rate	4	~~2~~	~~3~~	1, 2	~~2~~ 2.1	01-06-LS2
5. Intermediate Range, Neutron Flux	2	~~1~~	~~2~~	1###, 2(d)	3, 3.1	01-07-LS3
6. Source Range, Neutron Flux a. Startup b. Shutdown c. Shutdown	 2 2 2	 ~~1~~ ~~1~~ ~~0~~	 ~~2~~ ~~2~~ ~~1~~	 2## 3*, 4*, 5* 3(i), 4(i), and 5(i)	 4, 4.1 11, 4.1 5	 01-08-M 01-08-M 01-47-A
7. Overtemperature ΔT	4	~~2~~	~~3~~	1, 2	~~6~~ ~~2.1~~ 6.1	01-45-M
8. Overpower ΔT	4	~~2~~	~~3~~	1, 2	~~6~~ ~~2.1~~ 6.1	01-45-M
9. Pressurizer Pressure-Low	4	~~2~~	~~3~~	1(g)	6	01-19-LS8
10. Pressurizer Pressure-High	4	~~2~~	~~3~~	1, 2	~~6~~ ~~2.1~~ 6.1	01-45-M
11. Pressurizer Water Level-High	3	~~2~~	~~2~~	1(g)	6	01-19-LS8

DC 33-003

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT		~~TOTAL NO.~~ OF CHANNELS	REQUIRED ~~TO TRIP~~	~~MINIMUM CHANNELS OPERABLE~~	~~CHANNELS~~ MODES	APPLICABLE ACTION	
							01-04-LG
							01-43-A
12.	Reactor Coolant Flow-Low	3/loop			1[(g)]	6	01-19-LS8
	~~a. Single Loop (Above P-8)~~	~~3/loop~~	~~2/loop in one loop~~	~~2/loop in each loop~~	~~1~~	6	01-57-LG
	~~b. Two Loops (Above P-7 and below P-8)~~	~~3/loop~~	~~2/loop in two loops~~	~~2/loop in each loop~~	~~1~~	6	
13.	Steam Generator Water Level Low-Low						
	a. Steam Generator Water Level-Low-Low	3/S.G.	~~2/S.G. in one S.G.~~	~~2/S.G. in each S.G.~~	1.2	6 ~~2~~ 6.1 DC 3.3-003	01-45-M
	b. RCS Loop ΔT	4 (1/loop)	~~N.A.~~	~~N.A.~~	1.2	27	
1 DELETED							DC ALL-002
15.	Undervoltage-Reactor Coolant Pumps	2/bus	~~1/bus both busses~~	~~1/bus~~	1[(g)]	28 6 DC 3.3-003 delete strike out	01-19-LS8 ~~01-60-A~~
16.	Underfrequency-Reactor Coolant Pumps	3/bus	~~2 on same bus~~	~~2/bus~~	1[(g)]	28 6	01-19-LS8 ~~01-50-A~~
17.	Turbine Trip						
	a. Low Autostop Oil Pressure	3	2	2	1[(j)]	7	01-48-LS4
	b. Turbine Stop Valve Closure	4	4	4	1[(j)]	~~7~~ 7.1	01-48-LS4

Q 3.3-02

~~Unit 1 - Amendment No. 103~~
~~Unit 2 - Amendment No. 102~~
~~July 2, 1995~~

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 3 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement~~ and with the THERMAL POWER level: 01-04-LG

~~a. Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint, and~~ 01-07-LS3

b. Above the P-6 Setpoint, but below 10% of RATED THERMAL POWER, within 24 hours restore the inoperable channel to OPERABLE status ~~prior to increasing~~ or reduce Thermal Power to less than P-6, or increase THERMAL POWER above 10% of RATED THERMAL POWER. 01-07-LS3

ACTION 3.1 - (new) With two Intermediate Range Neutron Flux Channels inoperable and with the THERMAL POWER level, above the P-6 Setpoint, but below 10% of RATED THERMAL POWER, immediately suspend operations involving positive reactivity additions and, within 2 hours, reduce THERMAL POWER to less than the P-6 Setpoint. 01-07-LS3

ACTION 4 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement~~ immediately suspend all operations involving positive reactivity changes. 01-04-LG 01-08-M

ACTION 4.1 - (new) With no source range neutron flux channels OPERABLE immediately open the reactor trip breakers. 01-08-M

ACTION 5 - With the number of channels OPERABLE one less than the ~~Minimum~~ REQUIRED Channels ~~OPERABLE requirement~~, immediately suspend operations involving positive reactivity additions and verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 ~~or 3.1.1.2, as applicable~~, within 1 hour and at least once per 12 hours thereafter. 01-04-LG 01-09-M

ACTION 6 - With the number of OPERABLE channels one less than the ~~Total Number of~~ REQUIRED Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: 01-43-A

a. The inoperable channel is placed in the tripped condition within 6 hours. ~~and~~ or 01-19-LS8

b. Reduce Thermal Power to < P-7 within 12 hours ~~The Minimum Channels OPERABLE requirement is met; however,~~ 01-04-LG

Note: The inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~. 01-66-LS05 Q 3.5j

ACTION 7 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided the inoperable channel(s) is (are) placed in the tripped condition within 6 hours or THERMAL POWER is decreased < P-9 in 10 hours. 01-43-A 01-48-LS4

NOTE: The inoperable low Autostop oil pressure channel may be bypassed for up to 4 hours for surveillance testing of other channels.

ACTION 8 - With less than the ~~Minimum Number of~~ Required Channels OPERABLE, within 1 hour determine ~~by observation of the associated permissive annunciator window(s)~~ that the interlock is in its required state for the existing plant condition, or ~~apply Specification 3.0.3~~ be in at least HOT STANDBY within 7 hours. 01-04-LG 01-52-LG 01-12-M

ACTION 8.1 - (new) With one or more Required Channels inoperable, within 1 hour verify the interlock is in its required state for the existing plant condition, or be in at least MODE 2 within 7 hours. 01-12-M

INSERT ACTION 6.1

INSERT ACTION 7.1

DC 3.3-003

Q 3.3-02

Insert for DC 3.3-003

Enclosure 2 page 3/4 ~~3-2, 3-3 and~~ 3-6

Insert ACTION 6.1

With the number of OPERABLE channels one less than the REQUIRED Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours, or

b. Be in MODE 3 within 12hours.

Note: The inoperable channel or one additional channel may be bypassed for up to 4 hours for surveillance testing.

Remove strikeout

TABLE 3.3-1 (Continued)
ACTION STATEMENTS (Continued)

~~ACTION 9 - With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within the next 6 hours.~~ or reduce Thermal Power to <P-7 in 12 hours. Note that the inoperable channel may be bypassed for up to 4 hours for surveillance testing. — 01-49-LS18 — Q1-49

ACTION 10 - With the number of ~~channels~~trains OPERABLE one less than the ~~Minimum~~ ~~Total Number of~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable train to operable status within 1 hour, or be in at least HOT STANDBY within ~~6~~ 7 hours; however, one ~~channel~~train may be bypassed for up to 2 hours for maintenance or surveillance testing ~~per Specification 4.3.1.1~~ provided the other channel is OPERABLE. — 01-04-LG — 01-66-LS45 Q3.3j — 01-13-LS6 — TR 3.3-006

, initiate action to fully insert all rods AND

ACTION 11 - With the number of OPERABLE channels or trains one less than the ~~Minimum~~Required Channels or trains ~~OPERABLE requirement~~, restore the inoperable channel or train to OPERABLE status within 48 hours or ~~open the Reactor trip breakers~~ within the next hour ~~fully insert all rods and~~ place the Rod control System in a condition incapable of rod withdrawal. — 01-04-LG — 01-55-LS39

ACTION 12 - With one of the diverse trip features (Undervoltage or shunt trip attachment) inoperable, restore it to OPERABLE status within 48 hours or ~~declare the breaker inoperable and apply ACTION 10~~ be in at least HOT STANDBY within the next 6 hours. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status. — 01-14-A

ACTION 13 - With the number of OPERABLE channels one less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied: — 01-43-A

DC 3.3 Ed ~~a.~~ ~~The Minimum Channels OPERABLE requirement is met, and~~ — 01-04-LG

a ~~b.~~ The inoperable channel is placed in the tripped conditions within 6 hours; however, the inoperable channel may be bypassed for up to 72 hours for surveillance testing ~~per Specification 4.3.1.1~~ or for performing maintenance, OR — 01-66-LS45 Q3.3j — 01-67-M Q3.3-46

c. Be in MODE 3 in 12 hours.

ACTION 26 - With the number of OPERABLE channels one less than the ~~Minimum~~ Required Channels ~~OPERABLE requirement~~, restore the inoperable Channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing ~~per Specification 4.3.1.1~~ provided the other channel is OPERABLE. — 01-04-LG — 01-66-LS45 Q3.3j

ACTION 27 - With the number of OPERABLE channels less than the ~~Total Number of~~ Required Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected RCS Loop Delta-T channel(s), either: — 01-43-A

a. The Trip Time Delay threshold power level for zero seconds time delay is adjusted to 0% RTP, or

b. With the number of OPERABLE channels one less than the ~~Total Number of~~Required Channels, the affected Steam Generator Water Level-Low-Low channels are placed in the tripped condition. — 01-43-A

Remove Strike Out

~~ACTION 28 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:~~ — ~~01-60-A~~ — 01-19-LS8

~~a. The inoperable channel is placed in the trip condition within 6 hours, and~~

~~b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1.~~, or

c. Reduce Thermal Power to < P-7 within 12 hours. — DC 3.3-003

CHANGE NUMBER	NSHC	DESCRIPTION
01-18	LS7	The CTS requirement to reduce the Power Range Neutron Flux Trip setpoint in the event a power range flux channel is inoperable is deleted. This deletion is consistent with NUREG-1431,and justified by:

1) The loss of one channel does not impact the reliability of the Reactor Trip System because the affected channel is placed in trip. It may, however, impact the tilt monitoring for a portion of the reactor core. If the plant wishes to remain at 100% RTP, then the QPTR must be measured using the movable incore detectors. Otherwise, the power level must be reduced to 75% RTP. If the plant chooses to reduce power rather than measure QPTR using the movable incore detectors, the peaking factor surveillances must still be performed on the required frequency.

2) The loss of one channel does not necessarily indicate any core tilt, but rather the inability to measure core tilt with the excore instrumentation. On this basis, there is no justification for reducing the Trip Setpoint, and incurring the potential for a reactor trip, when there is no indication of an abnormal condition existing in the core.

NUREG-1431 also allows 12 hours to reduce the thermal power to less than 75% RTP rather than the 4 hours required by the CTS.

If the Power Range Neutron Flux trip function is inoperable, but the input to the QPTR is operable, the ISTS do not require that the QPTR be monitored every 12 hours.

If the above ACTIONs are not completed, the plant g must be in MODE 3 within 12 hours. ~~(See also CN 1-53 A)~~ 01-53 DC 33-003

01-19	LS8	This change reflects a revision to current ACTION Statement [6] and 28. If the requirements of current ACTION Statement [6] are not met, LCO 3.0.3 would be entered. In accordance with the ISTS, this ACTION Statement is revised to state that if the ACTION requirements are not met, the plant must be taken below the P-7 interlock setpoint within the next 6 hours. [The APPLICABLE MODES for Functional Units 9, 11, 12, 15, and 16 in CTS Table 3.3-1 are also revised to add new footnote (g).]
01-20	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

CHANGE NUMBER	NSHC	DESCRIPTION
01-43	A	The "Total Number of Channels" columns in CTS Tables 3.3-1 and [3.3-3] and the ["Minimum Channels OPERABLE"] column in CTS Table [3.3-6] and the reference to them in the ACTIONS are relabeled as the "Required Channels" consistent with NUREG-1431. ACTION Statements are revised to use the ITS terminology, "Required Channels". Changing the column titles is purely administrative. The numbers in the columns are adjusted, if necessary. Where the numbers are adjusted, those changes are described in different CNs.
01-44	A	The "MODES For Which Surveillance Is Required" columns in CTS Tables 4.3-1 and 4.3-2 [] and 4.3-3 are deleted since this information is enveloped by CTS Tables 3.3-1 and [3.3-3] and 3.3-6 and is redundant given the integrated OPERABILITY/ SR format in improved TS Tables 3.3.1-1 and 3.3.2-1. DC ALL-002
01-45	M	The Overtemperature [ΔT], Overpower [ΔT], Pressurizer Pressure - High, and Steam Generator Water Level - Low-Low trip functions, which currently reference ACTION Statement [6], are now referenced to new ACTION Statement ~~[2.1]~~ 6.1, consistent with ITS 3.3.1 Condition E. This change is more restrictive since one less hour is available under new ACTION Statement ~~[2.1]~~ 6.1 than under the combination of current ACTION Statement [6] and LCO 3.0.3. Q 1-45-M DC 3.3-003
01-46	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-47	A	A new note (f) is added and applied to the Functional Unit 6.c. The note is for clarification only as the CTS Table 3.3-1 indicates that only 1 channel is required to be OPERABLE and that there is no trip function under these conditions.
01-48	LS4	INSERT 01-48-LS4 ~~CTS ACTION 7 is revised to allow a reduction in power below P-9 in lieu of tripping the inoperable channel. The ACTION is also revised to allow bypassing a tripped channel for four hours for surveillance testing other channels.~~ Note (j) is added to Table 3.3-1, Applicable Modes for Functional Unit 17.a and b that states that the requirements are only applicable above P-9. Q 3.3-02
01-49	LS18	CTS ACTION 9 is ~~deleted and~~ revised ~~ACTION 6 is used~~ to ~~which~~ allow a power reduction below P-7 in lieu of tripping the inoperable channel. Note (g) is added that specifies that Functional Unit 19 of the CTS does not have to be applied until the power level associated with P-7 is reached. The revised ACTION ~~9~~ also allows the tripped channel to be bypassed for up to 4 hours to perform surveillance testing on other channels per WCAP 10271 AND NUREG-1431. Q 1-49-LS18 DC 3.3-003

CHANGE NUMBER	NSHC	DESCRIPTION
01-50	A	~~ACTION [28] of the CTS duplicates CTS ACTION [6] and is deleted.~~ Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). DC 3.3-003
01-51	LG	This change moves the description of the P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [20.e and 20.f]. The Required Channels column for P-7 lists "1 per train" since this is a more appropriate convention for a logic function. These changes are consistent with NUREG-1431. ~~[This change also deletes the surveillance requirements for P-7 per CN 3.3-54 in the ITS since the COTs and channel calibration apply to P-10 and P-13 not to the P-7 logic function.]~~ Q 1-51
01-52	LG	This change moves the specifics on how to verify permissive functions of ACTIONS [8] and [21] to the Bases, consistent with NUREG-1431. This information is more appropriately controlled outside of the TS while the underlying requirement to verify proper permissive operation is unchanged. DC 3.3-004
01-53	~~A~~	~~CTS Table 3.3-1 ACTION Statement [2.c] is revised to be consistent with ITS SR 3.2.4.2, as discussed in CN 4-04-LS-12 in the 3/4.2 package.~~ Not used. Q 1-53
01-54	LS37	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-55	LS39	APPLICABILITY Note [*] and ACTION Statement [11] for Functional Units [1, 6.b, 20, and 21] of CTS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met. As currently worded, these ACTION Statements result in a feedwater isolation signal (FWIS) when in MODE 3 with a T_{avg} less than [554°F. FSAR Table 7.3-3 and FSAR Figure 7.2-1 (sht. 13) detail the FWIS generation on the coincidence of P-4 and low T_{avg}.] A more generic action, which requires that action be initiated to assures the rods are fully inserted and cannot be withdrawn, replaces the specific method of precluding rod withdrawal. The revised APPLICABILITY and ACTION Statements still assure rod withdrawal is precluded. This change does not involve any safety impact and is consistent with traveler TSTF-135. TR 3.3-006
01-56	~~A~~ LS 47	~~The DCPP~~ CTS 3.3.1 ACTION 2.c requires that power be reduced to less than 75% or that SR 4.2.4.2 be performed whenever power is ≥ 50%. This power level requirement should be ≥ 75% since if power is decreased below 75% per the first part of Action 2.c, the required ACTION is complete and in addition, SR 4.2.4.2 is only required for power levels ≥ 75% with one power range detector inoperable. Q 1-56 DC ALL-002

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-18 LS7	The CTS requirement to reduce the Power Range Neutron Flux Trip setpoints in the event a power range flux channel is inoperable is deleted. The time to reduce power below 75% RTP is increased from 4 hours to 12 hours and, if actions are not completed as required, the unit must be in MODE 3 in 12 hours. ~~(See also CN 1-53-A.)~~ AM 28	Yes	Yes	Yes	Yes Q 1-53 Q 3.3-37
01-19 LS8	If the requirements of current ACTION Statement [6] are not met, LCO 3.0.3 would be entered. In accordance with the ISTS, this ACTION Statement is revised to state that, if the ACTION requirements are not met, the plant must be taken below the P-7 interlock setpoint within the next 6 hours. [The Applicability for Functional Units 9, 11, 12, 15, and 16 in CTS Table 3.3-1 is also revised to add new footnote (g).]	Yes	No, see CN 1-61-M.	Yes	Yes
01-20 A	Callaway's current ACTION Statement 31 is reformatted per NUREG-1431 Rev. 1 to require restoration of an inoperable channel within 6 hours or the plant must be taken to MODE 3 within 12 hours. This is an administrative change since the total time to exit the Applicability is unchanged.	No	No	No	Yes
01-21 A	This change reflects the reorganization of the surveillances on the incore/excore axial flux difference. There is no change to the surveillances or how they are performed. See also CN 1-25-A.	Yes	Yes	Yes	Yes
01-22 M	Quarterly COTs have been added for power range - low and intermediate range flux channels. [The requirement to verify the state of P-6 and P-10 has been added for these COTs.]	Yes	Yes	Yes	Yes

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-42 M	This change adds direction to ACTIONS 7, 11, and 13 in CTS Table 3.3-1 to be in MODE 3 within 12 hours, in lieu of LCO 3.0.3 entry, if inoperable EAM/TTD timer(s) or channel(s) aren't tripped within 6 hours.	No, not in current design or TS.	No, not in current design or TS.	No, not in current design or TS.	Yes
01-43 A	The "Total Number of Channels" columns in CTS Tables 3.3-1 and [3.3-3] and the ["Minimum Channels OPERABLE"] column in CTS Table [3.3-6] and the references to them in the ACTIONS are relabeled as the "Required Channels" consistent with NUREG-1431 Rev. 1. ACTION Statements have been revised accordingly.	Yes	Yes	Yes	Yes
01-44 A	This change deletes the "MODES For Which Surveillance Is Required" column in CTS Tables 4.3-1[, 4.3-2] and 4.3-3]. and	Yes	Yes	Yes	Yes DC ALL-002
01-45 M	The Overtemperature [ΔT], Overpower [ΔT], Pressurizer Pressure - High, and Steam Generator Water Level - Low-Low trip functions, which currently reference ACTION Statement [6], are now referenced to new ACTION Statement [~~2.1~~], consistent with ITS 3.3.1 Condition E. This change is more restrictive since one less hour is available under new ACTION Statement [~~2.1~~] than under the combination of current ACTION Statement [6] and LCO 3.0.3.	Yes 6.1	Yes	Yes	Yes DC 3.3-003
01-46 A	ACTION Statement 13 of CTS Table 3.3-1 and ACTION Statement 36 of CTS Table 3.3-3 are revised to reflect operating and testing options that have existed since the SG Water Level Low-Low EAM/TTD design was implemented, but were not listed in the TS since they were not necessarily the options of choice.	No, not in current design or TS.	No, not in current design or TS.	No, not in current design or TS	Yes, reviewed in OL Amendment No. 43 dated April 14, 1989.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-47 A	For DCPP, a new note (f) is added and applied to the Functional Unit 6.c. The note is for clarification only as the CTS Table 3.3-1 indicates that only 1 channel is required to be OPERABLE and that there is no trip function under these conditions.	Yes	No	No	No
01-48 LS4	~~For DCPP, CTS ACTION 7 is revised to allow a reduction in power below P-9 in lieu of tripping the inoperable channel. The action is also revised to allow bypassing a tripped channel for four hours for surveillance testing other channels.~~ Note (j) is added to Table 3.3-1, Applicable Modes for Functional Unit 17.a and b that states that the requirements are only applicable above P-9.	Yes INSERT 01-48-LS4a	No	No	No Q 3.3-02
01-49 LS18	For DCPP, CTS ACTION 9 is ~~deleted and~~ revised to ~~ACTION 6 is used which~~ allows a power reduction below P-7 in lieu of tripping the inoperable channel. Note (g) is added that specifies that Functional Unit 19 of the CTS does not have to be applied until the power level associated with P-7 is reached. The revised ACTION ~~8~~ 9 also allows the tripped channel to be bypassed for up to 4 hours to perform surveillance testing on other channels.	Yes	No	No	No Q 1-49
01-50 A	ACTION [28] of the CTS duplicates CTS ACTION [6] and is deleted.	~~Yes~~ No	Yes	No, not in CTS.	No, not in current TS. Q 1-50
01-51 LG	This change moves the description of the P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [22.e and 22.f] and lists "1 per train" under the Required Channels column. ~~[This change also deletes the surveillance requirements for P-7 per CN 3.3-54 in the ITS since the COTs and channel calibration apply to P-10 and P-13 not to P-7 logic function.]~~	Yes	Yes	Yes	Yes Q 1-51

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

following

NSHC LS8
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS ~~WITHIN~~ THE TECHNICAL SPECIFICATIONS

These   And 28   is ARE   DC 3.3-008

This change reflects a revision to ~~current~~ ACTION Statement [6]. If the requirements of current ACTION Statement [6] are not met, LCO 3.0.3 would be entered. ~~This~~ ACTION Statement ~~is~~ revised to state that if the ACTION requirements are not met, THERMAL POWER must be reduced to below the P-7 interlock setpoint within the next 6 hours. ~~Most of~~ the Functional Units that impose ACTION Statement [6], (:) Pressurizer Pressure - Low, Pressurizer Water Level - High, Reactor Coolant Flow - Low, Two Loops (above P-7 and below P-8), RCP Undervoltage, and RCP Underfrequency() are automatically blocked below P-7 and an Applicability Note has been added accordingly. The Reactor Coolant Flow - Low (Single Loop) reactor trip function does not have to be OPERABLE below the P-8 setpoint; however, the Required Action must take the plant below the P-7 setpoint, if an inoperable channel is not tripped within 6 hours, due to the shared components between this function and the Reactor Coolant Flow - Low (Two Loops) trip function.

Q2-LS GEN   DC ALL-002

which exits the Applicability of   These functions   Q 2-LS GEN

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> 1. *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> 2. *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> 3. *Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

and 16   DC 3.3-Ed

Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change adds a relaxation to the ACTION Statement associated with an inoperable channel in CTS Table 3.3-1 Functional Units [9, 11, 12.a, 12.b, ~~14, and~~ 15] by keeping the end point of the shutdown action above the CTS requirement if an inoperable channel isn't placed in trip within 6 hours. The new ACTION Statement would reduce power to less than P-7 (10% RTP) within the next 6 hours in this situation as compared to entry into LCO 3.0.3 (power ≤ 5% RTP) in the current TS. The proposed change in the ACTION Statement will not affect any of the analysis assumptions for any of the accidents previously evaluated. An LCO 3.0.3 shutdown to ≤ 5% RTP is not required to meet the initial conditions of any accident analysis crediting these trip functions. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation. Therefore, the proposed

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC 3.3-004 **APPLICABILITY:** DC

REQUEST:

Delete JFD 3.3-111 as being applicable to DCPP and restore Enclosure 5A SR 3.3.1.7 to adopt NUREG-1431. This change also deletes CTS Table 4.3-1 note (8) as applicable to the source range monitors and applies new note (20) instead. In MODES 3*, 4*, and 5*, (the * indicates that the Control Rod Drive System is capable of rod withdrawal or all rods are not inserted), the Intermediate Range and Power Range NIS monitors, the source of the interlocks, are not required to be OPERABLE. Thus, the interlock lights are in their "Intermediate and Power Range monitor not powered" condition. Since this information does not verify the OPERABILITY of the interlocks, the note (8) verification is meaningless. Requiring the interlock verification in MODE 2 via new note (22) is meaningful and has been used in place of note (8). DOC 1-52-LG is revised to modify the brackets that incorporated WC 3.3-007, since the requested change is no longer applicable to DCPP. The Bases for SR 3.3.1.7 are revised to note that if SR 3.3.1.8 has been performed for the source range instrumentation in MODE 2 at the required frequency, then the requirements of SR 3.3.1.7 are met.

ATTACHED PAGES:

Encl. 2	3/4 3-13
Encl. 3A	10, 13 and 14
Encl. 3B	8, 13 and 14 of 31
Encl. 4	NSHC Contents and Insert NSHC LS54
Encl. 5A	3.3-14
Encl. 5B	B 3.3-57
Encl. 6A	9
Encl. 6B	17

TABLE 4.3-1 (Continued)

TABLE NOTATIONS

*	-	When ~~the Reactor Trip System breakers are closed and~~ the Control Rod Drive System is capable of rod withdrawal or all rods not fully inserted.	01-55-LS39
##	-	Below P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.	
###	-	Below P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.	
(1)	-	If not performed in previous ~~31~~ 92 days.	01-24-LS9
(1a)	-	If not performed in previous 31 days.	01-24-LS9
(2)	-	Heat balance only, above 15% of RATED THERMAL POWER. During startup in MODE 1 above 15% of RATED THERMAL POWER, the required heat balance shall be performed prior to exceeding 30% of RATED THERMAL POWER, or within 24 hours, whichever occurs first. Adjust channel if absolute difference greater than 2%. ~~The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.~~	01-25 ~~(A)~~ (M) e Q1-25
(3)	-	Compare incore to excore axial flux difference ~~above~~ within 24 hours after Thermal Power is greater that or equal to ~~15~~50% of RATED THERMAL POWER and at least once per 31 Effective Full Power days. Re-calibrate if the absolute difference is greater than or equal to 3%. ~~The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.~~	01-25 ~~(A)~~ (M) e Q1-25
(4)	-	Neutron detectors may be excluded from CHANNEL CALIBRATION.	
(5)	-	~~Detector plateau curves shall be obtained and evaluated for the source range neutron flux channels. For the Intermediate Range and Power Range Neutron Flux channels a test shall be performed that shows allowed variances of detector voltage do not effect detector operation.~~ For the Intermediate Range and Power Range Neutron Flux Channels the provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.	01-26-LG
(6)	-	Incore - Excore Calibration, ~~above~~ within 24 hours after Thermal Power is ≥ 75% of RATED THERMAL POWER and at least once per 92 Effective Full Power days. ~~The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.~~	01-25 ~~(A)~~ (M) e Q1-25
(7)	-	Each train shall be tested at least every ~~62~~ 31 days on a STAGGERED TEST BASIS.	
~~(8)~~	-	~~Quarterly Surveillance in MODES 3*, 4* and 5*~~ ~~Performed quarterly and prior to startup~~ ~~shall also include verification that permissives P-6 and P-10 are in their required state for existing plant conditions by observation of the permissive annunciator window.~~	e ~~01-28-A~~ e 01-68-LS54 DC 3.3-004
(9)	-	Setpoint verification is not applicable.	
~~(10)~~	-	~~The TRIP ACTUATING DEVICE OPERATIONAL TEST shall separately verify the OPERABILITY of the undervoltage and shunt trip attachments of the Reactor Trip Breakers.~~	01-32-LG
(11)	-	Deleted	
(12)	-	Deleted	
(13)	-	Deleted	

CHANGE NUMBER	NSHC	DESCRIPTION
01-26	LG	This change moves the details concerning NIS detector calibration to the Bases for ITS SR 3.3.1.11, consistent with NUREG-1431. This information is more appropriately controlled outside of the TS while the calibration requirement itself and its Frequency are unchanged.
01-27	LS10	Surveillances on the Source Range Neutron Flux trip function are reorganized to reflect plant status in accordance with NUREG-1431. New Note [(19)] requires that the quarterly COT be performed within 4 hours after reducing power below the respective source range instrumentation Applicabilities, if not performed within the previous [92] days. Since the COT is valid for [92] days, there is no need to repeat it if one has been performed within the prior [quarter]. The 4 hour allowance permits a normal shutdown to proceed without a delay for testing in MODE 2 and for a short time in MODE 3 until ~~the Reactor Trip Breakers are opened and~~ all rods are fully inserted and the Rod Control System is rendered incapable of rod withdrawal, after which this trip function no longer provides protection. Since the CTS has no Specification 4.0.4 exception, this 4 hour allowance is less restrictive. TR 3.3-006
01-28	A	~~Note [8] is revised to require the P-6 and P-10 interlock verification to be performed during all source range COTs. These permissives are verified to be in their correct state prior to entry into MODES 3, 4, and 5 during shutdown and after leaving MODES 3, 4, and 5 during startup. These changes are consistent with NUREG-1431.~~ Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). DC 3.3-004
01-29	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-30	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-31	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-32	LG	[ ] [Note (10) of CTS Table 4.3-1 is deleted since it is redundant; every TADOT requires independent UVTA and STA verification per ITS SR 3.3.1.4, not just those TADOTs following maintenance or adjustment.] Notes [(14) and (16) applicable to the RTBs and the RTB bypass breakers] of CTS Table 4.3-1 are moved to the Bases for ITS SR 3.3.1.14. These changes are consistent with NUREG-1431.
01-33	TR1	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-34	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

CHANGE NUMBER	NSHC	DESCRIPTION	
01-50	A	~~ACTION [28] of the CTS duplicates CTS ACTION [6] and is deleted.~~ Not applicable to DCPP, See Conversion Comparison Table (Enclosure 3B).	DC 3.3-003
01-51	LG	~~This change moves the description of the~~ P-7 inputs, i.e., P-10 and P-13, to the Bases since they are duplicated by Functional Units [20.e and 20.f]. The Required Channels column for P-7 lists "1 per train" since this is a more appropriate convention for a logic function. These changes are consistent with NUREG-1431. ~~[This change also deletes the surveillance requirements for P-7 per CN 3.3-54 in the ITS since the COTs and channel calibration apply to P-10 and P-13 not to the P-7 logic function.]~~	Q1-51
01-52	LG	This change moves the specifics on how to verify permissive functions of ACTIONS [8] and [21] to the Bases, consistent with NUREG-1431. This information is more appropriately controlled outside of the TS while the underlying requirement to verify proper permissive operation is unchanged.	DC 3.3-004
01-53	~~A~~	~~CTS Table 3.3-1 ACTION Statement [2.c] is revised to be consistent with ITS SR 3.2.4.2, as discussed in CN 4-04-LS-12 in the 3/4.2 package.~~ Not used.	Q1-53
01-54	LS37	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).	
01-55	LS39	APPLICABILITY Note [*] and ACTION Statement [11] for Functional Units [1, 6.b, 20, and 21] of CTS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met. As currently worded, these ACTION Statements result in a feedwater isolation signal (FWIS) when in MODE 3 with a T_{avg} less than [554°F. FSAR Table 7.3-3 and FSAR Figure 7.2-1 (sht. 13) detail the FWIS generation on the coincidence of P-4 and low T_{avg}.] A more generic action, which requires that action be initiated to assure the rods are fully inserted and cannot be withdrawn, replaces the specific method of precluding rod withdrawal. The revised APPLICABILITY and ACTION Statements still assure rod withdrawal is precluded. This change does not involve any safety impact and is consistent with traveler TSTF-135.	TR 3.3-006
01-56	~~A~~ LS47	~~The DCPP~~ CTS 3.3.1 ACTION 2.c requires that power be reduced to less than 75% or that SR 4.2.4.2 be performed whenever power is ≥ 50%. This power level requirement should be ≥ 75% since if power is decreased below 75% per the first part of Action 2.c, the required ACTION is complete and in addition, SR 4.2.4.2 is only required for power levels ≥ 75% with one power range detector inoperable.	Q1-56 DC ALL-002

CHANGE NUMBER	NSHC	DESCRIPTION
01-57	LG	CTS Table 3.3-1 Functional Units [12.a and 12.b] are combined per Traveler TSTF-169. The Required Channels, ACTION Statement, and Surveillance Requirements are the same for both Functional Units. The only difference between the two is the APPLICABILITY which could lead to entry into ACTION Statement 6 for Functional Unit [12.a], followed by a power reduction below P-8 exiting the APPLICABILITY and required ACTIONs for that Functional Unit, and subsequent re-entry into ACTION Statement 6 for Functional Unit [12.b]. This would involve an improper cumulative AOT of 12 hours before tripping an inoperable channel, beyond that evaluated in WCAP-10271 and its Supplements. The relationships between these Functional Units and permissives P-7 and P-8 are moved to the ITS 3.3.1 Bases.
01-58	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-59	LS46	~~Not Used.~~ INSERT 1-59-LS59 Q 1-51
01-60		Not Used.
01-61	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-01	A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.
02-02	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-04	LG	The requirements stipulated in ACTIONS a and b are moved to ITS Table 3.3.2-1, with explicit direction contained in the ITS ACTIONS Bases.
02-05	M	~~Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).~~ INSERT 2-05 Q 2-05 (3.3)
02-06	LS33	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-62	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-65	A	

INSERT 1-63-A

INSERT 1-64-A

INSERT 1-66-LS45

INSERT 1-67-M

INSERT 1-68-LS54

INSERT 1-69-M

Q 1-A GEN

Q 1-23

Q 3.3 j

Q 3.3-46

DC 3.3-004

DC 3.3-004

insert for DC 3.3-004

Enclosure 3A page 14
Insert 1-68-LS54

1-68 LS54 This change deletes DCPP CTS Table 4.3-1 note (8) which is applicable to the source range. The verification cannot be performed in MODE 3*, 4*, and 5*, since the power and intermediate range channels are not required to be OPERABLE until MODE 2. The only verification that can presently be performed is to verify that the lights are out, which is correct for the required condition, i.e., source range powered and power and intermediate range not powered.

1-69 M This change applies new note (20) to DCPP CTS Table 4.3-1 function 6, source range neutron flux. This requirement replaces the previous note (8) that was deleted by CN 1-68-LS54 and requires that P-6 and P-10 be verified in the required state prior to entering MODE 2.

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-28 A	Note [8] is revised to require the P-6 and P-10 interlock verification to be performed during all source range COTs. These permissives are verified to be in their correct state prior to entry into MODES 3, 4, and 5 during shutdown and after leaving MODES 3, 4, and 5 during startup.	~~Yes~~ No, see CN 1-68-LS54 and 1-69-M.	Yes	Yes	Yes DC 3.3-004
01-29 LG	This change moves the details regarding measurement of loop-specific ΔT values to the BASES for ITS SR 3.3.1.6.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes
01-30 M	Boron Dilution Mitigation System (BDMS) signal blocking and surveillance requirements are moved to ITS LCO 3.3.9. This is a more restrictive requirement since the BDMS, other than the inputs from the source range channels, currently has no LCO or ACTION requirements.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes
01-31 A	One-time surveillance waivers are deleted. They are no longer applicable.	No, not in CTS.	Yes	Yes	Yes
01-32 LG	[ ] {Note (10) of CTS Table 4.3-1 is deleted since it is redundant; every TADOT requires independent UVTA and STA verification per ITS SR 3.3.1.4, not just those TADOTs following maintenance or adjustment.] Notes [(14) and (16)] of CTS Table 4.3-1 are moved to the BASES for ITS SR 3.3.1.14.	Yes	Yes	Yes	Yes
01-33 TR1	The BDMS actuation SR is changed to allow the use of an actual signal, if and when one occurs, to satisfy surveillance requirements.	No, not in CTS.	No, not in CTS.	No, not in CTS.	Yes

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-52 LG	This change moves the specifics on how to verify permissive functions of ACTIONS [8] and [21] to the Bases.	Yes	Yes	Yes	Yes DC 3.3-004
01-53 A	~~CTS Table 3.3-1 ACTION Statement [2.c] is revised to be consistent with ITS SR 3.2.4.2, as discussed in CN 4-04-LS-12 in the 3/4.2 package.~~ Not used.	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA Q 1-53
01-54 LS37	ACTION Statement 5.b of Callaway's CTS Table 3.3-1 is revised to change the 14 day recurring verification of the closed status of the unborated water source isolation valves to 31 days.	No	No	No	Yes
01-55 LS39	Applicability Note [*] and ACTION Statement [11] for Functional Units [1, 6.b, 20, and 21] of CTS Table 3.3-1 are modified to provide an alternative to opening the reactor trip breakers (RTBs) while still assuring that the function and intent of opening the RTBs is met.	Yes	Yes	Yes	Yes
01-56 ~~A~~ LS	The DCPP CTS 3.3.1 Action 2.c requires that power be reduced to less than 75% or that SR 4.2.4.2 be performed whenever power is ≥ 50%. This power level requirement should be ≥ 75% since if power is decreased below 75% per the first part of Action 2.c, the required Action is complete and in addition, SR 4.2.4.2 is only required for power levels ≥ 75% with one power range detector inoperable.	Yes	No	No	No Q 1-56
01-57 LG	CTS Table 3.3-1 Functional Units [12.a and 12.b] are combined per TSTF-169. The relationship between Functional Units is moved to the Bases.	Yes	Yes	Yes	Yes

CONVERSION COMPARISON TABLE - CURRENT TS 3/4.3

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-58 A	The proposed change would allow Reactor Trip System and ESFAS sensor response time testing to be performed per WCAP-13632-P-A Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements," or other similar methodologies. This change is consistent with traveler TSTF-111, which revises the Bases for ITS SR 3.3.1.16 and SR 3.3.2.10 to allow the elimination of pressure sensor response time testing.	No, see CN 1-03-LS1.	Yes	No, see CN 1-03-LS1.	No, see CN 1-03-LS1.
01-59	~~Not Used.~~ INSERT 1-59 - LS46(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No (Q 1-51)
01-60	Not Used.	N/A	N/A	N/A	N/A
01-61 M	If the requirements of current CPSES ACTION Statement 6 are not met, LCO 3.0.3 would be entered. In accordance with the ISTS, this ACTION Statement is revised to state that, if the ACTION requirements are not met, the plant must be taken below the P-7 interlock setpoint within the next 6 hours.	No, see CN-01-19-LS8.	Yes	No, see CN-01-19-LS8.	No, see CN-01-19-LS8.
02-01 A	The Engineered Safety Features Actuation System Instrumentation [Trip Setpoints and] Allowable Values are moved to ITS Table 3.3.2-1.	Yes	Yes	Yes	Yes
02-02 A	CTS ACTION b.1, Equation 2.2-1, and the values for Total Allowance (TA), Z, and Sensor Error (S) are deleted, consistent with NUREG-1431 Rev. 1.	No, not in CTS.	No, not in CTS.	Yes	Yes
02-03 LG	The Engineered Safety Features Actuation System Instrumentation Trip Setpoints are moved to a licensee controlled document.	No, retained in ITS.	Yes, moved to Bases.	Yes, moved to ITS 3.3.2 Bases.	Yes, moved to ITS 3.3.2 Bases.

INSERT 1-63-A(a)
INSERT 1-64-A(a)
INSERT 1-66-LS45(a)
INSERT 1-67-M(a)
INSERT 1-68-LS54(a)
INSERT 1-69-M(a)

Q 1-AGEN
Q 1-23
Q 3.3.j
Q 3.3-46
DC 3.3-004
DC 3.3-004

Insert for DC 3.3-004

Enclosure 3B page 14
Insert 1-68/69a

01-68 LS54	This change deletes DCPP CTS Table 4.3-1 note (8) which is applicable to the source range. The verification cannot be performed in MODE 3*, 4*, and 5* since the power and intermediate range channels are not required to be operable until MODE 2.	Yes; See also CN 1-69-M.	No	No	No
01-69 M	This change applies new note (20) to DCPP CTS Table 4.3-1 function 6, source range neutron flux.	Yes; See also CN 1-68-LS54.	No	No	No

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)
CONTENTS

V. Recurring No Significant Hazards Considerations - "TR"

Insert for DC 3.3-004

Enclosure 4
Insert NSHC LS54

NSHC LS54
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

The CTS in Table 4.3-1 specifies via note (8) that during the Channel Operational Test for the source range neutron monitors in MODE 3, 4, and 5, when the Control Rod Drive System is capable of rod withdrawal or all rods are not inserted, that the P-6 and P-10 interlocks be verified in their required state. Since P-6 and P-10 are initiated by the power and intermediate range neutron flux detectors and they are not required to be OPERABLE until MODE 2, the only verification that can be performed is to verify that the lights are not illuminated. This is the required state for the interlocks under these conditions, but does not provide any useful information to the operator or technician. Therefore, note (8) is deleted and new note (20) is inserted by DOC 1-69-M.

The proposed TS change has been evaluated and it has been determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:*
>
> *1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
>
> *2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
>
> *3. Involve a significant reduction in a margin of safety."*

The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The deletion of note (8) does not change the manner in which the plant is operated or the way in which the surveillance tests are performed. Overall protection system performance will remain within the bounds of the previously performed accident analyses since no hardware changes are proposed. The proposed change will not affect the probability of any event initiators nor will the proposed change affect the ability of any safety-related equipment to perform its intended function. There will be no degradation in the performance of nor an increase in the number of challenges imposed on safety-related equipment assumed to function during an accident situation.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   There are no hardware changes nor are there any changes in the method by which any safety-related plant system performs its safety function. The proposed deletion of note (8) which provides no useful information, has no effect on the types of accidents assumed to occur. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

   The proposed change does not affect the acceptance criteria for any analyzed event. Since there are no safety analysis limits associated with this trip function, the allowed value change does not reduce the margin of safety. There will be no effect on the manner in which safety limits or limiting safety system settings are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no impact on any margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS54" resulting from the conversion to the improved TS format satisfy the NSHC standards of 10 CFR 50.92(c); and accordingly, a NSHC finding is justified.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.1.4	----------NOTE---------- This Surveillance must be performed on the reactor trip bypass breaker, for the local manual shunt trip only, prior to placing the bypass breaker in service. ------------------------ Perform TADOT.	3.3-124 31 days on a STAGGERED TEST BASIS
SR 3.3.1.5	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.1.6	----------NOTE---------- Not required to be performed until ~~24~~ 72 hours after ~~achieving equilibrium conditions with~~ THERMAL POWER ~~is ≥ 50~~ 75% RTP. ------------------------ Calibrate excore channels to agree with incore detector measurements.	B 3.3-06 Q 3.3-06 92 EFPD B
SR 3.3.1.7	----------NOTE---------- ~~1.~~ Not required to be performed for source range instrumentation prior to entering MODE 3 from MODE 2 until 4 hours after entry into MODE 3. ~~2. For source range instrumentation, this Surveillance shall include verification that interlocks P-6 and P-10 are in their required state for existing unit conditions.~~ ------------------------ Perform COT.	B DC 3.3-004 ~~3.3-111~~ 92 days B

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.6 (continued)

A Note modifies SR 3.3.1.6. The Note states that this Surveillance is required only if reactor power is > ~~50~~ 75% RTP and that ~~[24]~~ 72 hours after ~~achieving equilibrium conditions with~~ thermal power is >75% RTP is allowed for performing the first surveillance ~~after reaching 50 75% RTP~~.

(retain strike out) (delete strike out) Q 3.3-26

The Frequency of 92 EFPD is adequate. It is based on industry operating experience, considering instrument reliability and operating history data for instrument drift.

SR 3.3.1.7

SR 3.3.1.7 is the performance of a COT every ~~[~~92~~]~~ days.

A COT is performed on each required channel to ensure the entire channel will perform the intended Function.

Setpoints must be within the Allowable Values specified in Table 3.3.1-1.

(Remove strike out) DC ALL-005

~~The difference between the current "as found" values and the previous test "as left" values must be consistent with the drift allowance used in the setpoint methodology. The setpoint shall be left set consistent with the assumptions of the current unit specific setpoint methodology (trip setpoint value).~~

DC ALL-002

~~The "as found" and "as left" values must also be recorded and reviewed for consistency with the assumptions of Reference 7.~~

(delete strike out) DC 3.3-004

SR 3.3.1.7 is modified by ~~two notes.~~ a Note ~~1~~ ~~that~~ provides a 4 hour delay in the requirement to perform this Surveillance for source range instrumentation when entering MODE 3 from MODE 2. This Note allows a normal shutdown to proceed without a delay for testing in MODE 2 and for a short time in MODE 3 until the RTBs are open and SR 3.3.1.7 is no longer required to be performed. If the unit is to be in MODE 3 with the RTBs closed for > 4 hours this Surveillance must be performed prior to 4 hours after entry into MODE 3. ~~Note 2 requires that the quarterly COT for the source range instrumentation shall include verification by observation of the associated permissive annunciator window that the P-6 and P-10 interlocks are in their required state for the existing unit conditions.~~

DC 3.3-004

INSERT SR 3.3.1.7

The Frequency of ~~[~~92~~]~~ days is justified in Reference 7.

(continued)

[illegible]

Insert for DC 3.3-004

Enclosure 5B page B 3.3-57
Insert SR 3.3.1.7

If this surveillance or if SR 3.3.1.8 has been performed within the previous 92 days, the requirements of this surveillance are satisfied.

Not Applicable to DCPP. See Conversion Comparision Table (Enclosure 6B) DC 3.3-004

CHANGE NUMBER	JUSTIFICATION	
3.3-109	~~Not used.~~ INSERT 3.3-109	Q 8-11
3.3-110	~~Not used.~~ INSERT 3.3-110	DCALL-005
3.3-111	~~This change adds a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the current TS and is an enhancement which is easily performed and provides additional assurance that the interlocks are functioning correctly.~~	DC 3.3-004
3.3-112	~~Not used.~~ INSERT 3.3-112	Q 12-05 (3.6)
3.3-113	~~Not used~~ INSERT 3.3-113	Q 2-05 (2.0)
3.3-114	~~Not used~~ INSERT 3.3-114	Q 3.3-66
3.3-115	Not used.	
3.3-116	ACTION J of ITS 3.3.2 is not used since DCPP does not rely on motor-driven AFW pump start with loss of both main FW pumps. The function exists, but is not credited in any accident analysis and is not part of ESFAS Function 6 in the CTS.	
3.3-117	This change to ITS 3.3.1 Condition R reflects current TS Table [3.3-1, ACTION Statement 12] which was based on NRC Generic Letter 85-09.	
3.3-118	This change is for consistency with ITS 3.7.10 Condition [G].	
3.3-119	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-120	~~ITS 3.3.1 Condition D is revised to reflect ITS SR 3.2.4.2 and CN 3.2-15 in the 3/4.2 package.~~ Not used.	Q 3.3-120
3.3-121	Not applicable to DCPP. See Conversion Comparision Table (Enclosure 6B).	
3.3-122	ITS 3.3.1 APPLICABILITY Note (b) for Functions 1, 5, 19-21 and Conditions C and K are revised to replace ACTIONS requiring the RTBs to be opened with ACTIONS that ensure subcriticality is maintained (i.e., by initiating action to fully insert all rods and ensuring the Rod Control System is incapable of rod withdrawal) yet do not initiate a feedwater isolation (P-4 and low T_{avg}) in MODE 3, consistent with Traveler TSTF-135.	TR 3.3-006
3.3-123	This change deletes ACTION L.2 and renumbers L.3 since the requirement to close the unborated water source valves is not in the CTS and is not part of the current licensing basis. This new requirement is not applicable to DCPP which has a licensed dilution accident evaluation (refer to License Amendment 28/27). The current licensing bases in accordance with NUREG 0800, Section 15.4.6 provides adequate assurance that a dilution event will be recognized and arrested in a timely fashion.	DC 3.3-Ed
3.3-124	Consistent with the current TS Table 4.3-1, Note [15], the note for ITS SR 3.3.1.4 is modified, a note is added to Table 3.3.1-1, and Function 20 are modified to clarify that the SR is required for the reactor trip bypass breaker local manual shunt trip only. The Bases for SR 3.3.1.14 clearly state that SR 3.3.1.14 includes the automatic undervoltage trip of the reactor trip bypass breakers. The Note (k) added to Table 3.3.1-1, Function 20 clarifies the Applicability of the undervoltage and shunt trip mechanisms to include those functions of the reactor trip bypass breakers when in use.	

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.3-103	Function 11 of ITS Table 3.3.1-1 is revised per the DCPP CTS to reflect the current plant design of only a two loop trip. With this revision Condition O is no longer used, since it was only applicable to the single loop trip.	Yes	No	No	No
3.3-104	CONDITION A of ITS 3.3.5 is revised to incorporate CTS ACTIONS 15 and 16. CONDITIONS B and C are not used.	Yes	No, see CN 3.3-131.	No, see CN 3.3-99.	No, see CN 3.3-99.
3.3-105	Function 4.d.(2) of ITS Table 3.3.2-1 and notes (c) and (h) are revised per the DCPP CTS.	Yes	No, see CN 3.3-12.	No, see CN 3.3-12.	No, see CN 3.3-12.
3.3-106	Delete ISTS Required Actions B.2.2 and U.2.2. These Required Actions are not needed due to exiting the APPLICABILITY via Required Actions B.2.1 and U.2.1.	Yes	Yes	Yes	Yes
3.3-107	Based upon operating experience to change Thermal Power in a controlled fassion without challenging the plant and consistent with the CTS which does not have a Completion Time for restoring one channel to OPERABLE ststus; but does pervent going above P-10 until it is restored, the Completion Time for ITS 3.3.1 Required Actions F.1 and F.2 should be increased to 24 hours.	Yes	Yes	Yes	Yes
3.3-108	~~Not used.~~ INSERT 3.3-108(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 20H(20)
3.3-109	~~Not used~~ INSERT 3.3-109(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 8-17
3.3-110	~~Not used~~ INSERT 3.3-110(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q DCPLL 005
3.3-111	Add a Note to ITS SR 3.3.1.7 for source range instrumentation to verify interlocks P-6 and P-10 are in their required state for existing unit conditions. This is consistent with the CTS.	~~Yes~~ No, Adopted ISTS.	Yes	No-see CN 3.3-48.	Yes DC 3.3-004
3.3-112	~~Not used~~ INSERT 3.3-112(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ No Q 12-05 (3.6)
3.3-113	~~Not used~~ INSERT 3.3-113(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 2-05 (2.0)
3.3-114	~~Not used.~~ INSERT 3.3-114(a)	~~N/A~~ Yes	~~N/A~~ No	~~N/A~~ No	~~N/A~~ Q 3.3-66 No

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC 3.3-005 **APPLICABILITY:** DC

REQUEST:

Revise Enclosure 5B to include information previously deleted via strike-out or not included in the original submittal.

ATTACHED PAGES:

Encl. 5B B 3.3-4, B 3.3-60, B 3.3-61, B 3.3-85, B 3.3-114

BASES

BACKGROUND

Signal Process Control and Protection System (continued)

prevent the protection function actuation. These requirements are described in IEEE-279-1971 (Ref. 4). The actual number of channels required for each unit parameter is specified in Reference 1.

Two logic channels are required to ensure no single random failure of a logic channel will disable the RTS. The logic channels are designed such that testing required while the reactor is at power may be accomplished without causing ~~a~~ trip. INSERT BASES (1) Insert

Q3.3.6-1 DC 3.3-005 DC3.3-Ed

Trip Setpoints and Allowable Values

two sided tolerance CA 3.3-014

The Trip Setpoints are the nominal values at which the bistables are set. Any bistable is considered to be properly adjusted when the "as left" value is within the band for CHANNEL CALIBRATION ~~accuracy~~ tolerance ~~(i.e., ± rack calibration + comparator setting accuracy)~~. INSERT B 3.3.1 BKG (B)

DC ALL-005

The Trip Setpoints used in the bistables are based on the analytical limits stated in Reference 1. The selection of these Trip Setpoints is such that adequate protection is provided when all sensor and processing time delays are taken into account. To allow for calibration tolerances, instrumentation uncertainties, instrument drift, and severe environment errors for those RTS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 5), the Trip Setpoints and Allowable Values specified in Table 3.3.1-1 in the accompanying LCO are conservatively adjusted with respect to the analytical limits. A detailed description of the methodology used to calculate the Trip Setpoints, including their explicit uncertainties, is provided in the ~~"RTS/ESFAS Setpoint Methodology~~ ~~Study"~~ WCAP-11082, Rev. 2, "Westinghouse Setpoint Methodology for Protection Systems Diablo Canyon Station - Eagel 21 Version," May 1993 (Ref. 6). The actual nominal Trip Setpoint entered into the bistable is more conservative than that specified by the Allowable Value to account for changes in random measurement errors detectable by a COT. One example of such a change in measurement error is drift during the surveillance interval. If the measured setpoint does not exceed the Allowable Value, the bistable is considered OPERABLE.

Q3.3.6-1

INSERT B 3.3.1 BKG (D)

DC ALL-005

(continued)

[illegible]

[illegible]

Insert for DC 3.3-005

Enclosure 5B page B 3.3-4
Insert Bases (1)

The Process Protection System is designed to permit any one channel to be tested and maintained at power in a bypass mode. If a channel has been bypassed for any purpose, the bypass is continuously indicated in the control room as required by applicable codes and standards. As an alternative to testing in the bypass mode, testing in the trip mode is also possible and permitted.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.11 (continued)

plateau ~~or preamp discriminator~~ curves, evaluating those curves, and comparing the curves to the manufacturer's data. For the intermediate range and power range channels, a test shall be performed that shows allowed variances of detector voltage do not effect detector operation. This ~~Surveillance~~ SR is also modified by Note 2 3 stating that this surveillance is not required to be performed ~~until reactor power exceeds P-6~~ ~~for the NIS power range detectors for entry into MODE 2 or 1, and is not required for the NIS intermediate range detectors for entry into MODE 2,~~ because the unit must be in at least MODE 2 to perform the test for the intermediate range detectors and MODE 1 for the power range detectors. ~~The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown these components usually pass the Surveillance when performed on the [18] month Frequency.~~ The source range plateau curves are obtained under the conditions that apply during a plant outage.

DC 3.3-005

Remove Strike Out

24 DC ALL-005

The ~~18~~ 24 month Frequency is based on past operating experience, which has shown these components usually pass the Surveillance when performed on the ~~18~~ 24 month Frequency. The conditions for obtaining the source range plateau curves and the power and intermediate range detector voltages are described above. The other remaining portions of the CHANNEL CALIBRATIONS may be performed either during a plant outage or during plant operation.

SR 3.3.1.12

24 DC ALL-005

SR 3.3.1.12 is the performance of a CHANNEL CALIBRATION of the seismic trip, ~~as described in SR 3.3.1.10,~~ every ~~[18]~~ 24 months. ~~This SR is modified by a Note stating that this test shall include verification of the RCS resistance temperature detector (RTD) bypass loop flow rate.~~

CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy.

~~This test will verify the rate lag compensation for flow from the core to the RTDs.~~

24 DC ALL-005

The Frequency is justified by the assumption of an ~~18~~ 24 month calibration interval in the determination of the magnitude of equipment drift in the setpoint analysis.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.1.13

SR 3.3.1.13 is the performance of a COT of RTS interlocks every ~~[18]~~ (24) months. DC ALL-005

The Frequency is based on the known reliability of the interlocks and the multichannel redundancy available, and has been shown to be acceptable through operating experience.

SR 3.3.1.14

(24) DC ALL-001

SR 3.3.1.14 is the performance of a TADOT of the Manual Reactor Trip, RCP Breaker Position, Seismic Trip and the SI Input from ESFAS. This TADOT is performed every ~~[18]~~ months. The test shall independently verify the OPERABILITY of the undervoltage and shunt trip mechanisms for the Manual Reactor Trip Function for the Reactor Trip Breakers and Reactor Trip Bypass Breakers. The Reactor Trip Bypass Breaker test shall include testing of the automatic undervoltage trip.

The Frequency is based on the known reliability of the Functions and the multichannel redundancy available, and has been shown to be acceptable through operating experience.

The SR is modified by a Note that excludes verification of setpoints from the TADOT. The Functions affected have no setpoints associated with them, except for the Seismic Trip that is calibrated by SR 3.3.1.12 at the same 24 month frequency. DC 3.3-005

SR 3.3.1.15

SR 3.3.1.15 is the performance of a TADOT of Turbine Trip Functions. This TADOT is as described in SR 3.3.1.4, except that this test is performed prior to reactor startup. A Note states that this Surveillance is not required if it has been performed within the previous 31 days. Verification of the Trip Setpoint does not have to be performed for this Surveillance. Performance of this test will ensure that the turbine trip Function is OPERABLE prior to taking the reactor critical. This test cannot be performed with the reactor at power and must therefore be performed prior to reactor startup. Q 3.3-55

SR 3.3.1.16

SR 3.3.1.16 verifies that the individual channel/train actuation response times are less than or equal to the maximum values assumed in the accident analysis. And the individual functions requiring RESPONSE TIME verification Response time testing acceptance criteria are included in ~~Technical Requirements Manual, Section 15 (Ref. 8)~~ the FSAR (Ref. 1). Individual component response times are not modeled in the analyses.

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

3. Containment Isolation (continued)

actuation of Phase A Containment Isolation also actuates Containment ~~Purge and Exhaust~~ Ventilation Isolation.

The Phase B signal isolates CCW. This occurs at a relatively high containment pressure that is indicative of a large break LOCA or an SLB. For these events, forced circulation using the RCPs is no longer desirable. Isolating the CCW at the higher pressure does not pose a challenge to the containment boundary because the CCW System is a closed loop inside containment. Although some system components do not meet all of the ASME Code requirements applied to the containment itself, the system is continuously pressurized to a pressure greater than the Phase B setpoint. Thus, routine operation demonstrates the integrity of the system pressure boundary for pressures exceeding the Phase B setpoint. Furthermore, because system pressure exceeds the Phase B setpoint, any system leakage prior to initiation of Phase B isolation would be into containment. Therefore, the combination of CCW System design and Phase B isolation ensures the CCW System is not a potential path for radioactive release from containment.

INSERT BASES (2)

DC 3.3-005

Phase B containment isolation is actuated by ~~Containment Pressure—High 3 or~~ Containment Pressure—High High, or manually, via the automatic actuation logic, as previously discussed. For containment pressure to reach a value high enough to actuate ~~Containment Pressure—High 3 or~~ Containment Pressure—High High, a large break LOCA or SLB must have occurred and containment spray must have been actuated. RCP operation will no longer be required and CCW to the RCPs is, therefore, no longer necessary. The RCPs can be operated with seal injection flow alone and without CCW flow to the thermal barrier heat exchanger.

Manual Phase B Containment Isolation is accomplished by the same switches that actuate Containment Spray. When the two switches ~~in either set~~ are ~~turned~~operated simultaneously, Phase B Containment Isolation and Containment Spray will be actuated in both trains.

(continued)

[illegible]

[illegible]

Insert for DC 3.3-005

Enclosure 5B page B 3.3-85
Insert Bases (2)

except for leakage in a containment fan cooler coil following an accident. The radioactivity associated with the leak would actuate the CCW system radiation monitor. The monitor in turn would annunciate in the control room and close the vent valve located just up-stream of the CCW surge tank back-pressure regulator to prevent the regulator from venting after sensing high tank pressure. The operator could then take appropriate action to isolate the failed component. In addition to the radiation monitoring system, the condition of high level and high pressure in the surge tank would be annunciated as the tank filled. If the in-leakage continues after the vent is closed, the surge tank pressure would increase until the high surge tank pressure alarm annunciated and the relief valve setpoint was reached. The relief valve on the surge tank will protect the surge tank from overpressurization. Relief valve discharge from the CCW surge tank is routed to the skirted area under the surge tank, which then enters a floor drain routed to the auxiliary building sump.

BASES

ACTIONS

D.1, D.2.1, and D.2.2 (continued)

- ~~Containment Pressure – High 2,~~ High – High Q 3.3-66

Steam Line Isolation –

- Steam Line Pressure – Negative Rate – High; DC ALL-002
- Steam Line Pressure – Low;
- ~~High Steam Flow Coincident With Safety Injection Coincident With T_{avg} – Low Low;~~
- ~~High-High Steam Flow Coincident With Safety Injection;~~
- ~~High Steam Flow in Two Steam Lines Coincident With T_{avg} – Low Low;~~ (Add Strike out) DC ALL-002

Auxiliary Feedwater –

- SG Water level – Low Low ~~(two, three, and four loop units)~~; ~~and~~
- ~~SG Water level – High High (P-14) (two, three, and four loop units)~~.

If one channel is inoperable, 6 hours are allowed to restore the channel to OPERABLE status or to place it in the tripped condition. Generally this Condition applies to functions that operate on two-out-of-three logic (excluding pressurizer pressure – low ~~and containment pressure high – high~~). Therefore, failure of one channel places the Function in a two-out-of-two configuration. ~~One~~ The inoperable channel must be tripped to place the Function in a one-out-of-~~three~~two configuration that satisfies redundancy requirements. Insert Bases (3) DC 3.3-005 Q 3.3-66

which is two-out-of-four due to its control input function

Failure to restore the inoperable channel to OPERABLE status or place it in the tripped condition within 6 hours requires the unit be placed in MODE 3 within the following 6 hours and MODE 4 within the next 6 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. In MODE 4, these Functions are no longer required OPERABLE.

The Required Actions are modified by a Note that allows the inoperable channel or one additional channel to be bypassed for up to ~~[4]~~ hours for surveillance testing of other channels. The 6 hours allowed to restore the channel to OPERABLE status or to place the inoperable channel in the tripped condition, and the 4 hours allowed for testing, are justified in Reference 8.

remove redline Q 3.3.6-1.

(continued)

[illegible]

[illegible]

Insert for DC 3.3-005

Enclosure 5B page B 3.3-114
Insert Bases (3)

Since pressurizer pressure is used for control and SSPS input, its coincidence is two-out-of-four to provide to required reliability and redundancy. Failure of one channel places the function in a two-out-of three configuration. The inoperable channel must be placed in the tripped condition to place the Function in a one-out-of three configuration that satisfies the reliability and redundancy requirements.

[illegible]

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: TR-3.3-003 & TR 3.3-005 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Revise Enclosure 5A Traveler Status Sheet to show TSTF-169 as "Approved by NRC" and to delete any reference to TSTF-91 which was rejected by NRC (FLOG never incorporated TSTF-91).

ATTACHED PAGES:

Enclosure 5A Traveler Status Sheet

INDUSTRY TRAVELERS APPLICABLE TO SECTION 3.3

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	NA	~~Not~~ NRC approved ~~as of traveler cut off date.~~ changes Bases only TR 3.3-004
~~TSTF-36, Rev. 2~~	~~Incorporated~~	~~3.3-34~~	Q 3.3-34
TSTF-37, Rev. 1	Not Incorporated	NA	ITS 5.6.8 still addresses PAM reports. Sections after ITS 5.6.7 were not renumbered.
TSTF-51	Not Incorporated	NA	Requires plant-specific reanalysis to establish decay time dependence for fuel handling accident.
~~TSTF-91~~	~~Not Incorporated~~	~~NA~~	~~[Trip Setpoints and] Allowable Values for loss of voltage and degraded voltage will remain in the TS.~~ TR 3.3-005
TSTF-111, Rev. 4	Incorporated	NA	Q 1-03
TSTF-135, Rev. 1	Partially Incorporated 3.3-90 3.3-91 3.3-106	3.3-41, 3.3-44, 3.3-93, 3.3-95, 3.3-122 3.3-142	~~Traveler is too broad scope in nature; should have been separate travelers. Portions of the traveler that significantly clarify operability requirements have been incorporated.~~ TR 3.3-006
TSTF-161, Rev. 1	Incorporated	3.3-79	Approved by NRC Q 3.3-79
TSTF-168	Incorporated	3.3-43	Approved by NRC. Q 3.3-43
TSTF-169	Incorporated	3.3-42	Approved by NRC. TR 3.3-003
~~WOG-106~~ TSTF-242	Incorporated	3.3-49	Q 3.3-49
~~Proposed Traveler~~ TSTF-246	Incorporated	3.3-107	~~WOG Mini-group Action Item # 45~~ Q 3.3-107

[illegible]

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: TR-3.3-004 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Incorporate NRC-approved traveler TSTF-19 Rev. 1.

ATTACHED PAGES:

Encl. 5A	Traveler Status Sheet
Encl. 5B	B 3.3-59, 127, 148, 154

INDUSTRY TRAVELERS APPLICABLE TO SECTION 3.3

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	NA	~~Not~~ NRC approved changes ~~as of traveler cut off date.~~ Bases only TR 3.3-004
~~TSTF-36, Rev. 2~~	~~Incorporated~~	~~3.3-34~~	Q 3.3-34
TSTF-37, Rev. 1	Not Incorporated	NA	ITS 5.6.8 still addresses PAM reports. Sections after ITS 5.6.7 were not renumbered.
TSTF-51	Not Incorporated	NA	Requires plant-specific reanalysis to establish decay time dependence for fuel handling accident.
~~TSTF-91~~	~~Not Incorporated~~	~~NA~~	~~[Trip Setpoints and] Allowable Values for loss of voltage and degraded voltage will remain in the TS.~~ TR 3.3-005
TSTF-111, Rev. ~~X~~ 4	Incorporated	NA	Q 1-03
TSTF-135, Rev. 1	Partially Incorporated 3.3-90 3.3-91 3.3-106	3.3-41, 3.3-44, 3.3-93, 3.3-95, 3.3-122 3.3-142	~~Traveler is too broad scoope in nature; should have been separate travelers. Portions of the traveler that significantly clarify operability requirements have been incorporated.~~ TR 3.3-006
TSTF-161, Rev. 1	Incorporated	3.3-79	Approved by NRC Q 3.3-79
TSTF-168	Incorporated	3.3-43	Approved by NRC. Q 3.3-43
TSTF-169	Incorporated	3.3-42	Approved by NRC. TR 3.3-003
~~WOG-106~~ TSTF-242	Incorporated	3.3-49	Q 3.3-49
~~Proposed Traveler~~ TSTF-246	Incorporated	3.3-107	~~WOG Mini-group Action Item # 45~~ Q 3.3-107

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.9 (continued)

The SR is modified by a Note that excludes verification of setpoints from the TADOT. Since this SR applies to RCP undervoltage and underfrequency relays, setpoint verification requires elaborate bench calibration and is accomplished during the CHANNEL CALIBRATION.

SR 3.3.1.10 24 DC ALL-005

A CHANNEL CALIBRATION is performed every ~~[18]~~ months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy.

Remove Strike-out

CHANNEL CALIBRATIONS must be performed consistent with the assumptions of the ~~unit specific~~ DCPP setpoint methodology. ~~The difference between the current "as found" values and the previous test "as left" values must be consistent with the drift allowance used in the setpoint methodology.~~ DC ALL-005

DC ALL-005

The Frequency of ~~18~~ 24 months is based on the ~~assumption of an 18 month~~assumed calibration interval in the determination of the magnitude of equipment drift in the setpoint methodology.

SR 3.3.1.10 is modified by a Note stating that this test shall include verification that the time constants are adjusted to the prescribed values where applicable.

SR 3.3.1.11 24 DC ALL-005

SR 3.3.1.11 is the performance of a CHANNEL CALIBRATION, as described in SR 3.3.1.10, every ~~[18]~~ months. This SR is modified by ~~a~~ ~~two~~ three Notes. ~~stating~~ Note 1 states that neutron detectors are excluded from the CHANNEL CALIBRATION. Note 2 states that the test shall include verification that the time constants are adjusted to the prescribed values where applicable. The CHANNEL CALIBRATION for the power range neutron detectors consists of a normalization of the detectors based on a power calorimetric and flux map performed above 15% RTP. The CHANNEL CALIBRATION for the source range ~~and intermediate range~~ neutron detectors consists of obtaining the detector

INSERT SR 3.3.1.10

TR 3.3-004
TR 1.0-006

(continued)

Insert for TR 3.3-004

Enclosure 5B page B 3.3-59
Insert SR 3.3.1.10

Whenever an RTD is replaced in Functions 6, 7, or 14, the next required CHANNEL CALIBRATION of the RTDs is accomplished by an inplace cross calibration that compares the other sensing elements with the recently installed sensing element.

DC ALL-002

BASES

(except AFW; see SR 3.3.2.13)

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.2.8

24 DC ALL-001

SR 3.3.2.8 is the performance of a TADOT. This test is a check of the Manual Actuation Functions ~~and AFW pump start on trip of all MFW pumps~~. It is performed every ~~[18]~~ 24 months. Each Manual Actuation Function is tested up to, and including, the master relay coils. In some instances, the test includes actuation of the end device (i.e., pump starts, valve cycles, etc.). The Frequency is adequate, based on industry operating experience and is consistent with the typical refueling cycle. The SR is modified by a Note that excludes verification of setpoints during the TADOT for manual initiation Functions. The manual initiation Functions have no associated setpoints.

SR 3.3.2.9

SR 3.3.2.9 is the performance of a CHANNEL CALIBRATION.

A CHANNEL CALIBRATION is performed every ~~[18]~~ 24 months, ~~or approximately at every refueling~~. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to measured parameter within the necessary range and accuracy. DC ALL-005

CHANNEL CALIBRATIONS must be performed consistent with the assumptions of the unit specific setpoint methodology. ~~The difference between the current "as found" values and the previous test "as left" values must be consistent with the drift allowance used in the setpoint methodology.~~

Remove Strike Out DC ALL-005

INSERT 3.3.2.9

The Frequency of ~~[18]~~ 24 months is based on the assumption of an ~~[18]~~ 24 month calibration interval in the determination of the magnitude of equipment drift in the setpoint methodology. DC ALL-005

This SR is modified by a Note stating that this test should include verification that the time constants are adjusted to the prescribed values where applicable.

SR 3.3.2.10

This SR ensures the individual channel ESF RESPONSE TIMES are less than or equal to the maximum values assumed in the

TR 3.3-004

(continued)

Insert for TR 3.3-004

Enclosure 5B page B 3.3-127
Insert SR 3.3.2.9

Whenever an RTD is replaced in Function 6.d., the next required CHANNEL CALIBRATION of the RTDs is accomplished by an inplace cross calibration that compares the other sensing elements with the recently installed sensing element.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.3.1 (continued)

it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION. The high radiation instrumentation should be compared to similar unit instruments located throughout the unit.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including isolation, indication, and readability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit. If the channels are within the criteria, it is an indication that the channels are OPERABLE.

As specified in the SR, a CHANNEL CHECK is only required for those channels that are normally energized. The Containment Hydrogen Concentration monitors are maintained in a "standby" condition which does not energize all of the monitor components, thus the monitors are not considered "normally energized".

The Frequency of 31 days is based on operating experience that demonstrates that channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.3.2

May consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.

A CHANNEL CALIBRATION is performed every ~~[18]~~ 24 months, ~~or~~ approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to measured parameter with the necessary range and accuracy. ~~This SR is modified by a two Notes. that Note 1 excludes neutron detectors from CHANNEL CALIBRATION. The calibration method for neutron detectors is specified in the Bases of LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation." Note 2 discusses an allowed methodology for calibrating the~~ CHANNEL CALIBRATION of the Containment Radiation Level (High Range) Function. The Frequency is based on operating experience and consistency with the typical industry refueling cycle.

DC AU-005

Q8-11

Q 3.3-20

REFERENCES

1. ~~[Unit specific document (e.g.,~~ FSAR, ~~NRC Regulatory Guide 1.97 SER letter).]~~ 7.5.

2. Regulatory Guide 1.97, ~~[date]~~ Revision 3.

3. NUREG-0737, Supplement 1, "TMI Action Items."

INSERT SR 3.3.3.3

Q 12-05 (3.6)

INSERT SR 3.3.3.2
TR 3.3-004

(continued)

Insert for TR 3.3-004

Enclosure 5B page B 3.3-148
Insert SR 3.3.3.2

Whenever an RTD is replaced in Functions 3 or 4, the next required CHANNEL CALIBRATION of the RTDs is accomplished by an inplace cross calibration that compares the other sensing elements with the recently installed sensing element. Whenever an incore thermocouple is replaced in Function 15, 16, 17, or 18 the next required CHANNEL CALIBRATION of the incore thermocouples is accomplished by an inplace cross calibration that compares the other sensing elements with the recently installed sensing element.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.4.1 (continued)

within the criteria, it is an indication that the channels are OPERABLE. ~~If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit.~~ If the channels are normally off scale during times when Surveillance is required, the CHANNEL CHECK will verify only that they are off scale in the same direction. Offscale low current loop channels are verified to be reading at the bottom of the range and not failed downscale.

~~As specified in the Surveillance, a CHANNEL CHECK is only required for those channels which are normally energized.~~

The Frequency of 31 days is based upon operating experience which demonstrates that channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.4.2

SR 3.3.4.2 verifies each required Remote Shutdown System control circuit and transfer switch performs the intended function. This verification is performed from the ~~remote~~ hot shutdown panel and locally, as appropriate. Operation of the equipment from the remote shutdown panel is not necessary. The Surveillance can be satisfied by performance of a continuity check. This will ensure that if the control room becomes inaccessible, the unit can be placed and maintained in MODE 3 from the remote shutdown panel and the local control stations. The ~~[18]~~ month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. (However, this Surveillance is not required to be performed only during a unit outage.) Operating experience demonstrates that remote shutdown control channels usually pass the Surveillance test when performed at the ~~[18]~~ month Frequency.

9 24 DC ALL-005

SR 3.3.4.3

CHANNEL CALIBRATION is a complete check of the instrument loop and the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy.

The channel calibration is not applicable to the RTB indication.

INSERT SR 3.3.4.3 TR 3.3-004

(continued)

Insert for TR 3.3-004

Enclosure 5B page B 3.3-154
Insert SR 3.3.4.3

Whenever an RTD is replaced in Function 3.a or 3.b, the next required CHANNEL CALIBRATION of the RTDs is accomplished by an inplace cross calibration that compares the other sensing elements with the recently installed sensing element.