1.0 USE AND APPLICATION

1.~~01~~1 DEFINITIONS

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications and Bases. 01-01-A

ACTIONS

1.1 ACTIONS shall be that part of a Specification ~~which~~ that prescribes ~~remedial measures~~ required actions to be taken under designated conditions within specified completion times. 01-01-A

ACTUATION LOGIC TEST

1.2 An ACTUATION LOGIC TEST shall be the application of various simulated or actual input combinations in conjunction with each possible interlock logic state and the verification of the required logic output. The ACTUATION LOGIC TEST as a minimum shall include a continuity check ~~as a minimum~~ of output devices. required for OPERABILITY of a logic circuit 01-01-A

Q1.1-2

CHANNEL OPERATIONAL TEST (COT)

1.3 A ~~CHANNEL OPERATIONAL TEST~~ COT shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify ~~the~~ OPERABILITY ~~of the required alarm, interlock, including all components in the channel, such as alarms, interlocks, displays, and/or trip functions required to perform the specified safety function(s).~~ The COT may be performed by means of any series of sequential, overlapping, or total channel steps ~~so that the entire channel is tested~~. The ~~CHANNEL OPERATIONAL TEST~~ COT shall include adjustments, as necessary, of the required alarm, interlock and/~~or~~ trip setpoints ~~such~~ so that the setpoints are within the ~~required~~ range and accuracy. 01-01-A 01-32-A 01-30-A

required for channel OPERABILITY such

of all devices in the channel required for channel OPERABILITY.

necessary

Q1.1-1

Q1.1-2

AXIAL FLUX DIFFERENCE (AFD)

1.4 ~~AXIAL FLUX DIFFERENCE~~ AFD shall be the difference in normalized flux signals between the top and bottom halves of an ~~two-section~~ excore neutron detector. 01-01-A

CHANNEL CALIBRATION

necessary

1.5 A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel ~~such~~ so such that it responds within the ~~required~~ range and accuracy to known ~~values of input~~. The CHANNEL CALIBRATION shall encompass ~~the entire channel including the required sensor, s and alarm, interlock and/or trip functions. these components such as sensors, alarms, displays, and trip functions required to perform the specified safety function(s)~~, and may be performed by any series of sequential, overlapping calibrations or total channel steps ~~such that the entire channel is~~. 01-32-A

means of

Q1.1-2

all devices in the channel required for channel OPERABILITY

values of the parameter that the channel monitors

1.0 USE AND APPLICATION

For Information Only

1.~~01~~1 DEFINITIONS

Q1.1-2

~~calibrated.~~ Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. ~~Whenever a sensing element is replaced the next required CHANNEL CALIBRATION shall include an in-place cross calibration that compares the other sensing elements with the recently installed sensing element.~~ 01-03-M

TR1.0-006

CHANNEL CHECK

1.6 A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation ~~by observation~~. This determination shall include, where possible, comparison of the channel indication and~~/or~~ status ~~with~~ to other indications ~~and/~~or status derived from independent instrument channels measuring the same parameter. 01-01-A

1.0 USE AND APPLICATION

1.01 DEFINITIONS

~~IDENTIFIED~~ LEAKAGE shall be:

1.17 a. ~~IDENTIFIED~~ Identified LEAKAGE ~~shall be:~~

1 ~~a.~~ ~~Leakage, except CONTROLLED LEAKAGE, into closed systems.~~ LEAKAGE such as that from pump seals or valve packing ~~leaks~~(except reactor coolant pump (RCP) seal water injection or leakoff) that ~~are~~ is captured and conducted to ~~a~~ collection systems or a sump or collecting tank; ~~or~~ 01-11-A

2 ~~b.~~ ~~Leakage~~ LEAKAGE into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be ~~PRESSURE BOUNDARY~~ pressure boundary LEAKAGE; or

3 ~~c.~~ Reactor Coolant System ~~leakage~~ (RCS) LEAKAGE through a steam generator (SG) to the Secondary ~~Coolant~~ System.

b. Unidentified LEAKAGE

All LEAKAGE (except RCP seal water injection or leakoff) that is not identified LEAKAGE; 01-11-A

c. Pressure Boundary LEAKAGE

LEAKAGE (except SG LEAKAGE) through a nonisolable fault in an RCS component body, pipe wall, or vessel wall.

MASTER RELAY TEST

1.18 A MASTER RELAY TEST shall ~~be the energization of~~ consist of energizing each required master relay and ~~verification of~~ verifying the OPERABILITY of each required master relay. The MASTER RELAY TEST shall include a continuity check of each associated required slave relay. Q1.1-1 01-01-A

~~MEMBER(S) OF THE PUBLIC~~ 01-12-A

~~1.19 MEMBER(S) OF THE PUBLIC shall include all persons who are not occupationally associated with the plant. This category does not include employees of the licensee, its contractors, or vendors. Also excluded from this category are persons who enter the site to service equipment or to make deliveries. This category does include persons who use portions of the site for recreational, occupational, or other purposes not associated with the plant.~~

The MASTER RELAY TEST may be performed by means of any series of sequential, overlapping, or total steps.

1.0 USE AND APPLICATION

1.~~01~~ DEFINITIONS

REACTOR TRIP SYSTEM (RTS) RESPONSE TIME

1.29 The ~~REACTOR TRIP SYSTEM~~ RTS RESPONSE TIME shall be the time interval from when the monitored parameter exceeds its RTS trip setpoint at the channel sensor until loss of stationary gripper coil voltage. The response time may be verified by means of any series of sequential, overlapping, or total steps so that the entire response time is verified. 01-08-A

~~REPORTABLE EVENT~~

~~1.30 A REPORTABLE EVENT shall be any of those conditions specified in Section 50.73 of 10 CFR Part 50.~~ 01-19-A

SHUTDOWN MARGIN (SDM)

1.31 ~~SHUTDOWN MARGIN~~ SDM shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming:

a) All ~~full length~~ rod cluster control assemblies (RCCAs) ~~(shutdown and control)~~ are fully inserted except for the single ~~rod cluster assembly~~ RCCA of highest reactivity worth which is assumed to be fully withdrawn. With any RCCA not capable of being fully inserted, the reactivity worth of the RCCA must be accounted for in the determination of SDM; and 01-20-M

b) In MODES 1 and 2, the fuel and moderator temperatures are changed to the hotzero power temperatures. 01-20-M

~~SITE BOUNDARY~~

~~1.32 SITE BOUNDARY shall be that line as shown in Figure 5.1-3.~~ 01-24-A

SLAVE RELAY TEST

1.33 A SLAVE RELAY TEST shall ~~be the energization of~~ consist of energizing each required slave relay and ~~verification of~~ verifying the OPERABILITY of each required slave relay. The SLAVE RELAY TEST shall include ~~, as a minimum,~~ a continuity check ~~, as a minimum,~~ of associated required testable actuation devices. The SLAVE RELAY TEST may be performed by means of any series of sequential, overlapping, or total steps. 01-01-A Q1.1-1

1.34 Deleted

1.0 USE AND APPLICATION

1.~~0~~1 DEFINITIONS

THERMAL POWER

1.37 THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

of all devices in the channel required for trip actuating device OPERABILITY.

TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT) the 01-1-1

1.38 A ~~TRIP ACTUATING DEVICE OPERATIONAL TEST~~ TADOT shall consist of operating the ~~T~~ trip ~~A~~ actuating ~~D~~ device and verifying OPERABILITY, ~~including all components in the channel, such as alarms, interlocks, displays and/or trip functions required to perform the specified safety functions~~. The TADOT may be performed by means of any series of sequential, overlapping, or total channel steps ~~so that the entire channel is tested~~. The ~~TRIP ACTUATING DEVICE OPERATIONAL TEST~~ TADOT shall include adjustment, as necessary, of the ~~T~~ trip ~~A~~ actuating ~~D~~ device ~~such~~ so-that it actuates at the required setpoint within the ~~required~~ accuracy. 01-01-A 01-32-A 01-30-A

necessary

Q1.1-1
Q1.1-2

~~UNIDENTIFIED LEAKAGE~~

~~1.39 UNIDENTIFIED LEAKAGE shall be all leakage which is not IDENTIFIED LEAKAGE or CONTROLLED LEAKAGE.~~ 01-11-A

~~UNRESTRICTED AREA~~

~~1.40 An UNRESTRICTED AREA shall be any area at or beyond the SITE BOUNDARY access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials, or any area within the SITE BOUNDARY used for residential quarters or for industrial, commercial, institutional, and/or recreational purposes.~~ 01-24-A

Q1.1-7

~~VENTILATION EXHAUST TREATMENT SYSTEM~~ 01-31-A

~~1.41 A VENTILATION EXHAUST TREATMENT SYSTEM shall be any system designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers and/or HEPA filters for the purpose of removing iodines or particulates from the gaseous exhaust stream prior to the release to the environment. Such a system is not considered to have any effect on noble gas effluents. Engineered Safety Features Atmospheric Cleanup Systems are not normally considered to be VENTILATION EXHAUST TREATMENT SYSTEM components.~~ 01-15-~~A~~

DESCRIPTION OF CHANGES TO TS SECTION 1.0

CHANGE NUMBER	NSHC	DESCRIPTION
01-26	A	New Sections 1.2, 1.3, and 1.4 would be incorporated into the ITS to be consistent with NUREG-1431. Section I.2 provides specific examples of the use of the logical connectors AND and OR and the numbering sequence associated with their use in the ITS. Section 1.3 deals with the proper use and interpretation of Completion Times, and specific examples are given that will aid the user in understanding Completion Times. Section 1.4 deals with the proper use and interpretation of surveillance Frequencies. Specific examples are given that will aid the user in understanding surveillance Frequencies as they will appear in the ITS. The proposed changes are administrative in nature and by themselves are not technical changes, incorporating Travelers ~~WOG-74, Rev. 1~~ TSTF-270 and ~~WOG-90, Rev. 1~~ TSTF-267. Q1.4-1
01-27	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-28	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-29	LS3	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-30	A	Consistent with ~~TSTF-39, Rev. 1~~ TSTF-205, the definitions of COT, MASTER RELAY TEST, SLAVE RELAY TEST, [CHANNEL FUNCTIONAL TEST (CFT)], and TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT) are expanded to include the details of acceptable performance methodology. Performance of these tests in a series of sequential, overlapping, or total ~~channel~~ steps provides the necessary assurance of appropriate operation of the ~~entire~~ channel, relay, or device, respectively. This change also makes the COT, [CFT], and TADOT definitions consistent with the CTS and the NUREG-1431 definition of CHANNEL CALIBRATION which already contains similar wording. Q1.1-1
01-31	A	Definitions of specific plant systems which are defined by the plant design are deleted consistent with NUREG-1431. The definitions contained in ITS 1.0 are intended for definitions that are necessary for the understanding of the specifications and can be generically defined for most plants. Definitions of systems that are not used in the specifications, or are specific to a particular plant (or only a few plants) are no longer defined in this section. Where necessary, such items are defined in the Bases for the applicable specifications.
1-32	A	Q1.1-2 The definitions of CHANNEL CALIBRATION, COT, [CFT], and TADOT are reworded to be consistent with Industry Traveler TSTF-~~64~~ 205 to clarify the phrase "entire channel;" thus reducing the potential for inconsistent interpretation of the phrase as experienced by a number of plants. A similar clarification is provided for Actuation Logic Test.
1-33	A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative" in accordance with NUREG-1431. The words as used in the definition were redundant and deleting the words does not alter the meaning of the definition.
1-35	A	see Insert for Q3.6.3-1 — Q3.6.3-1
1-36	A	see Insert for Q3.6.2-1 — Q3.6.2-1 — 3.6 RAI's
1-37	A	see Insert for Q3.6.1-3 — Q3.6.1-3
1-34	LS2	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

1-38 through 1-41 see section 3.6 RAI's Q1.1-9

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-27 M	The definition of RAFDO is deleted.	No	No	No	Yes, definition only in Callaway CTS.
01-28 LG	The definition of CONTROLLED LEAKAGE is deleted. The RCP seal water return flow limit is moved to a licensee controlled document.	No, see change number 01-05-A.	No, see Change Number 01-05-A.	Yes, moved to USAR Section 16.	Yes, moved to FSAR Section 16.4.
01-29 LS3	Allows measuring QPTR when one or more excore detector channels are inoperable with moveable in-core detectors.	No	Yes, portion of the definition being changed is only in the CPSES CTS.	No	No
01-30 A	The definitions of COT, MASTER RELAY TEST, SLAVE RELAY TEST, [CFT], and TADOT are expanded to include the details of acceptable performance methodology. Performance of these tests in a series of sequential, overlapping, or total ~~channel~~ steps provides the necessary assurance of appropriate operation of the ~~entire~~ channel, relay, or device, respectively.	Yes	Yes	Yes	Yes Q1.1-1
01-31 A	Definitions of specific plant systems which are defined by the plant design are deleted.	Yes	Yes	~~No, not in CTS~~ Yes	~~No, not in CTS~~ Yes Q1.1-7
01-32 A	The definition of CHANNEL CALIBRATION, COT, [CFT] and TADOT are reworded to be consistent with Industry Traveler ~~TSTF-64~~ TSTF-205. The revised wording clarifies what is meant by "entire channel." The definition of Actuation Logic Test is similarly clarified.	Yes	Yes	Yes	Yes Q1.1-2
01-33 A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative."	Yes	Yes	~~Yes~~ No. Amendment 109 incorporated STS wording.	Yes Q1.1-3
01-34 LS2	Insert	No	No	No	Yes Q1.1-9
01-35 A	(see insert for Q 3.6.3-1)	Q3.6.3-1		In 3.6 RAI's	
01-36 A	(see insert for Q 3.6.2-1)	Q3.6.2-1			
01-37 A	(see insert for Q 3.6.1-3)	Q3.6.1-3			
01-38 A	Insert from 3.6 RAI's	No-see CN 1-37-A	Yes	No-see CN 1-37-A	No-see CN 1-37-A Q3.6.2-2

Industry Travelers Applicable to Section 1.0

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	~~NA~~ 1.1-12	~~Not~~ NRC approved. ~~as of traveler cut-off date.~~ TR1.0-006
~~TSTF-39, Rev. 1~~ TSTF-205	Incorporated	1.1-9, 1.1-1	Q1.1-1
~~TSTF-64~~	~~Incorporated~~	~~1.1-1~~	Q1.1-2
~~TSTF-88~~	~~Incorporated~~	~~1.1-8~~	Q1.1-9
TSTF-111, Rev. 1	Incorporated	1.1-5	
~~WOG-67, Rev. 1~~ TSTF-233	Incorporated	1.1-6	NRC Approved. Q1.1-5
~~WOG-74, Rev. 1~~ TSTF-270	Incorporated	1.1-3	Q1.4-1
~~WOG-90, Rev. 1~~ TSTF 267	Incorporated	1.1-11	Q1.4-1
TSTF-52	Incorporated	1.1-13	Incorporated Draft Rev. 1 per Q3.6.1-6 Q3.6.1-6

1.1 Definitions (continued)

CHANNEL CHECK — A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation. This determination shall include, where possible, comparison of the channel indication and status to other indications or status derived from independent instrument channels measuring the same parameter.

CHANNEL FUNCTIONAL TEST (CFT) — A CFT shall be:

a. Analog channels - the injection of a simulated or actual signal into the channel as close to the sensor as practical to verify OPERABILITY including required alarm and trip functions; or 1.1-7

b. Bistable channels - the injection of a simulated or actual signal into the sensor to verify OPERABILITY including required alarm and trip functions; or 1.1-7

c. Digital channels - the injection of a simulated or actual signal into the channel as close to the sensor input to the process racks as practical to verify OPERABILITY including required alarm and trip functions. 1.1-7

The Channel Functional Test may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is tested. 1.1-9

CHANNEL OPERATIONAL TEST (COT) — A COT shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify ~~the~~ OPERABILITY ~~of required including all components in the channel such as alarms, interlocks, displays, and trip functions required to perform the specified safety function(s)~~ of all devices in the channel required for channel OPERABILITY. The COT may be performed by means of any series of sequential, overlapping or total channel steps. ~~so that the entire channel is tested.~~ The COT shall include adjustments, as necessary, of the required alarm, interlock, and trip setpoints ~~so~~ required for channel OPERABILITY such that the setpoints are within the ~~required~~ necessary range and accuracy. Q1.1-1 Q1.1-2 1.1-1 1.1-9

CORE ALTERATION — CORE ALTERATION shall be the movement of any fuel, sources, or reactivity control components, within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.

(Continued)

1.1 Definitions (continued)

LEAKAGE

LEAKAGE shall be:

a. Identified LEAKAGE

1. LEAKAGE, such as that from pump seals or valve packing (except reactor coolant pump (RCP) seal water injection or leakoff), that is captured and conducted to collection systems or a sump or collecting tank;

2. LEAKAGE into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be pressure boundary LEAKAGE; or

3. Reactor Coolant System (RCS) LEAKAGE through a steam generator (SG) to the Secondary System.

b. Unidentified LEAKAGE

All LEAKAGE (except RCP seal water injection or leakoff) that is not identified LEAKAGE.

c. Pressure Boundary LEAKAGE

Q1.1-1

LEAKAGE (except SG LEAKAGE) through a nonisolable fault in an RCS component body, pipe wall, or vessel wall.

MASTER RELAY TEST

A MASTER RELAY TEST shall consist of energizing each required ~~master~~ relay and verifying the OPERABILITY of each relay. The MASTER RELAY TEST shall include a continuity check of each associated required master required slave relay. 1.1-9

MODE

A MODE shall correspond to any one inclusive combination of core reactivity condition, power level, average reactor coolant temperature, and reactor vessel head closure bolt tensioning specified in Table 1.1-1 with fuel in the reactor vessel.

OPERABLE-OPERABILITY

A system, subsystem, train, component, or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required

(Continued)

The MASTER RELAY TEST may be performed by means of any series of sequential, overlapping, or total steps.

1.1 Definitions (continued)

SHUTDOWN MARGIN (SDM)

SDM shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming:

a. All rod cluster control assemblies (RCCAs) are fully inserted except for the single RCCA of highest reactivity worth, which is assumed to be fully withdrawn. With any RCCA not capable of being fully inserted, the reactivity worth of the RCCA must be accounted for in the determination of SDM; and

b. In MODES 1 and 2, the fuel and moderator temperatures are changed to the ~~[nominal~~ hot zero power ~~design level~~ temperatures. ~~]~~ B-PS

SLAVE RELAY TEST

A SLAVE RELAY TEST shall consist of energizing each slave relay and verifying the OPERABILITY of each slave relay. The SLAVE RELAY TEST shall include ~~as a minimum~~ a continuity check of associated testable actuation devices. required 1.1-9 Q1.1-1

The SLAVE RELAY TEST may be performed by means of any series of sequential, overlapping, or total steps.

STAGGERED TEST BASIS

A STAGGERED TEST BASIS shall consist of the testing of one of the systems, subsystems, channels, or other designated components during the interval specified by the Surveillance Frequency, so that all systems, subsystems, channels, or other designated components are tested during *n* Surveillance Frequency intervals, where *n* is the total number of systems, subsystems, channels, or other designated components in the associated function.

THERMAL POWER

THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT)

the

of all devices in the channel required for trip actuating device OPERABILITY.

A TADOT shall consist of operating the trip actuating device and verifying ~~the~~ OPERABILITY ~~of required including all components, such as alarms, interlocks, displays, and trip functions required to perform the specified safety function(s).~~ The TADOT may be performed by means of any series of sequential, overlapping or total channel steps. ~~so that the entire channel is tested.~~ 1.1-1 1.1-9 The TADOT shall include adjustment, as necessary, of the trip actuating device so that it actuates at the required setpoint within the ~~required~~ accuracy. Q1.1-1 Q1.1-2

necessary

(Continued)

CHANGE

NUMBER	JUSTIFICATION
1.1-7	The definition for CFT in the current DCPP TS will be retained in the ITS. CFT is in active use in numerous procedures in the plant. The CFT is used in applications for which the COT is not fully suitable. Although CFT and COT definitions appear similar, there is one important difference. Strict adherence to COT requirements includes quantitative adjustments as appropriate to bring setpoints into the desired range. This requirement for quantitative adjustment cannot be satisfied in a reasonable manner on some components/sensors/channels due to their design. However, CFT is a qualitative test to determine functionality. A loss of function indicated by the CFT results in a notification to restore the functional performance, following existing procedures. The CFT definition is in the DCPP CTS. The words "or actual," "required," and the "CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is tested" are added to the definition of CFT consistent with NUREG-1431 definition for COT.
1.1-8	Not applicable to DCPP See Conversion Comparison Table (Enclosure 6B). Q1.1-9 ~~The reactor vessel head closure bolt requirements for MODES 4, 5, and 6 are clarified. Footnote b is revised for MODES 4 and 5 to refer to "the required reactor vessel head closure bolts fully tensioned" and Note c for MODE 6 is revised to read "the required reactor head closure bolts less than fully tensioned." The transition point between MODES 5 and 6 would also be clarified as occurring when the required reactor vessel head closure bolts are less than fully tensioned. The required number of closure bolts, which may be less than the total number, is established by analysis that demonstrates adequate O-ring compression to prevent leakage and ensures the ASME Section III stress limits for affected components are not exceeded. This change is consistent with Industry Traveler TSTF-88.~~
1.1-9	The definitions of COT, , MASTER RELAY TEST, SLAVE RELAY TEST, [CFT], and TADOT are expanded to include the details of acceptable performance methodology. Performance of these tests in a series of sequential, overlapping, or total channel steps provides the necessary assurance of appropriate operation of the ~~entire~~ e channel , relay, or device, respectively. This change also makes the COT, MASTER RELAY TEST, SLAVE RELAY TEST and TADOT definitions consistent with the NUREG-1431 definition of CHANNEL CALIBRATION which already contains similar wording. This change is consistent with Industry Traveler TSTF-~~39, Rev. 1~~ 205. Q1.1-1
1.1-10	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
1.1-11	This change adds a new example (1.4-5) to ITS Section 1.4 to clarify surveillance Frequencies that are contingent on both a "specified frequency" and plant conditions. The ITS contains many surveillance Frequencies that are contingent on both a "specified frequency" and plant conditions. For example, "Within 7 days prior to the initiation of PHYSICS TESTS," and "Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days." These Frequencies do not fall clearly under any of the existing Section 1.4 examples. The proposed example is needed to make clear that: (1) the SR 3.0.2 extension of 1.25 times the specified Frequency applies to the specified Frequency, and (2) that the interval allowed to perform a missed surveillance by SR 3.0.3 applies. SR 3.0.2 is clear that the 1.25 extension may be applied to "the interval specified in the Frequency," so the proposed change does not change the intent of the specifications. SR 3.0.2 applies if a surveillance is not performed within the "specified Frequency."

DIFFERENCE FROM NUREG-1431		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
1.1-9	The definition of COT, MASTER RELAY TEST, SLAVE RELAY TEST [CFT], and TADOT are expanded to include the details of acceptable performance methodology. Performance of this test in a series of sequential, overlapping, or total channel steps provides the necessary assurance of appropriate operation of the entire channel, relay, or device, respectively.	Yes Q1.1-1	Yes	Yes	Yes
1.1-10	This change is based on the CTS definition of CONTROLLED LEAKAGE. This change is a clarification only and does not affect the way RCS water inventory balances are performed.	No, not part of CTS.	No, not part of CTS.	No, maintaining ISTS wording.	Yes
1.1-11	This change adds a new example (1.4-5) to ITS Section 1.4 to clarify surveillance frequencies that are contingent on both specified frequency and plant conditions.	Yes	Yes	Yes	Yes
1.1-12	The definition of CHANNEL CALIBRATION is revised per TSTF-19 to move details of RTD and thermocouple calibration to the ITS 3.3 Bases associated with calibration of those components	Yes	Yes	Yes	Yes TR1.0-006
1.1-13	Insert (from 3.6 RAI's)	Yes	Yes	Yes	Yes Q3.6.1-6

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1.1-2 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

CTS 1.3, Analog Channel Operations Test
CTS 1.5, Channel Calibration
CTS 1.35, Trip Actuating Device Operational Test [Wolf Creek]
CTS 1.36, Trip Actuating Device Operational Test [Callaway]
CTS 1.37, Trip Actuating Device Operational Test [Comanche Peak]
CTS 1.38, Trip Actuating Device Operational Test [Diablo Canyon]
DOC 1-32-A
ITS 1.1, Channel Calibration
ITS 1.1, Channel Operational Test (COT)
ITS 1.1, Trip Actuating Device Operational Test (TADOT)
JFD 1.1-1

These are changes to both the CTS and the STS and are considered generic changes. Therefore, they are beyond the scope of the conversion review. The DOC states that these changes are consistent with TSTF-64.

Comment: If NRC has not approved TSTF-64 by the time the draft safety evaluation is prepared, then these changes should be withdrawn from the conversion submittal at that time. These changes will not be reviewed on a plant-specific basis.

FLOG RESPONSE: TSTF-64 has been withdrawn by the TSTF. However, changes addressed in TSTF-64 have been subsumed by TSTF-205. Rev. 1 of TSTF-205 is currently undergoing final review by the TSTF members. After final wording changes for the COT definition as well as Section 3.3 Bases changes to establish the requirements for relay contact surveillance testing (issue originally raised at Peach Bottom) are agreed upon, Rev. 1 will be submitted for NRC review. The attached pages represent the definition changes to be included in Rev. 1. The Section 3.3 Bases changes will be addressed under that Section's review.

ATTACHED PAGES:

Encl 2	1-1, 1-1a, and 1-7
Encl 3A	5
Encl 3B	4
Encl 5A	Traveler Status Sheet
Encl 5A	1.1-1, 1.1-2, and 1.1-6
Encl 6A	1
Encl 6B	1

1.0 USE AND APPLICATION

1.~~0~~1 DEFINITIONS

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications and Bases. 01-01-A

ACTIONS

1.1 ACTIONS shall be that part of a Specification ~~which~~ that prescribes ~~remedial measures~~ required actions to be taken under designated conditions within specified completion times. 01-01-A

ACTUATION LOGIC TEST

1.2 An ACTUATION LOGIC TEST shall be the application of various simulated or actual input combinations in conjunction with each possible interlock logic state and the verification of the required logic output. The ACTUATION LOGIC TEST as a minimum shall include a continuity check ~~as a minimum~~ of output devices. required for OPERABILITY of a logic circuit 01-01-A

Q1.1-2

CHANNEL OPERATIONAL TEST (COT)

1.3 A ~~CHANNEL OPERATIONAL TEST~~ COT shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify ~~the~~ OPERABILITY ~~of the required alarm, interlock~~ ~~including all components in the channel, such as alarms, interlocks, displays, and/or trip functions required to perform the specified safety function(s).~~ The COT may be performed by means of any series of sequential, overlapping, or total channel steps ~~so that the entire channel is tested~~. The ~~CHANNEL OPERATIONAL TEST~~ COT shall include adjustments, as necessary, of the required alarm, interlock and/~~or~~ trip setpoints ~~such~~ ~~so~~ that the setpoints are within the ~~required~~ necessary range and accuracy. required for channel OPERABILITY such of all devices in the channel required for channel OPERABILITY. 01-01-A 01-32-A 01-30-A Q1.1-1 Q1.1-2

AXIAL FLUX DIFFERENCE (AFD)

1.4 ~~AXIAL FLUX DIFFERENCE~~ AFD shall be the difference in normalized flux signals between the top and bottom halves of a~~n~~ ~~two-section~~ excore neutron detector. 01-01-A

CHANNEL CALIBRATION

1.5 A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel ~~such~~ ~~so~~ such that it responds within the ~~required~~ necessary range and accuracy to known ~~values of~~ ~~input~~ values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass ~~the entire channel including the required sensor, s and alarm, interlock and/or trip functions.~~ ~~these components such as sensors, alarms, displays, and trip functions required to perform the specified safety function(s)~~ all devices in the channel required for channel OPERABILITY, and may be performed by means of any series of sequential, overlapping calibrations or total channel steps ~~such that the entire channel is~~. 01-32-A Q1.1-2

1.~~01~~1 DEFINITIONS

Q1.1-2

~~calibrated.~~ Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. ~~Whenever a sensing element is replaced, the next required CHANNEL CALIBRATION shall include an in-place cross calibration that compares the other sensing elements with the recently installed sensing element.~~ 01-03-M

TR1.0-006

CHANNEL CHECK

1.6 A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation ~~by observation~~. This determination shall include, where possible, comparison of the channel indication and~~/or~~ status ~~with~~ to other indications ~~and/~~or status derived from independent instrument channels measuring the same parameter. 01-01-A

1.0 USE AND APPLICATION

1.~~01~~ DEFINITIONS

THERMAL POWER

1.37 THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT)

of all devices in the channel required for trip actuating device OPERABILITY.

the

Q1.1-1

1.38 A ~~TRIP ACTUATING DEVICE OPERATIONAL TEST~~ TADOT shall consist of operating the ~~T~~ trip A actuating ~~D~~ device and verifying OPERABILITY, ~~including all components in the channel, such as alarms, interlocks,~~ ~~displays,~~ ~~and/or trip functions required to perform the specified safety function(s)~~. The TADOT may be performed by means of any series of sequential, overlapping, or total channel steps ~~so that the entire channel is tested~~. The ~~TRIP ACTUATING DEVICE OPERATIONAL TEST~~ TADOT shall include adjustment, as necessary, of the ~~T~~ trip A actuating ~~D~~ device ~~such~~ so-that it actuates at the required setpoint within the ~~required~~ accuracy. 01-01-A 01-32-A 01-30-A

Q1.1-1
Q1.1-2

necessary

~~UNIDENTIFIED LEAKAGE~~

~~1.39 UNIDENTIFIED LEAKAGE shall be all leakage which is not IDENTIFIED LEAKAGE or CONTROLLED LEAKAGE.~~ 01-11-A

~~UNRESTRICTED AREA~~

~~1.40 An UNRESTRICTED AREA shall be any area at or beyond the SITE BOUNDARY access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials, or any area within the SITE BOUNDARY used for residential quarters or for industrial, commercial, institutional, and/or recreational purposes.~~ 01-24-A

Q1.1-7
01-31-A
~~01-15-A~~

~~VENTILATION EXHAUST TREATMENT SYSTEM~~

~~1.41 A VENTILATION EXHAUST TREATMENT SYSTEM shall be any system designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers and/or HEPA filters for the purpose of removing iodines or particulates from the gaseous exhaust stream prior to the release to the environment. Such a system is not considered to have any effect on noble gas effluents. Engineered Safety Features Atmospheric Cleanup Systems are not normally considered to be VENTILATION EXHAUST TREATMENT SYSTEM components.~~

DESCRIPTION OF CHANGES TO TS SECTION 1.0

CHANGE NUMBER	NSHC	DESCRIPTION
01-26	A	New Sections 1.2, 1.3, and 1.4 would be incorporated into the ITS to be consistent with NUREG-1431. Section l.2 provides specific examples of the use of the logical connectors AND and OR and the numbering sequence associated with their use in the ITS. Section 1.3 deals with the proper use and interpretation of Completion Times, and specific examples are given that will aid the user in understanding Completion Times. Section 1.4 deals with the proper use and interpretation of surveillance Frequencies. Specific examples are given that will aid the user in understanding surveillance Frequencies as they will appear in the ITS. The proposed changes are administrative in nature and by themselves are not technical changes, incorporating Travelers ~~WOG-74, Rev. 1~~ TSTF-270 and ~~WOG-90, Rev. 1~~ TSTF-267. Q1.4-1
01-27	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-28	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-29	LS3	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-30	A	Consistent with ~~TSTF-39, Rev. 1~~ TSTF-205, the definitions of COT, MASTER RELAY TEST, SLAVE RELAY TEST, [CHANNEL FUNCTIONAL TEST (CFT)], and TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT) are expanded to include the details of acceptable performance methodology. Performance of these tests in a series of sequential, overlapping, or total ~~channel~~ steps provides the necessary assurance of appropriate operation of the ~~entire~~ channel, relay, or device, respectively. This change also makes the COT, [CFT], and TADOT definitions consistent with the CTS and the NUREG-1431 definition of CHANNEL CALIBRATION which already contains similar wording. Q1.1-1
01-31	A	Definitions of specific plant systems which are defined by the plant design are deleted consistent with NUREG-1431. The definitions contained in ITS 1.0 are intended for definitions that are necessary for the understanding of the specifications and can be generically defined for most plants. Definitions of systems that are not used in the specifications, or are specific to a particular plant (or only a few plants) are no longer defined in this section. Where necessary, such items are defined in the Bases for the applicable specifications.
1-32	A	The definitions of CHANNEL CALIBRATION, COT, [CFT], and TADOT are reworded to be consistent with Industry Traveler TSTF-~~64~~ 205 to clarify the phrase "entire channel;" thus reducing the potential for inconsistent interpretation of the phrase as experienced by a number of plants. A similar clarification is provided for Actuation Logic Test. Q1.1-2
1-33	A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative" in accordance with NUREG-1431. The words as used in the definition were redundant and deleting the words does not alter the meaning of the definition.
1-35	A	see Insert for Q3.6.3-1
1-36	A	see Insert for Q3.6.2-1
1-37	A	see Insert for Q3.6.1-3
1-34	LS2	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

Q3.6.3-1
Q3.6.2-1
Q3.6.1-3
3.6 RAI's

1-38 through 1-41 see section 3.6 RAI's

Q1.1-9

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-27 M	The definition of RAFDO is deleted.	No	No	No	Yes, definition only in Callaway CTS.
01-28 LG	The definition of CONTROLLED LEAKAGE is deleted. The RCP seal water return flow limit is moved to a licensee controlled document.	No, see change number 01-05-A.	No, see Change Number 01-05-A.	Yes, moved to USAR Section 16.	Yes, moved to FSAR Section 16.4.
01-29 LS3	Allows measuring QPTR when one or more excore detector channels are inoperable with moveable in-core detectors.	No	Yes, portion of the definition being changed is only in the CPSES CTS.	No	No
01-30 A	The definitions of COT, MASTER RELAY TEST, SLAVE RELAY TEST, [CFT], and TADOT are expanded to include the details of acceptable performance methodology. Performance of these tests in a series of sequential, overlapping, or total ~~channel~~ steps provides the necessary assurance of appropriate operation of the ~~entire~~ channel, relay, or device, respectively.	Yes	Yes	Yes	Yes Q1.1-1
01-31 A	Definitions of specific plant systems which are defined by the plant design are deleted.	Yes	Yes	~~No, not in CTS~~ Yes	~~No, not in CTS~~ Yes Q1.1-7
01-32 A	The definition of CHANNEL CALIBRATION, COT, [CFT] and TADOT are reworded to be consistent with Industry Traveler ~~TSTF-64~~ TSTF-205. The revised wording clarifies what is meant by "entire channel." The definition of Actuation Logic Test is similarly clarified.	Yes	Yes	Yes	Yes Q1.1-2
01-33 A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative."	Yes	Yes	~~Yes~~ No. Amendment 109 incorporated STS wording.	Yes Q1.1-3
01-34 LS2	Insert	No	No	No	Yes Q1.1-9
01-35 A	(see insert for Q 3.6.3-1)		Q3.6.3-1	In 3.6 RAI's	
01-36 A	(see insert for Q 3.6.2-1)		Q3.6.2-1		
01-37 A	(see insert for Q 3.6.1-3)		Q3.6.1-3		

DCPP Conversion Comparison Table - Current TS

01-38 A	Insert from 3.6 RAI's	No-see CN 1-37-A	Yes	No-see CN 1-37-A	No-see CN 1-37-A Q3.6.2-2

Industry Travelers Applicable to Section 1.0

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	~~NA~~ 1.1-12	~~Not~~ NRC approved. ~~as of traveler cut-off date.~~ TR1.0-006
~~TSTF-39, Rev. 1~~ TSTF-205	Incorporated	1.1-9, 1.1-1	Q1.1-1
~~TSTF-64~~	~~Incorporated~~	~~1.1-1~~	Q1.1-2
~~TSTF-88~~	~~Incorporated~~	~~1.1-8~~	Q1.1-9
TSTF-111, Rev. 1	Incorporated	1.1-5	
~~WOG-67, Rev. 1~~ TSTF-233	Incorporated	1.1-6	NRC Approved. Q1.1-5
~~WOG-74, Rev. 1~~ TSTF-270	Incorporated	1.1-3	Q1.4-1
~~WOG-90, Rev. 1~~ TSTF 267	Incorporated	1.1-11	Q1.4-1
TSTF-52	Incorporated	1.1-13	Incorporated Draft Rev.1 per Q3.6.1-6

Q3.6.1-6

1.0 USE AND APPLICATION

1.1 Definitions

NOTE

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications and Bases.

Term	Definition
ACTIONS	ACTIONS shall be that part of a Specification that prescribes Required Actions to be taken under designated Conditions within specified Completion Times.
ACTUATION LOGIC TEST	An ACTUATION LOGIC TEST shall be the application of various simulated or actual input combinations in conjunction with each possible interlock logic state and the verification of the required logic output. The ACTUATION LOGIC TEST, as a minimum, shall include a continuity check of output devices.
AXIAL FLUX DIFFERENCE (AFD)	AFD shall be the difference in normalized flux signals between the ~~[~~top and bottom halves of ~~a two section~~ an excore neutron detector.~~]~~ B-PS
CHANNEL CALIBRATION	A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel ~~so~~ output such that it responds within the ~~required~~ necessary range and accuracy to known ~~input~~ values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass ~~those components~~ ~~the entire channel, including the required~~ ~~such as~~ ~~sensors, alarms, interlock, displays,~~ and trip functions ~~required to perform the specified safety function(s)~~ all devices in the channel required for channel OPERABILITY. Q1.1-2 1.1-1 Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. ~~Whenever a sensing element is replaced, the next required CHANNEL CALIBRATION shall include an in-place cross calibration that compares the other sensing elements with the recently installed sensing element.~~ TR 3.3 1.1-12 The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping ~~calibrations~~ or total channel steps. ~~so that the entire channel is calibrated.~~ 1.1-1 Q1.1-2

(Continued)

1.1 Definitions (continued)

CHANNEL CHECK

A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation. This determination shall include, where possible, comparison of the channel indication and status to other indications or status derived from independent instrument channels measuring the same parameter.

CHANNEL FUNCTIONAL TEST (CFT)

A CFT shall be:

a. Analog channels - the injection of a simulated or actual signal into the channel as close to the sensor as practical to verify OPERABILITY including required alarm and trip functions, or 1.1-7

b. Bistable channels - the injection of a simulated or actual signal into the sensor to verify OPERABILITY including required alarm and trip functions, or 1.1-7

c. Digital channels - the injection of a simulated or actual signal into the channel as close to the sensor input to the process racks as practical to verify OPERABILITY including required alarm and trip functions. 1.1-7

The Channel Functional Test may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is tested. 1.1-9

CHANNEL OPERATIONAL

Q1.1-1
Q1.1-2

A COT shall be the injection of a simulated or actual signal TEST (COT) into the channel as close to the sensor as practicable to verify ~~the~~ OPERABILITY, ~~of required including all components in the channel such as alarms, interlocks, displays, and trip functions required to perform the specified safety function(s)~~. The COT may be performed by means of any series of sequential, overlapping or total channel steps, ~~so that the entire channel is tested~~. The COT shall include adjustments, as necessary, of the required alarm, interlock, and trip setpoints, ~~so~~ that the setpoints are within the ~~required~~ range and accuracy. 1.1-1 1.1-9

of all devices in the channel required for channel OPERABILITY.

necessary

required for channel OPERABILITY such

CORE ALTERATION

CORE ALTERATION shall be the movement of any fuel, sources, or reactivity control components, within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.

(Continued)

1.1 Definitions (continued)

SHUTDOWN MARGIN (SDM)

SDM shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming:

a. All rod cluster control assemblies (RCCAs) are fully inserted except for the single RCCA of highest reactivity worth, which is assumed to be fully withdrawn. With any RCCA not capable of being fully inserted, the reactivity worth of the RCCA must be accounted for in the determination of SDM; and

b. In MODES 1 and 2, the fuel and moderator temperatures are changed to the ~~[nominal~~ hot zero power ~~design level~~ temperatures ~~]~~ B-PS

SLAVE RELAY TEST

A SLAVE RELAY TEST shall consist of energizing each slave relay and verifying the OPERABILITY of each slave relay. The SLAVE RELAY TEST shall include ~~, as a minimum,~~ a continuity check of associated testable actuation devices. required 1.1-9 Q1.1-1

The SLAVE RELAY TEST may be performed by means of any series of sequential, overlapping, or total steps.

STAGGERED TEST BASIS

A STAGGERED TEST BASIS shall consist of the testing of one of the systems, subsystems, channels, or other designated components during the interval specified by the Surveillance Frequency, so that all systems, subsystems, channels, or other designated components are tested during *n* Surveillance Frequency intervals, where *n* is the total number of systems, subsystems, channels, or other designated components in the associated function.

THERMAL POWER

THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT)

A TADOT shall consist of operating the trip actuating device and verifying ~~the~~ the OPERABILITY of all devices in the channel required for trip actuating device OPERABILITY. ~~of required, including all components, such as alarms, interlocks, displays, and trip functions required to perform the specified safety function(s).~~ The TADOT may be performed by means of any series of sequential, overlapping or total channel steps. ~~so that the entire channel is tested.~~ The TADOT shall include adjustment, as necessary, of the trip actuating device so that it actuates at the required setpoint within the ~~required~~ necessary accuracy. 1.1-1 1.1-9 Q1.1-1 Q1.1-2

(Continued)

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1431

NUREG-1431 Section 1.0

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.

, Channel Operational Test, and Trip Actuating Device Operational Test use language to describe the scope of testing similar to

Q1.1-2

CHANGE NUMBER	JUSTIFICATION
1.1-1	The NUREG-1431 definition of CHANNEL CALIBRATION ~~states, "The CHANNEL CALIBRATION shall encompass~~ "the entire channel, including the required sensor, alarm, display, and trip functions." This change clarifies what ~~encompasses the entire channel by rewording the definition to state, "The CHANNEL CALIBRATION shall encompass those components, such as sensors, alarms, displays, and trip functions required to perform the specified safety function(s)." The COT and TADOT definitions are also similarly revised.~~ This change is consistent with TSTF-64. 205
	components are included by specifying "all devices in the channel required for channel OPERABILITY." A similar clarification is provided for the Actuation Logic Test.
1.1-2	Not Used.
1.1-3	Adds new example 1.4-4 to ITS 1.4 to clarify meaning of SR notes of the type, "Only required to be performed in MODE...." This change is consistent with ~~WOG-74, Rev. 1~~ TSTF-270. Q1.4-1
1.1-4	Not Used.
1.1-5	The definitions for ESF RESPONSE TIME and RTS RESPONSE TIME would be revised to substitute the word "verified" in lieu of "measured," consistent with the terminology of NUREG-1431, SR 3.3.1.16, and SR 3.3.2.10. This change would ensure consistency between the definitions for time and the requirements to periodically verify response time is within limits. This change is consistent with Industry Traveler TSTF-111, Rev. 1.
1.1-6	The definition of the PTLR would be revised to include the maximum allowable PORV lift settings and arming temperature associated with the [low temperature Over pressurization protection (LTOP)] system, and to be consistent with the CORE OPERATING LIMITS REPORT (COLR) definition. ITS 3.4.12 states that the PORV lift settings are specified in the PTLR. The current definition for PTLR does not identify these lift settings as being contained in the PTLR. The [LTOP] arming temperature was added to the PTLR since changes in the heatup/cooldown figures could change the arming temperature. This change corrects the PTLR definition to be consistent with all of the requirements contained in the PTLR. Referenced methodologies for the PTLR would contain the methodology used to develop the heatup and cooldown figures, as well as the methodology for developing the [LTOP] setpoints. This change is consistent with Industry Traveler ~~WOG-67, Rev. 1~~ TSTF-233. In addition, the PTLR definition includes the PORV lift settings consistent with the traveler's change to ITS 5.6.6. Q1.1-5

The word "required" is ambiguous and subject to misinterpretation as to whether the list is inclusive or representative.

DIFFERENCE FROM NUREG-1431		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
1.1-1	This change would clarify ~~what encompasses the entire channel by rewording~~ the definitions ~~to state, "The~~ of CHANNEL CALIBRATION, COT, and TADOT by replacing the existing ambiguous wording with "all devices in the channel required for channel OPERABILITY." ~~shall encompass those components, such as sensors, alarms, displays, and trip functions, required to perform the specified safety function(s)."~~ The ~~COT and TADOT~~ Actuation Logic Test definition~~s~~ ~~are~~ is similarly revised.	Yes Q1.1-2	Yes	Yes	Yes
1.1-2	Not Used.	N/A	N/A	N/A	N/A
1.1-3	~~Not Used.~~ Adds new example to ITS 1.4 to clarify the meaning of SR Notes of the type "only required to be performed in Mode..."	Yes Q1.4-1	Yes	Yes	Yes
1.1-4	Not Used.	N/A	N/A	N/A	N/A
1.1-5	The definitions for ESF RESPONSE TIME and RTS RESPONSE TIME would be revised to substitute the word "verified" in lieu of "measured" consistent with the requirements of NUREG-1431, SR 3.3.1.16 and SR 3.3.2.10.	Yes	Yes	Yes	Yes
1.1-6	The definition of the PTLR would be revised to include the maximum allowable PORV lift settings and the arming temperature associated with the LTOP system, and to be consistent with the COLR definition.	Yes	Yes	Yes	Yes
1.1-7	The definition of CFT in the CTS will be retained in the ITS. NUREG-1431 does not include the definition of this test.	Yes	No, not part of CTS.	No, not part of CTS.	No, not part of CTS.
1.1-8	In a Callaway-specific change, Note b, is revised to refer to the "required number of reactor vessel head closure bolts fully tensioned" and Note c is revised to read "Required reactor head closure bolts less than fully tensioned."	~~Yes~~ No	~~Yes~~ No	~~Yes~~ No	Yes Q1.1-9

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1.1-4 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

CTS 1.13, Engineered Safety Features Response Time [Diablo Canyon, Wolf Creek, and Callaway]
CTS 1.14, Engineered Safety Features Response Time [Comanche Peak]
CTS 1.27, Reactor Trip System Response Time [Wolf Creek and Callaway]
CTS 1.29, Reactor Trip System Response Time [Diablo Canyon and Comanche Peak]
DOC 1-08-A
ITS 1.1, Engineered Safety Feature (ESF) Response Time
ITS 1.1, Reactor Trip System (RTS) Response Time
JFD 1.1-5

The definitions for ESF Response Time and RTS Response Time are proposed to be revised to substitute the word "verified" in lieu of "measured." The JFD states that this change is made to be consistent with STS SR 3.3.1.6, SR 3.3.2.10, and TSTF-111, Rev.1. However, the DOC does not refer to TSTF-111 applicability for this change.

Comment: If NRC has not approved TSTF-111 by the time the draft safety evaluation is prepared, then this change should be withdrawn from the conversion submittal at that time. This change will not be reviewed on a plant-specific basis. Also, revise the DOC to include TSTF-111 applicability.

FLOG RESPONSE: The response to Comment Number 1.1-4 will be provided separately after the August 17, 1998, NRC letter to NEI on TSTF-111 has been fully evaluated.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1.1-5 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 1-17-A
ITS 1.1, Pressure and Temperature Limits Report (PTLR)
JFD 1.1-6

The definition of Pressure and Temperature Limits Report (PTLR) is added to be consistent with STS. While this is acceptable, the changes to both CTS and ITS to include the maximum allowable PORV lift settings, arming temperature associated with the cold overpressure mitigation system (COMS) [for Callaway only], and arming temperature associated with low temperature overpressurization protection (LTOP) [for Comanche Peak and Wolf Creek] are generic and are beyond the scope of the conversion review. JFD 1.1-6 states that these changes are consistent with traveler WOG-67, Rev.1.

Comment: Provide the current status of WOG-67. If WOG-67 is not approved by the TSTF, then this change should be withdrawn from the conversion submittal at the time of the TSTF rejection. If WOG-67 has not been acted upon by TSTF, or has been approved by the TSTF, but not been approved by the NRC at the time the draft safety evaluation is prepared, then this change should be withdrawn from the conversion submittal. This change will not be reviewed on a plant-specific basis.

FLOG RESPONSE: WOG-67, Rev. 1 has been designated TSTF-233 and was issued to the NRC by NEI on March 10, 1998. The latest status report from the TSTF industry database, dated July 27, 1998, indicates that the NRC has approved TSTF-233. The proposed wording in TSTF-233 was modified from WOG-67 and these modifications have been incorporated into the ITS. In addition, the PTLR definition includes the PORV lift settings consistent with the traveler's change to ITS Section 5.6.6. The FLOG continues to pursue the changes proposed by this traveler.

ATTACHED PAGES:

Encl 2	1-5
Encl 3A	3
Encl 5A	Traveler Status Page, page 1.1-5
Encl 6A	1

1.0 USE AND APPLICATION

1.~~01~~ DEFINITIONS

~~OPERATIONAL MODE -~~ MODE

1.22 ~~An OPERATIONAL~~ MODE ~~(i.e., MODE)~~ shall correspond to any one inclusive combination of core reactivity condition, power level ~~and~~, average reactor coolant temperature and reactor vessel head closure bolt tensioning specified in Table ~~1.2~~ 1.1-1 with fuel in the reactor vessel. 01-14-A

A

01-25(LS2)

Q1.1-9

PHYSICS TESTS

1.23 PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation and (1) described in Chapter 14.0 of the FSAR, (2) authorized under the provisions of 10 CFR 50.59, or (3) otherwise approved by the Nuclear Regulatory Commission. 01-01-A

~~PRESSURE BOUNDARY LEAKAGE~~ 01-11-A

~~1.24 PRESSURE BOUNDARY LEAKAGE shall be leakage, except steam generator tube leakage, through a non-isolable fault in a Reactor Coolant System component body, pipe wall or vessel wall.~~

~~PROCESS CONTROL PROGRAM~~ 01-16-LG

~~1.25 The PROCESS CONTROL PROGRAM (PCP) shall contain the current formulas, sampling, analyses, tests, and determinations to be made to ensure that processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way as to assure compliance with 10 CFR Parts 20, 61, and 71 and Federal and State regulations, burial ground requirements, and other requirements governing the disposal of solid radioactive waste.~~

~~PURGE - PURGING~~ 01-15-A

~~1.26 PURGE or PURGING shall be the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating condition, in such a manner that replacement air or gas is required to purify the confinement.~~

(new)

PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)

The PTLR is the unit specific document that provides the reactor vessel pressure and temperature limits, including heatup and cooldown rates, and the power operated relief valve (PORV) lift settings and ~~enable~~ arming temperature associated with the Low Temperature Overpressurization Protection (LTOP) System, for the current reactor vessel fluence period. These pressure and temperature limits shall be determined for each fluence period in accordance with ITS Specification 5.6.6. Plant operation within these operating limits is addressed in ~~individual specifications.~~ LCO 3.4.3, "RCS Pressure and Temperature (P/T) Limits," and LCO 3.4.12, "Low Temperature Overpressure Protection (LTOP) System." 01-17-A

Q1.1-5

CHANGE NUMBER	NSHC	DESCRIPTION
01-14	A	The CTS definition for OPERATIONAL MODE would be revised to "MODE" and the wording would be revised to be consistent with NUREG-1431. The changes are nontechnical since they will not affect current practice.
01-15	A	PROCESSES ARE Q 1.1-7 The CTS definitions of heating, ventilation, and air conditioning (HVAC) ~~systems and functions would be~~ deleted to be consistent with NUREG-1431. ~~"[Ventilation Exhaust Treatment System,]"~~ "PURGE -SPARE PURGING," and "VENTING," where used, do not require special definitions. Insert Q1.1-6
01-16	LG	The CTS definition of the PROCESS CONTROLS PROGRAM (PCP) would be moved outside of the TS along with the Administrative Controls description (CTS 6.8.1.e) of this program to be consistent with NUREG-1431. The PCP definition and program description from Administrative Controls are moved into the Final Safety Analysis Report (FSAR). The PCP implements regulatory requirements and need not be restated in the TS. The requirement to comply with applicable Federal and State regulations for the processing of radioactive waste provides sufficient control of future changes to the PCP.
01-17	A	The definition of a PRESSURE TEMPERATURE LIMITS REPORT (PTLR) would be added to be consistent with NUREG-1431 and ~~Westinghouse Owners Group (WOG) 67, Rev. 1~~ TSTF-233. The definition will support the use of a PTLR. Adding the definition is administrative in nature. In addition, the PTLR definition include the PORV lift settings consistent with the traveler's change to ITS 5.6.6. Q1.1-5
01-18	A	The portion of the QUADRANT POWER TILT RATIO (QPTR) definition dealing with an inoperable excore detector is addressed in the Conditions and SRs of ITS 3.2.4.
01-19	A	The CTS definition of REPORTABLE EVENT is not used in the ITS and would be deleted to be consistent with NUREG-1431. This definition would be deleted on the basis that a REPORTABLE EVENT is defined by 10 CFR 50.72 and 50.73. This change is administrative in nature because it will have no effect on current reporting practices.
01-20	M	The CTS definition of SHUTDOWN MARGIN (SDM) would be revised to be consistent with NUREG-1431. The requirement to account for any rod control cluster assemblies (RCCAs) not capable of being fully inserted was moved from CTS ACTION and SRs. The only substantive technical change to this definition is the addition of the requirement that in MODES 1 and 2, the fuel and moderator temperatures be changed to the hot zero power temperatures. This ensures that the power defect due to shutting the reactor down from MODES 1 or 2 is accounted for in the SDM. While this requirement is consistent with current practice, it has not been specified in the existing definition. Consequently, it has been categorized as a more restrictive change.

Industry Travelers Applicable to Section 1.0

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	~~NA~~ 1.1-12	~~Not~~ NRC approved. ~~as of traveler cut-off date.~~ TR1.0-006
~~TSTF-39, Rev. 1~~ TSTF-205	Incorporated	1.1-9, 1.1-1	Q1.1-1
~~TSTF-64~~	~~Incorporated~~	~~1.1-1~~	Q1.1-2
~~TSTF-88~~	~~Incorporated~~	~~1.1-8~~	Q1.1-9
TSTF-111, Rev. 1	Incorporated	1.1-5	
~~WOG-67, Rev. 1~~ TSTF-233	Incorporated	1.1-6	NRC Approved. Q1.1-5
~~WOG-74, Rev. 1~~ TSTF-270	Incorporated	1.1-3	Q1.4-1
~~WOG-90, Rev. 1~~ TSTF 267	Incorporated	1.1-11	Q1.4-1
TSTF-52	Incorporated	1.1-13	Incorporated Draft Rev. 1 per Q3.6.1-6

Q3.6.1-6

1.1 Definitions (continued)

for the system, subsystem, train, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s).

PHYSICS TESTS

PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation. These tests are:

a. Described in Chapter ~~[~~ 14 ~~Initial Test Program]~~ of the FSAR; B-PS

b. Authorized under the provisions of 10 CFR 50.59; or

c. Otherwise approved by the Nuclear Regulatory Commission.

PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)

The PTLR is the unit specific document that provides the reactor vessel pressure and temperature limits, including heatup and cooldown rates, and the power operated relief valve (PORV) lift settings and arming temperature associated with the Low Temperature Over pressurization Protection (LTOP) System, for the current reactor vessel fluence period. These pressure and temperature limits shall be determined for each fluence period in accordance with Specification 5.6.6. Plant operation within these operating limits is addressed in ~~individual specifications~~, ~~LCO 3.4.3, "RCS Pressure and Temperature (P/T) Limits," and LCO 3.4.12, "Low Temperature Overpressure Protection (LTOP) System."~~ 1.1-6 Q1.1-5

remove strike-out

QUADRANT POWER TILT RATIO (QPTR)

QPTR shall be the ratio of the maximum upper excore detector calibrated output to the average of the upper excore detector calibrated outputs, or the ratio of the maximum lower excore detector calibrated output to the average of the lower excore detector calibrated outputs, whichever is greater.

RATED THERMAL POWER (RTP)

RTP shall be a total reactor core heat transfer rate to the reactor coolant of ~~[2893~~ Mwt~~]~~ [3338 MWt for Unit 1 and 3411 MWt for Unit 2] B-PS

REACTOR TRIP SYSTEM (RTS) RESPONSE TIME

The RTS RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its RTS trip setpoint at the channel sensor until loss of stationary gripper coil voltage. The response time may be ~~measured~~ verified by means of any series of sequential, overlapping, or total steps so that the entire response time is ~~measured~~ verified. 1.1-5

(Continued)

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1431

NUREG-1431 Section 1.0

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.

, Channel Operational Test, and Trip Actuating Device Operational Test use language to describe the scope of testing similar to

Q1.1-2

CHANGE NUMBER	JUSTIFICATION
1.1-1	The NUREG-1431 definition of CHANNEL CALIBRATION ~~states, "The CHANNEL CALIBRATION shall encompass~~ "the entire channel, including the required sensor, alarm, display, and trip functions." This change clarifies what ~~encompasses the entire channel by rewording the definition to state, "The CHANNEL CALIBRATION shall encompass those components, such as sensors, alarms, displays, and trip functions required to perform the specified safety function(s)." The COT and TADOT definitions are also similarly revised.~~ This change is consistent with TSTF-~~64~~. 205 components are included by specifying "all devices in the channel required for channel OPERABILITY." A similar clarification is provided for the Actuation Logic Test.
1.1-2	Not Used.
1.1-3	Adds new example 1.4-4 to ITS 1.4 to clarify meaning of SR notes of the type, "Only required to be performed in MODE...." This change is consistent with ~~WOG-74, Rev. 1~~ TSTF-270. Q1.4-1
1.1-4	Not Used.
1.1-5	The definitions for ESF RESPONSE TIME and RTS RESPONSE TIME would be revised to substitute the word "verified" in lieu of "measured," consistent with the terminology of NUREG-1431, SR 3.3.1.16, and SR 3.3.2.10. This change would ensure consistency between the definitions for time and the requirements to periodically verify response time is within limits. This change is consistent with Industry Traveler TSTF-111, Rev. 1.
1.1-6	The definition of the PTLR would be revised to include the maximum allowable PORV lift settings and arming temperature associated with the [low temperature Over pressurization protection (LTOP)] system, and to be consistent with the CORE OPERATING LIMITS REPORT (COLR) definition. ITS 3.4.12 states that the PORV lift settings are specified in the PTLR. The current definition for PTLR does not identify these lift settings as being contained in the PTLR. The [LTOP] arming temperature was added to the PTLR since changes in the heatup/cooldown figures could change the arming temperature. This change corrects the PTLR definition to be consistent with all of the requirements contained in the PTLR. Referenced methodologies for the PTLR would contain the methodology used to develop the heatup and cooldown figures, as well as the methodology for developing the [LTOP] setpoints. This change is consistent with Industry Traveler ~~WOG-67, Rev. 1~~ TSTF-233. In addition, the PTLR definition includes the PORV lift settings consistent with the traveler's change to ITS 5.6.6. Q1.1-5

The word "required" is ambiguous and subject to misinterpretation as to whether the list is inclusive or representative.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1.1-6 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

CTS 1.24, Purge - Purging [Callaway and Wolf Creek]
CTS 1.26, Purge - Purging [Diablo Canyon and Comanche Peak]
CTS 1.38, Ventilation Exhaust Treatment System [Wolf Creek]
CTS 1.39, Ventilation Exhaust Treatment System [Callaway]
CTS 1.39, Venting [Wolf Creek]
CTS 1.40, Venting
CTS 1.40, Waste Gas Holdup System [Wolf Creek]
CTS 1.41, Waste Gas Holdup System [Callaway]
CTS 1.41, Ventilation Exhaust Treatment System [Diablo Canyon]
CTS 1.42, Venting [Diablo Canyon]
DOC 1-15-A

The DOC states that the definitions of HVAC systems and functions are deleted to be consistent with STS. While this is acceptable, the DOC does not provide sufficient justifications as to why this change is considered to be administrative.

Comment: Revise DOC by providing additional justification for this administrative change.

FLOG RESPONSE: DOC 1-15-A has been revised to provide additional justification that the deletion of the subject definitions are administrative in nature. The deletion of the subject definitions is consistent with NUREG-1431. These definitions are deleted since the CTS referring to the definitions no longer contain their use, or no longer are retained in the ITS. Discussion of the technical aspects of this change are addressed in each TS where they apply. Thus, the removal of the definition is considered administrative, with no impact of its own.

ATTACHED PAGES:

Encl 3A 3

CHANGE NUMBER	NSHC	DESCRIPTION
01-14	A	The CTS definition for OPERATIONAL MODE would be revised to "MODE" and the wording would be revised to be consistent with NUREG-1431. The changes are nontechnical since they will not affect current practice.
01-15	A	PROCESSES ARE Q 1.1-7 The CTS definitions of heating, ventilation, and air conditioning (HVAC) ~~systems and functions would be~~ deleted to be consistent with NUREG-1431. ~~"[Ventilation Exhaust Treatment System,]"~~ "PURGE -SPARE PURGING," and "VENTING," where used, do not require special definitions. Insert Q 1.1-6
01-16	LG	The CTS definition of the PROCESS CONTROLS PROGRAM (PCP) would be moved outside of the TS along with the Administrative Controls description (CTS 6.8.1.e) of this program to be consistent with NUREG-1431. The PCP definition and program description from Administrative Controls are moved into the Final Safety Analysis Report (FSAR). The PCP implements regulatory requirements and need not be restated in the TS. The requirement to comply with applicable Federal and State regulations for the processing of radioactive waste provides sufficient control of future changes to the PCP.
01-17	A	The definition of a PRESSURE TEMPERATURE LIMITS REPORT (PTLR) would be added to be consistent with NUREG-1431 and ~~Westinghouse Owners Group (WOG) 67, Rev. 1~~ TSTF-233. The definition will support the use of a PTLR. Adding the definition is administrative in nature. In addition, the PTLR definition include the PORV lift settings consistent with the traveler's change to ITS 5.6.6. Q 1.1-5
01-18	A	The portion of the QUADRANT POWER TILT RATIO (QPTR) definition dealing with an inoperable excore detector is addressed in the Conditions and SRs of ITS 3.2.4.
01-19	A	The CTS definition of REPORTABLE EVENT is not used in the ITS and would be deleted to be consistent with NUREG-1431. This definition would be deleted on the basis that a REPORTABLE EVENT is defined by 10 CFR 50.72 and 50.73. This change is administrative in nature because it will have no effect on current reporting practices.
01-20	M	The CTS definition of SHUTDOWN MARGIN (SDM) would be revised to be consistent with NUREG-1431. The requirement to account for any rod control cluster assemblies (RCCAs) not capable of being fully inserted was moved from CTS ACTION and SRs. The only substantive technical change to this definition is the addition of the requirement that in MODES 1 and 2, the fuel and moderator temperatures be changed to the hot zero power temperatures. This ensures that the power defect due to shutting the reactor down from MODES 1 or 2 is accounted for in the SDM. While this requirement is consistent with current practice, it has not been specified in the existing definition. Consequently, it has been categorized as a more restrictive change.

Insert for Q1.1-6

Enclosure 3a – page 3

These definitions are deleted since the CTS referring to the definitions no longer contain their use, or no longer are retained in the ITS. Discussion of the technical aspects of this change are addressed in each TS where they apply.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1.1-7 **APPLICABILITY:** CA, CP, WC, DC

REQUEST:

CTS 1.40, Waste Gas Holdup System [Wolf Creek]
CTS 1.41, Waste Gas Holdup System [Callaway and Comanche Peak]
DOC 1-15-A
DOC 1-31-A

For Callaway and Wolf Creek, the DOC in reference to the subject CTS is DOC 1-15-A. However, the subject CTS refers to DOC 1-31-A for Comanche Peak.

Comment: Clarify this deviation and, if appropriate, revise the CTS markup with the correct DOC for the particular plant.

FLOG RESPONSE: DOC 1-15-A was intended to describe the deletion of definitions for HVAC processes which are in the CTS, Section 1.0. DOC 1-31-A describes the deletion of definitions for specific plant systems which are defined by the plant design and which are in the CTS, Section 1.0.

DOC 1-15-A will be revised to insert the word "processes" after "HVAC" and delete the words "systems and functions" which led to this confusion. The bracketed systems will also be deleted from DOC 1-15-A.

The "Waste Gas Holdup System" (for all FLOG plants except DCPP) and "Ventilation Exhaust Treatment System" (for all FLOG plants except CPSES) are not HVAC processes. The correct DOC for the deletion of the definitions of these systems is DOC 1-31-A. The Callaway, Diablo Canyon, and Wolf Creek references in their respective CTS markups will be changed to DOC 1-31-A.

ATTACHED PAGES:

Encl 2	1-7
Encl 3A	3
Encl 3B	2 and 4

1.0 USE AND APPLICATION

1.~~01~~ DEFINITIONS

THERMAL POWER

1.37 THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT) the

of all devices in the channel required for trip actuating device OPERABILITY.

Q1.1-1

1.38 A ~~TRIP ACTUATING DEVICE OPERATIONAL TEST~~ TADOT shall consist of operating the ~~T~~ trip A actuating ~~D~~ device and verifying OPERABILITY ~~including all components in the channel, such as alarms, interlocks~~ displays ~~and/or trip functions required to perform the specified safety functions~~. The TADOT may be performed by means of any series of sequential, overlapping, or total channel steps ~~so that the entire channel is tested~~. The ~~TRIP ACTUATING DEVICE OPERATIONAL TEST~~ TADOT shall include adjustment, as necessary, of the ~~T~~ trip A actuating ~~D~~ device ~~such~~ so that it actuates at the required setpoint within the ~~required~~ accuracy. 01-01-A 01-32-A 01-30-A

Q1.1-1 Q1.1-2

~~UNIDENTIFIED LEAKAGE~~ necessary

~~1.39 UNIDENTIFIED LEAKAGE shall be all leakage which is not IDENTIFIED LEAKAGE or CONTROLLED LEAKAGE.~~ 01-11-A

~~UNRESTRICTED AREA~~

~~1.40 An UNRESTRICTED AREA shall be any area at or beyond the SITE BOUNDARY access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials, or any area within the SITE BOUNDARY used for residential quarters or for industrial, commercial, institutional, and/or recreational purposes.~~ 01-24-A

Q1.1-7

~~VENTILATION EXHAUST TREATMENT SYSTEM~~ 01-31-A

~~1.41 A VENTILATION EXHAUST TREATMENT SYSTEM shall be any system designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers and/or HEPA filters for the purpose of removing iodines or particulates from the gaseous exhaust stream prior to the release to the environment. Such a system is not considered to have any effect on noble gas effluents. Engineered Safety Features Atmospheric Cleanup Systems are not normally considered to be VENTILATION EXHAUST TREATMENT SYSTEM components.~~ ~~01-15-A~~

CHANGE NUMBER	NSHC	DESCRIPTION
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01-15	A	PROCESSES ARE Q 1.1-7 The CTS definitions of heating, ventilation, and air conditioning (HVAC) ~~systems and functions would be~~ deleted to be consistent with NUREG-1431. ~~"[Ventilation Exhaust Treatment System,]"~~ "PURGE -SPARE PURGING," and "VENTING," where used, do not require special definitions. Insert Q1.1-6
01-16	LG	The CTS definition of the PROCESS CONTROLS PROGRAM (PCP) would be moved outside of the TS along with the Administrative Controls description (CTS 6.8.1.e) of this program to be consistent with NUREG-1431. The PCP definition and program description from Administrative Controls are moved into the Final Safety Analysis Report (FSAR). The PCP implements regulatory requirements and need not be restated in the TS. The requirement to comply with applicable Federal and State regulations for the processing of radioactive waste provides sufficient control of future changes to the PCP.
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01-18	A	The portion of the QUADRANT POWER TILT RATIO (QPTR) definition dealing with an inoperable excore detector is addressed in the Conditions and SRs of ITS 3.2.4.
01-19	A	The CTS definition of REPORTABLE EVENT is not used in the ITS and would be deleted to be consistent with NUREG-1431. This definition would be deleted on the basis that a REPORTABLE EVENT is defined by 10 CFR 50.72 and 50.73. This change is administrative in nature because it will have no effect on current reporting practices.
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TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-10 ~~A~~	~~The CTS Administrative Controls Section definition for maximum allowable primary containment leakage rate (L_a) would be added to the ITS.~~ Not used.	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA	~~Yes~~ NA Q3.6.1-6
01-11 A	The CTS definitions for IDENTIFIED LEAKAGE, UNIDENTIFIED LEAKAGE, and PRESSURE BOUNDARY LEAKAGE have been merged into one definition for LEAKAGE and reworded.	Yes	Yes	Yes	Yes
01-12 A	The CTS definition for MEMBER OF THE PUBLIC, which is defined in 10 CFR 20.1003, would be deleted.	Yes	Yes	Yes	Yes
01-13 A	The CTS definitions of the (ODCM), [RMCP, and ERMP] would be moved to the Administrative Controls Section of the ITS.	Yes	Yes	Yes	Yes
01-14 A	The CTS definition of 'OPERATIONAL MODE' would be revised to 'MODE' and reworded.	Yes	Yes	Yes	Yes
01-15 A	The CTS definitions of HVAC PROCESSES ARE ~~systems and functions would be~~ deleted. ~~["Ventilation and Exhaust Treatment System,]"~~ "PURGE - PURGING," and "VENTING," where used, do not require special definitions.	Yes	Yes	Yes	Yes Q1.1-7
01-16 LG	The CTS definition of the PCP would be moved outside of the TS along with the Administrative Controls description of this program.	Yes, moved to the FSAR.	Yes, moved to the FSAR	Yes, moved to USAR.	Yes, moved to FSAR Section 16.25.
01-17 A	The definition of a PTLR would be added to support the use of a PTLR.	Yes	Yes	Yes	Yes
01-18 A	The portion of the QPTR definition dealing with an inoperable excore detector is addressed in the CONDITIONS and SRs of ITS 3.2.4.	Yes	Yes	Yes	Yes

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-27 M	The definition of RAFDO is deleted.	No	No	No	Yes, definition only in Callaway CTS.
01-28 LG	The definition of CONTROLLED LEAKAGE is deleted. The RCP seal water return flow limit is moved to a licensee controlled document.	No, see change number 01-05-A.	No, see Change Number 01-05-A.	Yes, moved to USAR Section 16.	Yes, moved to FSAR Section 16.4.
01-29 LS3	Allows measuring QPTR when one or more excore detector channels are inoperable with moveable in-core detectors.	No	Yes, portion of the definition being changed is only in the CPSES CTS.	No	No
01-30 A	The definitions of COT, MASTER RELAY TEST, SLAVE RELAY TEST, [CFT], and TADOT are expanded to include the details of acceptable performance methodology. Performance of these tests in a series of sequential, overlapping, or total ~~channel~~ steps provides the necessary assurance of appropriate operation of the ~~entire~~ channel, relay, or device, respectively.	Yes	Yes	Yes	Yes Q1.1-1
01-31 A	Definitions of specific plant systems which are defined by the plant design are deleted.	Yes	Yes	~~No, not in CTS~~ Yes	~~No, not in CTS~~ Yes Q1.1-7
01-32 A	The definition of CHANNEL CALIBRATION, COT, [CFT] and TADOT are reworded to be consistent with Industry Traveler ~~TSTF-64~~ TSTF-205. The revised wording clarifies what is meant by "entire channel." The definition of Actuation Logic Test is similarly clarified.	Yes	Yes	Yes	Yes Q1.1-2
01-33 A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative."	Yes	Yes	~~Yes~~ No. Amendment 109 incorporated STS wording.	Yes Q1.1-3
01-34 LS2	Insert	No	No	No	Yes Q1.1-9
01-35 A	(see insert for Q 3.6.3-1) Q3.6.3-1				
01-36 A	(see insert for Q 3.6.2-1) Q3.6.2-1				
01-37 A	(see insert for Q 3.6.1-3) Q3.6.1-3				

In 3.6 RAI'S

01-38 A	Insert from 3.6 RAI'S	No - see CN 1-37-A	Yes	No-see CN 1-37-A	No-see CN 1-37-A Q3.6.2-2

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1.1-9 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

CTS Table 1.2, Operational Modes, added footnotes (b) and (c)
DOC 1-25-LS
ITS Table 1.1-1, Modes, footnotes (b) and (c)
JFD 1.1-8

New footnotes (b) and (c) are proposed to be added per traveler TSTF-88. This is a change to both the CTS and the STS and is considered a generic change. Therefore, it is beyond the scope of the conversion review.

Comment: If NRC has not approved TSTF-88 by the time the draft safety evaluation is prepared, then this change should be withdrawn from the conversion submittal at that time. This change will not be reviewed on a plant-specific basis.

FLOG RESPONSE: TSTF-88 has been withdrawn by the TSTF. Comanche Peak, Diablo Canyon, and Wolf Creek have deleted the changes discussed in TSTF-88 and have adopted the STS footnotes. Callaway intends to pursue these changes as an out of scope item given the plant-specific NRC safety evaluation cited in new DOC 1-34-LS-2. DOC 1-25-LS-2 has been reworded and revised to be DOC 1-25-A (see attached), applicable to all FLOG plants. New DOC 1-34-LS-2 is only applicable to Callaway.

ATTACHED PAGES:

Encl 2	1-9
Encl 3A	4 and 5
Encl 3B	3 and 4
Encl 4	Table of Contents, pages 14 and 15
Encl 5A	Traveler Status Page, page 1.1-7
Encl 6A	2
Encl 6B	1

TABLE ~~1.2~~ 1.1-1

~~OPERATIONAL~~ MODES

MODE	REACTIVITY CONDITION, K_{eff}	% RATED THERMAL POWER~~*~~(a)	AVERAGE REACTOR COOLANT TEMP. (°F)
1. POWER OPERATION	≥ 0.99	> 5%	~~≥ 350°F~~ NA
2. STARTUP	≥ 0.99	≤ 5%	~~≥ 350°F~~ NA
3. HOT STANDBY	< 0.99	~~0~~ NA	≥ 350~~°F~~
4. HOT SHUTDOWN (b)	< 0.99	~~0~~ NA	350~~°F~~ > T_{avg} > 200~~°F~~
5. COLD SHUTDOWN (b)	< 0.99	~~0~~ NA	≤ 200~~°F~~
6. REFUELING~~**~~ (c)	~~≤ 0.95~~ NA	~~0~~ NA	~~≤ 140°F~~ NA

01-25 ~~1.52~~ A

Q1.1-9

~~*~~(a) Excluding decay heat.

~~** Fuel in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.~~

(b) ~~the required~~ All reactor vessel head closure bolts fully tensioned.

Q1.1-9

(c) ~~the required~~ one or more reactor vessel head closure bolts less than fully tensioned.

DESCRIPTION OF CHANGES TO TS SECTION 1.0

CHANGE NUMBER	NSHC	DESCRIPTION
01-21		Not used.
01-22	A	The definition of SOURCE CHECK is deleted from the CTS in accordance with NUREG-1431. No surveillances in the ITS require SOURCE CHECKS; therefore, this is an administrative change. It will be defined where used in licensee controlled documents; however, it has not been used in the CTS since the implementation of NRC Generic Letter 89-01.
01-23	A	The CTS definition for STAGGERED TEST BASIS (STB) would be revised to be consistent with NUREG-1431. The test intervals for throughout the ITS that are to be performed on a STB will be revised to be consistent with the new definition so that there will be no net change in the CTS implementation of staggered test intervals. For example, under the CTS, if a parameter is monitored by 3 channels of instrumentation, and the test interval is quarterly, 1 channel would be tested each month during any given quarter by dividing the test interval into 3 equal sub-intervals. Under the new definition, the test interval for that same instrumentation in the ITS would be specified as monthly so that the net effect is the same. One channel would be tested each month during any given quarter.
01-24	A	The CTS definitions of SITE BOUNDARY and UNRESTRICTED AREA ARE deleted to be consistent with NUREG-1431. These definitions are deleted on the basis that they are defined in 10 CFR 20.1003.
01-25	~~LS2~~ A	Table 1.2 of the CTS would become Table 1.1-1 in the ITS. The Q1.1-9 following changes would be made to conform to NUREG-1431. In ITS Table 1.1-1, the notation "NA" would replace "0" under % RATED THERMAL POWER for MODES 3, 4, 5, and 6. This is a nontechnical change since with K_{eff} less than 0.99, THERMAL POWER would be zero anyway. For MODE 6, the temperature has been replaced with NA since there is no safety analysis basis for the value of 140°F specified in the CTS. Also for MODE 6, the reactivity Condition has been designated NA since the value of 0.95 is specified in the Bases of ITS 3.9.1. The temperatures for MODES 1 and 2 are designated as NA on the basis that temperature for these MODES is less restrictive than the minimum temperature for criticality and the operating program for reactor coolant system Tavg. A new Note b has been added to MODES 4 and 5 stating that ~~the required number of~~ all reactor vessel head closure bolts are fully tensioned, and a new Note c replaces the Note applied to MODE 6. The new Note c states that the required one or more reactor vessel head closure bolts are less than fully tensioned. [The new Note c no longer specifies that fuel is in the vessel because the condition of fuel in the vessel is addressed by the definition of the term MODE. This definition stipulates that fuel be in the vessel in order to be in a "MODE."] These changes are administrative in nature, ~~except for the new Notes b and c per Traveler TSTF-88 and addressed in NSHC LS2~~.

CHANGE NUMBER	NSHC	DESCRIPTION
01-26	A	New Sections 1.2, 1.3, and 1.4 would be incorporated into the ITS to be consistent with NUREG-1431. Section I.2 provides specific examples of the use of the logical connectors AND and OR and the numbering sequence associated with their use in the ITS. Section 1.3 deals with the proper use and interpretation of Completion Times, and specific examples are given that will aid the user in understanding Completion Times. Section 1.4 deals with the proper use and interpretation of surveillance Frequencies. Specific examples are given that will aid the user in understanding surveillance Frequencies as they will appear in the ITS. The proposed changes are administrative in nature and by themselves are not technical changes, incorporating Travelers ~~WOG-74, Rev. 1~~ TSTF-270 and ~~WOG-90, Rev. 1~~ TSTF-267. Q1.4-1
01-27	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-28	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-29	LS3	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-30	A	Consistent with ~~TSTF-39, Rev. 1~~ TSTF-205, the definitions of COT, MASTER RELAY TEST, SLAVE RELAY TEST, [CHANNEL FUNCTIONAL TEST (CFT)], and TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT) are expanded to include the details of acceptable performance methodology. Performance of these tests in a series of sequential, overlapping, or total ~~channel~~ steps provides the necessary assurance of appropriate operation of the ~~entire~~ channel, relay, or device, respectively. This change also makes the COT, [CFT], and TADOT definitions consistent with the CTS and the NUREG-1431 definition of CHANNEL CALIBRATION which already contains similar wording. Q1.1-1
01-31	A	Definitions of specific plant systems which are defined by the plant design are deleted consistent with NUREG-1431. The definitions contained in ITS 1.0 are intended for definitions that are necessary for the understanding of the specifications and can be generically defined for most plants. Definitions of systems that are not used in the specifications, or are specific to a particular plant (or only a few plants) are no longer defined in this section. Where necessary, such items are defined in the Bases for the applicable specifications.
1-32	A	205 Q1.1-2 The definitions of CHANNEL CALIBRATION, COT, [CFT], and TADOT are reworded to be consistent with Industry Traveler TSTF-~~64~~ to clarify the phrase "entire channel;" thus reducing the potential for inconsistent interpretation of the phrase as experienced by a number of plants. A similar clarification is provided for Actuation Logic Test.
1-33	A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative" in accordance with NUREG-1431. The words as used in the definition were redundant and deleting the words does not alter the meaning of the definition.
1-35	A	see Insert for Q3.6.3-1 — Q3.6.3-1
1-36	A	see Insert for Q3.6.2-1 — Q3.6.2-1
1-37	A	see Insert for Q3.6.1-3 — Q3.6.1-3
1-34	LS2	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

3.6 RAI's

1-38 through 1-41 see section 3.6 RAI's

Q1.1-9

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-19 A	The CTS definition of REPORTABLE EVENT is not used in the ITS and is deleted.	Yes	Yes	Yes	Yes
01-20 M	The CTS definition of SDM is revised. The requirement to account for any RCCAs not capable of being fully inserted was simply moved from CTS ACTION and SRs. The only substantive technical change to this definition is the addition of the requirement that in MODES 1 and 2, the fuel and moderator temperatures be changed to the hot zero power temperatures.	Yes	Yes	Yes	Yes
01-21	Not used.	NA	NA	NA	NA
01-22 A	The definition of SOURCE CHECK is deleted from the CTS since it is not used in NUREG-1431.	Yes	Yes	Yes	Yes
01-23 A	The CTS definition for STB would be revised. The test intervals for SRs throughout the ITS that are to be performed on a STB will be revised to be consistent with the new definition.	Yes	Yes	Yes	Yes
01-24 A	The CTS definitions of SITE BOUNDARY and UNRESTRICTED AREA which are defined in 10 CFR 20.1003 would be deleted.	Yes	Yes	Yes	Yes
01-25 ~~LS2~~ A	Table 1.2 of the CTS would become Table 1.1-1 in the ITS. Several changes would be made to conform to NUREG-1431. (e.g., ITS Table 1.1-1, the notation "NA" would replace "O" under % RTP for MODES 3, 4, 5, and 6.) ~~Reactor vessel head closure bolt tensioning is revised per Traveler TSTF-88 and is discussed in NSHC LS2.~~	Yes	Yes	Yes	Yes Q1.1-9
01-26 A	New Sections 1.2, 1.3, and 1.4 would be incorporated into the ITS	Yes	Yes	Yes	Yes

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-27 M	The definition of RAFDO is deleted.	No	No	No	Yes, definition only in Callaway CTS.
01-28 LG	The definition of CONTROLLED LEAKAGE is deleted. The RCP seal water return flow limit is moved to a licensee controlled document.	No, see change number 01-05-A.	No, see Change Number 01-05-A.	Yes, moved to USAR Section 16.	Yes, moved to FSAR Section 16.4.
01-29 LS3	Allows measuring QPTR when one or more excore detector channels are inoperable with moveable in-core detectors.	No	Yes, portion of the definition being changed is only in the CPSES CTS.	No	No
01-30 A	The definitions of COT, MASTER RELAY TEST, SLAVE RELAY TEST, [CFT], and TADOT are expanded to include the details of acceptable performance methodology. Performance of these tests in a series of sequential, overlapping, or total ~~channel~~ steps provides the necessary assurance of appropriate operation of the ~~entire~~ channel, relay, or device, respectively.	Yes	Yes	Yes	Yes Q1.1-1
01-31 A	Definitions of specific plant systems which are defined by the plant design are deleted.	Yes	Yes	~~No, not in CTS.~~ Yes	~~No, not in CTS.~~ Yes Q1.1-7
01-32 A	The definition of CHANNEL CALIBRATION, COT, [CFT] and TADOT are reworded to be consistent with Industry Traveler ~~TSTF-64~~ TSTF-205. The revised wording clarifies what is meant by "entire channel." The definition of Actuation Logic Test is similarly clarified.	Yes	Yes	Yes	Yes Q1.1-2
01-33 A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative."	Yes	Yes	~~Yes~~ No. Amendment 109 incorporated STS wording.	Yes Q1.1-3
01-34 LS2	Insert	No	No	No	Yes Q1.1-9
01-35 A	(see insert for Q 3.6.3-1) Q3.6.3-1	In 3.6 RAI's			
01-36 A	(see insert for Q 3.6.2-1) Q3.6.2-1	In 3.6 RAI's			
01-37 A	(see insert for Q 3.6.1-3) Q3.6.1-3	In 3.6 RAI's			
01-38 A	Insert from 3.6 RAI's	No-see CN 1-37-A	Yes	No-see CN 1-37-A	No-see CN 1-37-A Q3.6.2-2

Enclosure 3B Page 4

01-34-LS2 In a Callaway-specific change, new notes b and c to current TS Table 1.2 are worded "Required reactor vessel head closure bolts fully tensioned" and "Required reactor vessel head closure bolts less than fully tensioned", respectively.

Applicability:

DC	NO
CP	NO
WC	NO
CA	YES

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

Q1.1-9

NSHC LS2

Not Applicable to DCPP

10CFR50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

CTS Table 1.2 (ITS Table 1.1-1) is revised such that the required vessel head closure bolt requirements for MODES 4, 5, and 6 are clarified. Currently a footnote applicable only to MODE 6 defines that MODE, in part, by reference to "vessel head closure bolts less than fully tensioned." That footnote does not specify the transition point between MODES 5 and 6 with regard to the number of vessel head closure bolts that must be fully tensioned, leaving the issue open to interpretation. The proposed change provides the necessary clarification by adding a footnote to MODES 4 and 5, consistent with the approach used in NUREG-1431 to define those MODES as having the required number of reactor head closure bolts fully tensioned. The transition point between MODES 5 and 6 would also be clarified as occurring when the reactor vessel head closure bolts are less than fully tensioned. The required number of closure bolts, which may be less than the total number, is established by analysis that demonstrates adequate O-ring compression to prevent leakage and ensures that ASME Section III stress limits for affected components are not exceeded. This revision is consistent with TSTF-88.

The 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© 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 clarifies the requirement for one or more required reactor vessel head closure bolts not fully tensioned as a condition to define MODE 6. The proposed change would not result in any hardware changes, would not affect the initiators of any analyzed events, and would not alter assumptions relative to mitigation of accident or transient events. Therefore, this 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?

   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.

Q1.1-9

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

Not Applicable to DCPP

NSHC LS2
(continued)

~~The proposed change does not involve any changes in the method by which any safety-related system performs its function. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.~~

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

~~The proposed change does not alter the basic regulatory requirements and does not change any assumptions, conditions, or acceptance criteria of any analyzed event. The analyses remain valid and the margin of safety is not changed. There is no effect on systems necessary to assure the accomplishment of accident mitigation. Therefore, the proposed change will not involve a significant reduction in a margin of safety.~~

~~NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION~~

~~Based on the above safety evaluation, the activities associated with NSHC "LS2" resulting from the conversion to the ITS format are seen to satisfy the NSHC of 10 CFR 50.92(c), and accordingly a NSHC finding is justified.~~

Industry Travelers Applicable to Section 1.0

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	~~NA~~ 1.1-12	~~Not~~ NRC approved. ~~as of traveler cut-off date.~~ TR1.0-006
~~TSTF-39, Rev. 1~~ TSTF-205	Incorporated	1.1-9, 1.1-1	Q1.1-1
~~TSTF-64~~	~~Incorporated~~	~~1.1-1~~	Q1.1-2
~~TSTF-88~~	~~Incorporated~~	~~1.1-8~~	Q1.1-9
TSTF-111, Rev. 1	Incorporated	1.1-5	
~~WOG-67, Rev. 1~~ TSTF-233	Incorporated	1.1-6	NRC Approved. Q1.1-5
~~WOG-74, Rev. 1~~ TSTF-270	Incorporated	1.1-3	Q1.4-1
~~WOG-90, Rev. 1~~ TSTF 267	Incorporated	1.1-11	Q1.4-1
TSTF-52	Incorporated	1.1-13	Incorporated Draft Rev. 1 per Q3.6.1-6

Q3.6.1-6

Table 1.1-1 (page 1 of 1)
MODES

MODE	TITLE	REACTIVITY CONDITION (k_{eff})	% RATED THERMAL POWER[a]	AVERAGE REACTOR COOLANT TEMPERATURE (°F)	
1	Power Operation	≥ 0.99	> 5	NA	
2	Startup	≥ 0.99	≤ 5	NA	
3	Hot Standby	< 0.99	NA	≥ ~~[350]~~	B
4	Hot Shutdown[b]	< 0.99	NA	[350]> T_{avg} > ~~[200]~~	B
5	Cold Shutdown[b]	< 0.99	NA	≤ ~~[200]~~	B
6	Refueling[c]	NA	NA	NA	

(a) Excluding decay heat.

(b) ~~All~~ ~~The required~~ reactor vessel head closure bolts fully tensioned. 1.1-8

(c) ~~One or more~~ ~~The required~~ reactor vessel head closure bolts less than fully tensioned.

Q1.1-9

remove strike-out

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1431

NUREG-1431 Section 1.0

CHANGE

NUMBER	JUSTIFICATION
1.1-7	The definition for CFT in the current DCPP TS will be retained in the ITS. CFT is in active use in numerous procedures in the plant. The CFT is used in applications for which the COT is not fully suitable. Although CFT and COT definitions appear similar, there is one important difference. Strict adherence to COT requirements includes quantitative adjustments as appropriate to bring setpoints into the desired range. This requirement for quantitative adjustment cannot be satisfied in a reasonable manner on some components/sensors/channels due to their design. However, CFT is a qualitative test to determine functionality. A loss of function indicated by the CFT results in a notification to restore the functional performance, following existing procedures. The CFT definition is in the DCPP CTS. The words "or actual," "required," and the "CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is tested" are added to the definition of CFT consistent with NUREG-1431 definition for COT.
1.1-8	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B). Q1.1-9 ~~The reactor vessel head closure bolt requirements for MODES 4, 5, and 6 are clarified. Footnote b is revised for MODES 4 and 5 to refer to "the required reactor vessel head closure bolts fully tensioned" and Note c for MODE 6 is revised to read "the required reactor head closure bolts less than fully tensioned." The transition point between MODES 5 and 6 would also be clarified as occurring when the required reactor vessel head closure bolts are less than fully tensioned. The required number of closure bolts, which may be less than the total number, is established by analysis that demonstrates adequate O-ring compression to prevent leakage and ensures the ASME Section III stress limits for affected components are not exceeded. This change is consistent with Industry Traveler TSTF-88.~~
1.1-9	The definitions of COT, MASTER RELAY TEST, SLAVE RELAY TEST, [CFT], and TADOT are expanded to include the details of acceptable performance methodology. Performance of these tests in a series of sequential, overlapping, or total channel steps provides the necessary assurance of appropriate operation of the ~~entire~~ channel, relay, or device, respectively. This change also makes the COT, MASTER RELAY TEST, SLAVE RELAY TEST and TADOT definitions consistent with the NUREG-1431 definition of CHANNEL CALIBRATION which already contains similar wording. This change is consistent with Industry Traveler TSTF-~~39, Rev. 1~~ 205. Q1.1-1
1.1-10	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
1.1-11	This change adds a new example (1.4-5) to ITS Section 1.4 to clarify surveillance Frequencies that are contingent on both a "specified frequency" and plant conditions. The ITS contains many surveillance Frequencies that are contingent on both a "specified frequency" and plant conditions. For example, "Within 7 days prior to the initiation of PHYSICS TESTS," and "Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days." These Frequencies do not fall clearly under any of the existing Section 1.4 examples. The proposed example is needed to make clear that: (1) the SR 3.0.2 extension of 1.25 times the specified Frequency applies to the specified Frequency, and (2) that the interval allowed to perform a missed surveillance by SR 3.0.3 applies. SR 3.0.2 is clear that the 1.25 extension may be applied to "the interval specified in the Frequency," so the proposed change does not change the intent of the specifications. SR 3.0.2 applies if a surveillance is not performed within the "specified Frequency."

DIFFERENCE FROM NUREG-1431		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
1.1-1	This change would clarify ~~what encompasses the entire channel by rewording~~ the definitions ~~to state, "The~~ of CHANNEL CALIBRATION, COT, and TADOT by replacing the existing ambiguous wording with "all devices in the channel required for channel OPERABILITY." ~~shall encompass those components, such as sensors, alarms, displays, and trip functions, required to perform the specified safety function(s)."~~ The ~~COT and TADOT~~ Actuation Logic Test definition~~s~~ ~~are~~ is similarly revised.	Yes Q1.1-2	Yes	Yes	Yes
1.1-2	Not Used.	N/A	N/A	N/A	N/A
1.1-3	~~Not Used.~~ Adds new example to ITS 1.4 to clarify the meaning of SR Notes of the type "only required to be performed in Mode..."	Yes Q1.4-1	Yes	Yes	Yes
1.1-4	Not Used.	N/A	N/A	N/A	N/A
1.1-5	The definitions for ESF RESPONSE TIME and RTS RESPONSE TIME would be revised to substitute the word "verified" in lieu of "measured" consistent with the requirements of NUREG-1431, SR 3.3.1.16 and SR 3.3.2.10.	Yes	Yes	Yes	Yes
1.1-6	The definition of the PTLR would be revised to include the maximum allowable PORV lift settings and the arming temperature associated with the LTOP system, and to be consistent with the COLR definition.	Yes	Yes	Yes	Yes
1.1-7	The definition of CFT in the CTS will be retained in the ITS. NUREG-1431 does not include the definition of this test.	Yes	No, not part of CTS.	No, not part of CTS.	No, not part of CTS.
1.1-8	In a Callaway-specific change, ~~N~~note b, is revised to refer to the "required number of reactor vessel head closure bolts fully tensioned" and Note c is revised to read "Required reactor head closure bolts less than fully tensioned."	~~Yes~~ No	~~Yes~~ No	~~Yes~~ No	Yes Q1.1-9

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 1.4-1 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 1-26-A
ITS Example 1.4-4
ITS Example 1.4-5
JFD 1.1-3
JFD 1.1-11

Additional examples, Example 1.4-4 and 1.4-5, are proposed to be included in ITS. The DOC and the JFDs state that these ITS changes are to incorporate travelers WOG-74 and WOG-90.

Comment: Provide the current status of WOG-74 and WOG-90. If WOG-74 and WOG-90 are not approved by the TSTF, then these changes should be withdrawn from the conversion submittal at the time of the TSTF rejection. If WOG-74 and WOG-90 have not been acted upon by TSTF, or have been approved by the TSTF, but not approved by the NRC at the time the draft safety evaluation is prepared, then these changes should be withdrawn from the conversion submittal. These changes will not be reviewed on a plant-specific basis.

FLOG RESPONSE: WOG-74 and WOG-90 have been approved by the TSTF and are designated as TSTF-270 and TSTF-267, respectively. Both of these travelers have been submitted to the NRC and are under review. The proposed wording in TSTF-270 was modified from WOG-74, Rev. 2, and these modifications have been incorporated into the ITS. The FLOG continues to pursue the changes proposed by these travelers.

ATTACHED PAGES:

Encl 3A	5
Encl 5A	Traveler Status Sheet
Encl 5A	1.4-5 and 1.4-6
Encl 6A	1 and 3

DESCRIPTION OF CHANGES TO TS SECTION 1.0

CHANGE NUMBER	NSHC	DESCRIPTION
01-26	A	New Sections 1.2, 1.3, and 1.4 would be incorporated into the ITS to be consistent with NUREG-1431. Section I.2 provides specific examples of the use of the logical connectors AND and OR and the numbering sequence associated with their use in the ITS. Section 1.3 deals with the proper use and interpretation of Completion Times, and specific examples are given that will aid the user in understanding Completion Times. Section 1.4 deals with the proper use and interpretation of surveillance Frequencies. Specific examples are given that will aid the user in understanding surveillance Frequencies as they will appear in the ITS. The proposed changes are administrative in nature and by themselves are not technical changes, incorporating Travelers ~~WOG-74, Rev. 1~~ TSTF-270 and ~~WOG-90, Rev. 1~~ TSTF-267. Q1.4-1
01-27	M	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-28	LG	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-29	LS3	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-30	A	Consistent with ~~TSTF-39, Rev. 1~~ TSTF-205, the definitions of COT, MASTER RELAY TEST, SLAVE RELAY TEST, [CHANNEL FUNCTIONAL TEST (CFT)], and TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT) are expanded to include the details of acceptable performance methodology. Performance of these tests in a series of sequential, overlapping, or total ~~channel~~ steps provides the necessary assurance of appropriate operation of the ~~entire~~ channel, relay, or device, respectively. This change also makes the COT, [CFT], and TADOT definitions consistent with the CTS and the NUREG-1431 definition of CHANNEL CALIBRATION which already contains similar wording. Q1.1-1
01-31	A	Definitions of specific plant systems which are defined by the plant design are deleted consistent with NUREG-1431. The definitions contained in ITS 1.0 are intended for definitions that are necessary for the understanding of the specifications and can be generically defined for most plants. Definitions of systems that are not used in the specifications, or are specific to a particular plant (or only a few plants) are no longer defined in this section. Where necessary, such items are defined in the Bases for the applicable specifications.
1-32	A	Q1.1-2 The definitions of CHANNEL CALIBRATION, COT, [CFT], and TADOT are reworded to be consistent with Industry Traveler TSTF-~~64~~ 205 to clarify the phrase "entire channel;" thus reducing the potential for inconsistent interpretation of the phrase as experienced by a number of plants. A similar clarification is provided for Actuation Logic Test.
1-33	A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative" in accordance with NUREG-1431. The words as used in the definition were redundant and deleting the words does not alter the meaning of the definition.
1-35	A	see Insert for Q3.6.3-1 — Q3.6.3-1
1-36	A	see Insert for Q3.6.2-1 — Q3.6.2-1
1-37	A	see Insert for Q3.6.1-3 — Q3.6.1-3
1-34	LS2	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

3.6 RAI's

1-38 through 1-41 see section 3.6 RAI's

Q1.1-9

Industry Travelers Applicable to Section 1.0

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	~~NA~~ 1.1-12	~~Not~~ NRC approved. ~~as of traveler cut-off date.~~ TR1.0-006
~~TSTF-39, Rev. 1~~ TSTF-205	Incorporated	1.1-9, 1.1-1	Q1.1-1
~~TSTF-64~~	~~Incorporated~~	~~1.1-1~~	Q1.1-2
~~TSTF-88~~	~~Incorporated~~	~~1.1-8~~	Q1.1-9
TSTF-111, Rev. 1	Incorporated	1.1-5	
~~WOG-67, Rev. 1~~ TSTF-233	Incorporated	1.1-6	NRC Approved. Q1.1-5
~~WOG-74, Rev. 1~~ TSTF-270	Incorporated	1.1-3	Q1.4-1
~~WOG-90, Rev. 1~~ TSTF 267	Incorporated	1.1-11	Q1.4-1
TSTF-52	Incorporated	1.1-13	Incorporated Draft Rev. 1 per Q3.6.1-6

Q3.6.1-6

1.4 Frequency

EXAMPLES (continued)

EXAMPLE 1.4-4

1.1-3

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
NOTE Only required to be performed in MODE 1	
Perform complete cycle of the valve	7 days

The interval continues, whether or not the unit operation is in MODE 1, 2, or 3 (the assumed Applicability of the associated LCO) between performances.

As the Note modifies the required performance of the Surveillance, the Note is construed to be part of the "specified Frequency." Should the 7 day interval be exceeded while operation is not in MODE 1, this note allows entry into and operation in MODES 2 and 3 to perform the Surveillance. The Surveillance is still considered to be performed within the "specified Frequency" if completed prior to entering MODE 1. Therefore, if the Surveillance were not performed within the 7 day (plus the extension allowed by SR 3.0.2) interval, but operation was not in MODE 1, it would not constitute a failure of the SR or failure to meet the LCO. Also, no violation of SR 3.0.4 occurs when changing MODES, even with the 7 day Frequency not met, provided operation does not result in entry into MODE 1.

Once the unit reaches MODE 1, the requirement for the Surveillance to be performed within its specified Frequency applies and would require that the Surveillance have been performed. If the Surveillance were not performed ~~upon~~ prior to entering MODE 1, there would then be a failure to perform a Surveillance within the specified Frequency, and the provisions of SR 3.0.3 would apply ~~(as well as having had a violation of SR 3.0.4)~~.

Q1.4-1

(Continued)

1.4 Frequency

EXAMPLES (continued)

EXAMPLE 1.4-5 1.1-11

SURVEILLANCE REQUIREMENTS 1.1-3

SURVEILLANCE	FREQUENCY
Verify each containment isolation manual valve is closed.	Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days. Q1.4-1

In Example 1.4-5, the "specified Frequency" begins when the Surveillance is performed, but when the interval expires the Surveillance is not required to be performed until certain conditions are met. The Surveillance must be performed prior to entering MODE 4 from MODE 5, but only if the 92 day "specified Frequency" has passed. Although the period prior to the specified conditions is given as 92 days, the time interval may be extended to 1.25 times the stated period as allowed by SR 3.0.2 for operational flexibility.

The measurement of this interval continues at all times, even when the SR is not required to be met per SR 3.0.1 (such as when the equipment is inoperable, a variable is outside specified limits, or the unit is outside the Applicability of the LCO). If the conditions in the Frequency are met and the interval specified by SR 3.0.2 is exceeded without the Surveillance having been performed and the performance of the Surveillance is not otherwise modified (refer to Example 1.4-3), then SR 3.0.3 becomes applicable.

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1431

NUREG-1431 Section 1.0

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.

, Channel operational Test, and Trip Actuating Device operational Test use language to describe the scope of testing similar to

Q1.1-2

CHANGE NUMBER	JUSTIFICATION
1.1-1	The NUREG-1431 definitions of CHANNEL CALIBRATION ~~states, "The CHANNEL CALIBRATION shall encompass~~ "the entire channel, including the required sensor, alarm, display, and trip functions." This change clarifies what ~~encompasses the entire channel by rewording the definition to state, "The CHANNEL CALIBRATION shall encompass those components, such as sensors, alarms, displays, and trip functions required to perform the specified safety function(s)." The COT and TADOT definitions are also similarly revised.~~ This change is consistent with TSTF-~~64~~. 205
1.1-2	Not Used.
1.1-3	Adds new example 1.4-4 to ITS 1.4 to clarify meaning of SR notes of the type, "Only required to be performed in MODE...." This change is consistent with ~~WOG-74, Rev. 1~~ TSTF-270.
1.1-4	Not Used.
1.1-5	The definitions for ESF RESPONSE TIME and RTS RESPONSE TIME would be revised to substitute the word "verified" in lieu of "measured," consistent with the terminology of NUREG-1431, SR 3.3.1.16, and SR 3.3.2.10. This change would ensure consistency between the definitions for time and the requirements to periodically verify response time is within limits. This change is consistent with Industry Traveler TSTF-111, Rev. 1.
1.1-6	The definition of the PTLR would be revised to include the maximum allowable PORV lift settings and arming temperature associated with the [low temperature Over pressurization protection (LTOP)] system, and to be consistent with the CORE OPERATING LIMITS REPORT (COLR) definition. ITS 3.4.12 states that the PORV lift settings are specified in the PTLR. The current definition for PTLR does not identify these lift settings as being contained in the PTLR. The [LTOP] arming temperature was added to the PTLR since changes in the heatup/cooldown figures could change the arming temperature. This change corrects the PTLR definition to be consistent with all of the requirements contained in the PTLR. Referenced methodologies for the PTLR would contain the methodology used to develop the heatup and cooldown figures, as well as the methodology for developing the [LTOP] setpoints. This change is consistent with Industry Traveler ~~WOG-67, Rev. 1~~ TSTF-233. In addition, the PTLR definition includes the PORV lift settings consistent with the traveler's change to ITS 5.6.6.

The word "required" is ambiguous and subject to misinterpretation as to whether the list is inclusive or representative.

components are included by specifying "all devices in the channel required for channel OPERABILITY." A similar clarification is provided for the Actuation Logic Test.

Q1.4-1

Q1.1-5

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1431

NUREG-1431 Section 1.0

CHANGE NUMBER	JUSTIFICATION
1.1-11 (continued)	Again, the example does not change the intent of the specifications but only makes clear the application of SR 3.0.2 and 3.0.3 to surveillances with Frequencies tied to plant conditions. This change will eliminate confusion and misapplication of the ITS and will ensure consistent application of SR 3.0.2 and 3.0.3 to these types of surveillance Frequencies. This change is consistent with Industry Traveler ~~WOG-90~~ TSTF-267 Q1.4-1
1.1-12	Insert TR 1.0-006
1.1-13	Insert Q3.6.1-6

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: TR 1.0-006 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

Incorporate NRC-approved traveler TSTF-19 Revision 1 to move the details of the RTD and thermocouple calibration process from the CHANNEL CALIBRATION definition to the appropriate Section 3.3 Bases. Section 3.3 Bases mark-ups are tracked under licensee initiated additional information number TR 3.3-004.

ATTACHED PAGES:

CTS 1.0/ITS 1.0

Encl 2	1-1a
Encl 3A	1
Encl 5A	Traveler Status Sheet
Encl 5A	1.1-1
Encl 6A	3
Encl 6B	2

CTS 3/4.3/ITS 3.3

Encl 5A	Traveler Status Sheet
Encl 5B	B 3.3-59, B 3.3-127, B 3.3-148, and B 3.3-155

1.0 USE AND APPLICATION

1.~~01~~1 DEFINITIONS

Q1.1-2

~~calibrated~~ Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. ~~Whenever a sensing element is replaced, the next required CHANNEL CALIBRATION shall include an in-place cross calibration that compares the other sensing elements with the recently installed sensing element.~~ 01-03-M

TR1.0-006

CHANNEL CHECK

1.6 A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation ~~by observation~~. This determination shall include, where possible, comparison of the channel indication and~~/or~~ status ~~with~~ to other indications ~~and/~~or status derived from independent instrument channels measuring the same parameter. 01-01-A

DESCRIPTION OF CHANGES TO TS SECTION 1.0

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	These definitions would be reworded to be consistent with NUREG-1431. The proposed rewording included in this category does not involve any changes of a technical nature.
01-02	A	Not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparison Table (Enclosure 3B).
01-03	M	TR1.0-006 The definition of CHANNEL CALIBRATION is reworded to be consistent with NUREG-1431 as modified by TSTF-19. The revised wording provides additional detail concerning calibration of instrument channels with resistance temperature detector (RTDs) or thermocouples.
01-04	~~A~~ LG	Q3.6.1-1 ~~The definition of CONTAINMENT INTREGITY would no longer be used and the specifications in ITS Section 3.6 and the Administrative Controls Section would be revised accordingly. The CTS definition for CONTAINMENT INTEGRITY would be deleted to be consistent with NUREG-1431. This definition is effectively incorporated into the NUREG-1431 Bases for the new Containment Limiting Condition for Operation (LCO) (ITS 3.6.1) and the Administrative Controls Section for the Containment Leakage Testing Program [ ].~~ Insert
01-05	A	The current definition for CONTROLLED LEAKAGE would be in accordance with NUREG-1431. This definition will no longer be required for the ITS because LCO 3.5.5 ensures that reactor coolant pump (RCP) seal injection flow remains within limits. Therefore, this change is not technical and has been categorized as administrative.
01-06	LS1	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B)
01-07	A	The location of the thyroid dose conversion factors used for the calculation of DOSE EQUIVALENT I-131 have been added in accordance with NUREG-1431.

Industry Travelers Applicable to Section 1.0

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	~~Not~~ Incorporated	~~NA~~ 1.1-12	~~Not~~ NRC approved. ~~as of traveler cut-off date.~~ TR 1.0-006
~~TSTF-39, Rev. 1~~ TSTF-205	Incorporated	1.1-9, 1.1-1	Q1.1-1
~~TSTF-64~~	~~Incorporated~~	~~1.1-1~~	Q1.1-2
~~TSTF-88~~	~~Incorporated~~	~~1.1-8~~	Q1.1-9
TSTF-111, Rev. 1	Incorporated	1.1-5	
~~WOG-67, Rev. 1~~ TSTF-233	Incorporated	1.1-6	NRC Approved. Q1.1-5
~~WOG-74, Rev. 1~~ TSTF-270	Incorporated	1.1-3	Q1.4-1
~~WOG-90, Rev. 1~~ TSTF 267	Incorporated	1.1-11	Q1.4-1
TSTF-52	Incorporated	1.1-13	Incorporated Draft Rev. 1 per Q3.6.1-6 Q3.6.1-6

1.0 USE AND APPLICATION

1.1 Definitions

NOTE

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications and Bases.

Term	Definition
ACTIONS	ACTIONS shall be that part of a Specification that prescribes Required Actions to be taken under designated Conditions within specified Completion Times.
ACTUATION LOGIC TEST	An ACTUATION LOGIC TEST shall be the application of various simulated or actual input combinations in conjunction with each possible interlock logic state and the verification of the required logic output. The ACTUATION LOGIC TEST, as a minimum, shall include a continuity check of output devices.
AXIAL FLUX DIFFERENCE (AFD)	AFD shall be the difference in normalized flux signals between the ~~[top and bottom halves of~~ ~~a two section~~ an excore neutron detector.~~]~~ B-PS
CHANNEL CALIBRATION	A CHANNEL CALIBRATION shall be the adjustment, output such ~~as necessary~~ necessary, of the channel ~~so~~ that it responds within the ~~required~~ range and accuracy to known ~~input~~ Values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass ~~those components~~ ~~the entire channel, including the required~~ ~~such as~~ ~~sensors, alarms, interlock, displays,~~ ~~and trip functions~~ ~~required to perform the specified safety function(s)~~ all devices in the channel required for channel OPERABILITY. Q1.1-2 1.1-1 Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. TR1.0-006 ~~Whenever a sensing element is replaced, the next required CHANNEL CALIBRATION shall include an in-place cross calibration that compares the other sensing elements with the recently installed sensing element.~~ 1.1-12 The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping ~~calibrations~~ or total channel steps. ~~so that the entire channel is calibrated~~. 1.1-1 Q1.1-2

(Continued)

CHANGE NUMBER	JUSTIFICATION
1.1-11 (continued)	Again, the example does not change the intent of the specifications but only makes clear the application of SR 3.0.2 and 3.0.3 to surveillances with Frequencies tied to plant conditions. This change will eliminate confusion and misapplication of the ITS and will ensure consistent application of SR 3.0.2 and 3.0.3 to these types of surveillance Frequencies. This change is consistent with Industry Traveler ~~WOG-90~~ TSTF-267 Q1.4-1
1.1-12	Insert TR 1.0-006
1.1-13	Insert Q3.6.1-6

Enclosure 6A Page 3

The definition of CHANNEL CALIBRATION is revised per TSTF-19 to move details of RTD and thermocouple calibration to the ITS 3.3 Bases associated with the calibration of those components.

DIFFERENCE FROM NUREG-1431		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
1.1-9	The definition of COT, MASTER RELAY TEST, SLAVE RELAY TEST, [CFT], and TADOT are expanded to include the details of acceptable performance methodology. Performance of this test in a series of sequential, overlapping, or total channel steps provides the necessary assurance of appropriate operation of the ~~entire~~ channel, relay, or device, respectively.	Yes Q1.1-1	Yes	Yes	Yes
1.1-10	This change is based on the CTS definition of CONTROLLED LEAKAGE. This change is a clarification only and does not affect the way RCS water inventory balances are performed.	No, not part of CTS.	No, not part of CTS.	No, maintaining ISTS wording.	Yes
1.1-11	This change adds a new example (1.4-5) to ITS Section 1.4 to clarify surveillance frequencies that are contingent on both specified frequency and plant conditions.	Yes	Yes	Yes	Yes
1.1-12	The definition of CHANNEL CALIBRATION is revised per TSTF-19 to move details of RTD and thermocouple calibration to the ITS 3.3 Bases associated with calibration of those components	Yes	Yes	Yes	Yes TR1.0-006
1.1-13	Insert (from 3.6 RAI's)	Yes	Yes	Yes	Yes Q3.6.1-6

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 changes only. TR1.0-006 TR 3.3-004
TSTF-36, Rev. ~~2~~ 3	Incorporated	3.3-34	TR3.3-005
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. 1	Incorporated	NA	
TSTF-135	~~Partially~~ Incorporated	3.3-41, 3.3-44 3.3-93, 3.3-95, 3.3-122 3.3-142 3.3-90 3.3-91 3.3-106	~~Traveler is too broad sccope 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	TR 3.3-002
~~TSTF-168~~	~~Incorporated~~	~~3.3-43~~	
TSTF-169	Incorporated	3.3-42	NRC Approved. TR 3.3-003
~~WOG-106~~ TSTF-242	Incorporated	3.3-49	TR 3.3-005
~~Proposed Traveler~~ TSTF-246	Incorporated	3.3-107	~~WOG Mini-group Action Item # 45~~ TR 3.3-001

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

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 a measured parameter within the necessary range and accuracy.

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.~~

TR1.0-006

TR3.3-004

INSERT

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

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]~~ 24 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

(continued)

ITS Section 3.3 Bases

Insert on Page B3.3-59

Whenever an RTD is replaced in Functions 6, 7, 10, 14a, or 14b, 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

DC-ALL-002

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.2.8

(except AFW; see SR 3.3.2.13)

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.

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.

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.~~

DC-ALL-005

The Frequency of ~~[18]~~ 24 months is based on the assumption of an 24 ~~[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.

Insert

TR 1.0-006 / TR 3.3-004

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

(continued)

Insert for TR 1.0-006

ITS Section 3.3 Bases

Insert on Page B3.3-127

Whenever an RTD is replaced in Functions 6.d.1 or 6.d.2, 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

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 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. Insert

TR 1.0-006 / TR 3.3-004

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."

(continued)

Insert for TR 1.0-006

ITS Section 3.3 Bases

Insert on Page B3.3-148

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 a core exit thermocouple is replaced in Functions 15, 16, 17, or 18, the next required CHANNEL CALIBRATION of the core exit thermocouples is accomplished by an inplace cross calibration that compares the other sensing elements with the recently installed sensing element.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.4.3 (continued)

DC-ALL-005

The Frequency of ~~[18]~~ 24 months is based upon operating experience and consistency with the ~~typical industry~~ refueling cycle.

INSERT

TR1.0-006 / TR 3.3-004

~~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.

REFERENCES

1. 10 CFR 50, Appendix A, GDC 19 (associated with 1967 GDC 11 per FSAR Appendix 3.1A)

DC-ALL-002

Insert for TR 1.0-006

ITS Section 3.3 Bases

Insert on Page B3.3-155

Whenever an RTD is replaced in Function 3a or3b, 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.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC ALL-002 **APPLICABILITY:** DC

REQUEST:

An errata to LAR 97-09 was submitted to the NRC January 8, 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-005 **APPLICABILITY:** DC

REQUEST:

DCPP has submitted and received 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 Errata to LAR 97-09 (DCL-98-003, dated January 8, 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." The RAI response to ITS 3.3 will address the implementation of DC-ALL-005.

ATTACHED PAGES:

See 3.3 Bases pages for TR 1.0-006

JLS CONVERSION TO IMPROVED TECHNICAL SPECIFICATIONS

CTS 2.0 - SAFETY LIMITS
ITS 2.0 - SAFETY LIMITS

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION AND LICENSEE INITIATED ADDITIONAL CHANGES

INDEX OF ADDITIONAL INFORMATION

ADDITIONAL INFORMATION NUMBER	APPLICABILITY	ENCLOSED
2.0.G-1	CA, CP, DC, WC	YES
2.0-1	CA	NA
2.0-2	CA, CP, DC, WC	YES
2.0-3	CA, CP, DC, WC	YES
2.0-4	DC	YES
2.0-5	DC	YES
2.0-6	WC	NA
DC 2.0-001	DC	YES
DC ALL-002 (2.0 changes only)	DC	see DCL-98-003
DC ALL-003 (2.0 changes only)	DC	YES
CP 2.0-001	CP	NA

JOINT LICENSING SUBCOMMITTEE METHODOLOGY FOR PROVIDING ADDITIONAL INFORMATION

The following methodology is followed for submitting additional information:

1. Each licensee is submitting a separate response for each section.

2. If an RAI does not apply to a licensee (i.e., does not actually impact the information that defines the technical specification change for that licensee), "NA" has been entered in the index column labeled "ENCLOSED" and no information is provided in the response for that licensee.

3. If a licensee initiated change does not apply, "NA" has been entered in the index column labeled "ENCLOSED" and no information is provided in the response for that licensee.

4. The common portions of the "Additional Information Cover Sheets" are identical, except for brackets, where applicable (using the same methodology used in enclosures 3A, 3B, 4, 6A and 6B of the conversion submittals). The list of attached pages will vary to match the licensee specific conversion submittals. A licensee's FLOG response may not address all applicable plants if there is insufficient similarity in the plant specific responses to justify their inclusion in each submittal. In those cases, the response will be prefaced with a heading such as "PLANT SPECIFIC DISCUSSION."

5. Changes are indicated using the redline/strikeout tool of WordPerfect or by using a hand markup that indicates insertions and deletions. If the area being revised is not clear, the affected portion of the page is circled. The markup techniques vary as necessary, based on the specifics of the area being changed and the complexity of the changes, to provide the clearest possible indication of the changes.

6. A marginal note (the Additional Information Number from the index) is added in the right margin of each page being changed, adjacent to the area being changed, to identify the source of each change.

7. Some changes are not applicable to one licensee but still require changes to the Tables provided in Enclosures 3A, 3B, 4, 6A, and 6B of the original license amendment request to reflect the changes being made by one or more of the other licensees. These changes are not included in the additional information for the licensee to which the change does not apply, as the changes are only for consistency, do not technically affect the request for that licensee, and are being provided in the additional information being provided by the licensees for which the change is applicable. The complete set of changes for the license amendment request will be provided in a licensing amendment request supplement to be provided later.

8. The item numbers are formatted as follows:

   [Source] [ITS Section]-[nnn]

   Source = Q - NRC Question
   CA - AmerenUE
   DC - PG&E
   WC - WCNOC
   CP - TU Electric
   TR - Traveler

   ITS Section = The ITS section associated with the item (e.g., 3.3). If all sections are potentially impacted by a broad change or set of changes, "ALL" is used for the section number.

   nnn = a three digit sequential number

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2.0.G-1 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS 2.0.x Bases

General

There have been a number of instances that the specific changes to the STS Bases are not properly identified with redline or strikeout marks.

Comment: Perform an audit of all STS Bases markups and identify instances where additions and/or deletions of Bases were not properly identified in the original submittal.

FLOG RESPONSES: The submitted ITS Bases markups for Section 2.0 have been compared to the STS Bases. Some differences that were identified were in accordance with the markup methodologies (e.g., deletion of brackets and reviewer's notes). Most of the differences were editorial in nature and would not have affected the review. Examples of editorial changes are:

1) Capitalizing a letter with only a "redline" but not striking out the lower case letter that it replaced.
2) Changing a verb from singular to plural by adding an "s" without "redlining" the "s."
3) Deleting instead of striking-out the A, B, C, etc., following a specification title (e.g., SR3.6.6A.7).
4) Changing a bracketed reference (in the reference section) with only a "redline" for the new reference but failing to include the strike-out of the old reference.
5) In some instances, the brackets were retained (and struck-out) but the unchanged text within the brackets was not redlined.
6) Not redlining a title of a bracketed section. The methodology calls for the section title to be redlined when an entire section was bracketed.
7) Additional text not contained in the STS Bases was added to the ITS Bases by the lead FLOG member during the development of the submittal. Once it was determined to not be applicable, the text was then struck-out and remains in the ITS Bases mark-up.

Differences of the above editorial nature will not be provided as attachments to this response. The pages requiring changes that are more than editorial and are not consistent with the markup methodology are attached.

ATTACHED PAGES:

Encl 5B B 2.0-3, B 2.0-7, B2.0-8

Safety limit is based upon the

Q2.0-2

red line

BASES (Continued)

Q2.0.G-1

SAFETY LIMITS

The ~~curves provided in Figure B 2.1.1-1 show the~~ loci of points of THERMAL POWER, RCS pressure, and average temperature ~~for~~ below which the ~~minimum~~ calculated DNBR is not less than ~~the safety analyses limit~~, the design DNBR value, that fuel centerline temperature remains below melting, that the average enthalpy in the hot leg is less than or equal to the enthalpy of saturated liquid, or that the exit quality is within the limits defined by the DNBR correlation.

DC-ALL-002

The curves are based on enthalpy rise hot channel factor limits provided in the COLR. ~~The dashed line of Figure B 2.1.1-1 shows an example of a limit curve at 2235 psig. In addition, it illustrates the various RPS functions that are designed to prevent the unit from reaching the limit.~~

The SL is higher than the limit calculated when the AFD is within the limits of the $F_1(\Delta I)$ function of the overtemperature ~~ΔT~~ reactor trip. When the AFD is not within the tolerance, the AFD effect on the overtemperature ~~ΔT~~ reactor trips will reduce the setpoints to provide protection consistent with the reactor core SLs (Refs. 3 ~~and 4~~).

remove strike-out

DC-ALL-002

APPLICABILITY

SL 2.1.1 only applies in MODES 1 and 2 because these are the only MODES in which the reactor is critical. Automatic protection functions are required to be OPERABLE during MODES 1 and 2 to ensure operation within the reactor core SLs. The steam generator safety valves or automatic protection actions serve to prevent RCS heatup to the reactor core SL conditions or to initiate a reactor trip function, which forces the unit into MODE 3. Setpoints for the reactor trip functions are specified in LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation." In MODES 3, 4, 5, and 6, Applicability is not required since the reactor is not generating significant THERMAL POWER.

SAFETY LIMIT VIOLATIONS

~~The following SL violation responses are applicable to the reactor core SLs.~~

~~2.2.1~~

The following SL violation responses are applicable to the reactor core SLs. If SL 2.1.1 is violated, the requirement to go to MODE 3 places the unit in a MODE in which this SL is not applicable.

Q2.0-4

The allowed Completion Time of 1 hour recognizes the importance of bringing the unit to a MODE of operation where this SL is not applicable, and reduces the probability of fuel damage.

~~Per 10CFR50.36, if a safety limit is violated, operations must not be resumed until authorized by the Commission.~~

DC-ALL-002

~~2.2.3~~

~~If SL 2.1.1 is violated, the NRC Operations Center must be notified within 1 hour, in accordance with 10 CFR 50.72 (Ref. 5)~~.

(Continued)

APPLICABLE SAFETY ANALYSES (continued)

The RCS pressurizer safety valves are sized to prevent system pressure from exceeding the design pressure by more than 10%, ~~as specified in Section III of the ASME Code for Nuclear Power Plant Components (Ref. 2)~~. The transient that establishes the required relief capacity, and hence valve size requirements and lift settings, is a ~~complete loss of external load~~ turbine trip without a direct reactor trip. ~~During the transient, no control actions are assumed, except that the~~ Safety valves on the secondary-~~plant~~ side are assumed to open when the steam pressure reaches the ~~secondary plant~~ safety valve settings, ~~and nominal~~ lost at the time of turbine trip main feedwater supply ~~is~~ is ~~maintained~~.

remove strike-out

DC-ALL-002

DC-ALL-002

redline

Q2.0.G-1

remove strike-out

The Reactor Trip System ~~setpoints (Ref. 5)~~ allowable values, together with the settings of the MSSVs, provide pressure protection for normal operation and AOOs. The reactor high pressure trip setpoint is specifically set to provide protection against overpressurization ~~(Ref. 5)~~. The safety analyses for both the high pressure trip and the RCS pressurizer safety valves are performed using conservative assumptions relative to pressure control devices.

DC-ALL-002

remove strike-out

More specifically, no credit is taken for operation of the following:

a. Pressurizer power operated relief valves (PORVs);

remove strike-out

b. Steam ~~line relief valve~~ Generator Atmospheric Dump valves;

DC-ALL-002

c. Steam Dump System;

d. Reactor Control System;

e. Pressurizer Level Control System; or

f. Pressurizer spray valve.

remove strike-out DC-ALL-002

SAFETY LIMITS

The maximum transient pressure allowed in the RCS pressure vessel under the ASME Code, Section III, is 110% of design pressure. ~~The maximum transient pressure allowed in the RCS piping, valves, and fittings under [USAS, Section B31.1 (Ref. 6)] is 120% of design pressure. The most limiting of these two allowances is the 110% of design pressure; therefore,~~ The SL on maximum allowable RCS pressure is 2735 psig.

APPLICABILITY

SL 2.1.2 applies in MODES 1, 2, 3, 4, and 5 because this SL could be approached or exceeded in these MODES due to overpressurization events. The SL is not applicable in MODE 6 because the reactor vessel head closure bolts are not fully tightened, or the reactor vessel is sufficiently vented, making it unlikely that the RCS can be pressurized.

BASES (Continued)

SAFETY LIMIT VIOLATIONS

~~The following SL violations are applicable to the RCS pressure SL.~~

~~2.2.2.1~~ strikeout Q2.0.G-1

If the RCS pressure SL is violated when the reactor is in MODE 1 or 2, the requirement is to restore compliance and be in MODE 3 within 1 hour.

Exceeding the RCS pressure SL may cause immediate RCS failure and create a potential for radioactive releases in excess of 10 CFR 100, "Reactor Site Criteria," limits (Ref. 4).

The allowable Completion Time of 1 hour recognizes the importance of reducing power level to a MODE of operation where the potential for challenges to safety systems is minimized.

~~2.2.2.2~~ strikeout Q2.0.G-1

If the RCS pressure SL is exceeded in MODE 3, 4, or 5, RCS pressure must be restored to within the SL value within 5 minutes. Exceeding the RCS pressure SL in MODE 3, 4, or 5 is more severe than exceeding this SL in MODE 1 or 2, since the reactor vessel temperature may be lower and the vessel material, consequently, less ductile. As such, pressure must be reduced to less than the SL within 5 minutes. The action does not require reducing MODES, since this would require reducing temperature, which would compound the problem by adding thermal gradient stresses to the existing pressure stress.

~~2.2.3~~

~~If the RCS pressure SL is violated, the NRC Operations Center must be notified within 1 hour, in accordance with 10 CFR 50.72 (Ref. 7).~~

~~2.2.4~~

~~If the RCS pressure SL is violated, the Plant Superintendent and the Vice President—Nuclear Operations shall be notified within 24 hours. The 24 hour period provides time for the plant operators and staff to take the appropriate immediate action and assess the condition of the unit before reporting to senior management.~~

~~2.2.5~~

~~If the RCS pressure SL is violated, a Licensee Event Report shall be prepared and submitted within 30 days to the NRC in accordance with 10 CFR 50.73 (Ref. 8). A copy of the report shall also be provided to the Plant Superintendent and the Vice President—Nuclear Operations.~~

~~2.2.6~~

~~If the RCS pressure SL is violated, restart of the unit shall not commence until authorized by the NRC. This requirement ensures the NRC that all necessary reviews, analyses, and actions are completed before the unit begins its restart to normal operation.~~

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q2.0-2 **APPLICABILITY:** CP, DC, WC, CA

REQUEST:

NUREG-1431 Bases (markup)
B 2.1.1 Reactor Core SLs (Callaway and Comanche Peak [pages 2.0-3])

Comment: The SAFETY LIMITS refer to Figure B 1.1.1-1. This figure was not included in the B 2.1.1 markup of NUREG-1431. Provide Figure B 1.1.1-1.

FLOG RESPONSE: The FLOG has carefully examined the use of examples and typical information in the Bases of the ITS. The intent of these examples and typical information is to clarify the meaning of the Bases and thus the meaning of the ITS. In some cases, the examples and typical information may create a human factors problem. If an example or typical information is not identical to the ITS, the operator may become confused and inadvertently use the information in the Bases. Although this scenario should be unlikely, the value of the clarification provided must be weighed against the possibility and consequences if an operator error is induced.

For the subject figure, it was the best judgment of the licensees that the typical information provided in the STS Bases figure should not be included in the ITS Bases and the figure is being intentionally deleted. Callaway and Comanche Peak removed the figure in their initial submittals. Diablo Canyon and Wolf Creek have revised the ITS Bases to reflect deletion of this figure from the ITS Bases.

ATTACHED PAGES:

Encl 5B B 2.0-3, B 2.0-5

safety limit is based upon the

Q2.0-2

red line

Q2.0.G-1

BASES (Continued)

SAFETY LIMITS

The ~~curves provided in Figure B 2.1.1-1 show the~~ loci of points of THERMAL POWER, RCS pressure, and average temperature ~~for~~ below which the ~~minimum~~ calculated DNBR is not less than ~~the safety analyses limit~~, the design DNBR value, that fuel centerline temperature remains below melting, that the average enthalpy in the hot leg is less than or equal to the enthalpy of saturated liquid, or that the exit quality is within the limits defined by the DNBR correlation.

DC-ALL-002

The curves are based on enthalpy rise hot channel factor limits provided in the COLR. ~~The dashed line of Figure B 2.1.1-1 shows an example of a limit curve at 2235 psig. In addition, it illustrates the various RPS functions that are designed to prevent the unit from reaching the limit.~~

The SL is higher than the limit calculated when the AFD is within the limits of the $F_1(\Delta I)$ function of the overtemperature ~~ΔT~~ reactor trip. When the AFD is not within the tolerance, the AFD effect on the overtemperature ~~ΔT~~ reactor trips will reduce the setpoints to provide protection consistent with the reactor core SLs (Refs. 3 ~~and 4~~).

remove strike-out

DC-ALL-002

APPLICABILITY

SL 2.1.1 only applies in MODES 1 and 2 because these are the only MODES in which the reactor is critical. Automatic protection functions are required to be OPERABLE during MODES 1 and 2 to ensure operation within the reactor core SLs. The steam generator safety valves or automatic protection actions serve to prevent RCS heatup to the reactor core SL conditions or to initiate a reactor trip function, which forces the unit into MODE 3. Setpoints for the reactor trip functions are specified in LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation." In MODES 3, 4, 5, and 6, Applicability is not required since the reactor is not generating significant THERMAL POWER.

SAFETY LIMIT VIOLATIONS

~~The following SL violation responses are applicable to the reactor core SLs.~~

~~2.2.1~~

The following SL violation responses are applicable to the reactor core SLs. If SL 2.1.1 is violated, the requirement to go to MODE 3 places the unit in a MODE in which this SL is not applicable.

Q2.0-4

The allowed Completion Time of 1 hour recognizes the importance of bringing the unit to a MODE of operation where this SL is not applicable, and reduces the probability of fuel damage.

~~Per 10CFR50.36, if a safety limit is violated, operations must not be resumed until authorized by the Commission.~~

DC-ALL-002

~~2.2.3~~

~~If SL 2.1.1 is violated, the NRC Operations Center must be notified within 1 hour, in accordance with 10 CFR 50.72 (Ref. 5)~~.

(Continued)

Q2.0-2

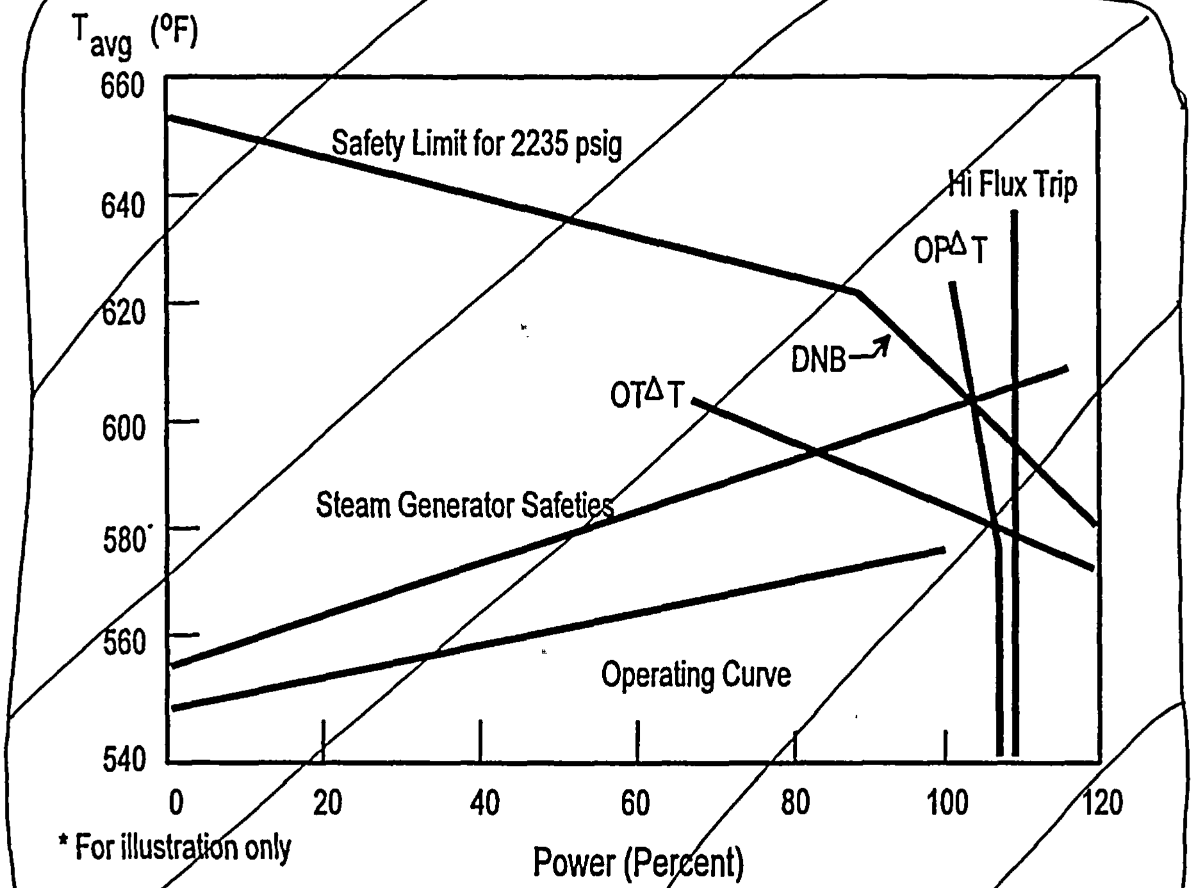

Figure B 2.1.1-1 (page 1 of 1)
Reactor Core Safety Limits vs. Boundary of Protection

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q2.0-3 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

NUREG-1431 Bases (markup)
B 2.1.2 RCS Pressure SL (All FLOG Plants [Callaway and Diablo Canyon [page B 2.0-8], Comanche Peak [page B 2.0-7], and Wolf Creek [page B 2.0-9])

Comment: The APPLICABLE SAFETY ANALYSES has been revised to include, "...The transient that establishes the required relief capacity, and hence valve size requirements and lift settings, is a ~~complete loss of external load~~ turbine trip without a direct reactor trip. Cases with and without pressurizer spray and PORVs are analyzed. ~~During the transient, no control actions are assumed, except that the~~ Safety valves on the secondary ~~plant~~ side are assumed to open when the steam pressure reaches the ~~secondary~~ plant safety valve settings, ~~and nominal~~ Main feedwater supply is ~~maintained.~~ lost at the time of turbine trip.

Justify the revised STS Bases 2.1.2 changes.

FLOG RESPONSE: These mark-ups directly reflect plant-specific accident analyses discussed in FSAR Chapter 15.

Plant Specific Discussion

Per FSAR Section 15.2.7.2, the specific transient analyzed to evaluate the effects and consequences of a complete loss of external load without a direct reactor trip was a turbine trip without an immediate reactor trip with main feedwater flow terminated at the time of the turbine trip. Thus, the plant specific accident analyses section in ITS Bases 2.1.2 was revised accordingly.

Copies of pertinent FSAR Section 15.2.7 pages have been attached for information.

ATTACHED PAGES:

DCPP FSAR pages 15.2-22 through 15.2-26

Q2.0-3

15.2.6.4 Conclusions

The transient results show that the core is not adversely affected. There is considerable margin to the safety analysis DNBR limit values; thus, no fuel or cladding damage is predicted.

15.2.7 LOSS OF EXTERNAL ELECTRICAL LOAD AND/OR TURBINE TRIP

15.2.7.1 Identification of Causes and Accident Description

A major load loss on the plant can result from either a loss of external electrical load or from a turbine trip. For either case, offsite power is available for the continued operation of plant components such as the reactor coolant pumps. The case of loss of offsite power is analyzed in Section 15.2.9.

For a turbine trip, the reactor would be tripped directly (unless it is below the P-9 setpoint) from a signal derived from the turbine autostop oil pressure and turbine stop valves. The automatic steam dump system accommodates the excess steam generation. Reactor coolant temperatures and pressure do not significantly increase if the steam dump system and pressurizer pressure control system are functioning properly. If the turbine condenser were not available, the excess steam generation would be dumped to the atmosphere. Additionally, main feedwater flow would be lost if the turbine condenser were not available. For this situation, steam generator level would be maintained by the auxiliary feedwater system.

For a loss of external electrical load without subsequent turbine trip, no direct reactor trip signal would be generated. A continued steam load of approximately 5 percent would exist after total loss of external electrical load because of the electrical demand of plant auxiliaries.

In the event the steam dump valves fail to open following a large loss of load, the steam generator safety valves may lift and the reactor may be tripped by the high pressurizer pressure signal, the high pressurizer water level signal, or the overtemperature ΔT signal. The steam generator shell-side pressure and reactor coolant temperatures will increase rapidly. The pressurizer safety valves and steam generator safety valves are, however, sized to protect the RCS and steam generator against overpressure for all load losses without assuming the operation of the steam dump system, pressurizer spray, pressurizer power-operated relief valves, automatic RCCA control, or direct reactor trip on turbine trip.

The steam generator safety valve capacity is sized to remove the steam flow at the engineered safeguards design rating (105 percent of steam flow at rated power) from the steam generator without exceeding 110 percent of the steam system design pressure. The pressurizer safety valve capacity is sized based on a complete loss of heat sink with the plant initially operating at the maximum calculated turbine load along with operation of the steam generator safety valves. The pressurizer safety valves are then able to maintain the RCS pressure within 110 percent of the RCS design pressure without direct or immediate reactor trip action.

A more complete discussion of overpressure protection can be found in Reference 8.

15.2.7.2 Analysis of Effects and Consequences

In this analysis, the behavior of the unit is evaluated for a complete loss of steam load from full power without a direct reactor trip. This is done to show the adequacy of the pressure-relieving devices and to demonstrate core protection margins. The reactor is not tripped until conditions in the RCS result in a trip. The turbine is assumed to trip without actuating all the turbine stop valve limit switches. This assumption delays reactor trip until conditions in the RCS result in a trip due to other signals. Thus, the analysis assumes a worst case transient. In addition, no credit is taken for steam dump. Main feedwater flow is terminated at the time of turbine trip, with no credit taken for auxiliary feedwater (except for long-term recovery) to mitigate the consequences of the transient.

Total loss of load transients are analyzed for DNB and overpressure concerns. The LOFTRAN computer program (see Section 15.1) is used to analyze the total loss of load transients for the DNB concern. The RETRAN-02 computer program (see Section 15.1) is used to analyze the transients for the overpressure concern. Both programs simulate the neutron kinetics, RCS, pressurizer, pressurizer relief and safety valves, pressurizer spray, steam generator, and steam generator safety valves. The programs compute pertinent variables, including temperatures, pressures, and power level.

Major assumptions are summarized below:

(1) Initial Operating Conditions

The initial reactor power, RCS pressure, and RCS temperatures are assumed at their nominal values consistent with steady state full power operation.

(2) Moderator and Doppler Coefficients of Reactivity

The turbine trip is analyzed with both maximum and minimum reactivity feedback. The maximum feedback (EOL) cases assume a large negative moderator temperature coefficient and the most negative Doppler power coefficient. The minimum feedback (BOL) cases assume a minimum moderator temperature coefficient and the least negative Doppler coefficient.

(3) Reactor Control

From the standpoint of the maximum pressures attained, it is conservative to assume that the reactor is in manual control. If the reactor were in automatic control, the control rod banks would move prior to trip and reduce the severity of the transient.

(4) Steam Release

No credit is taken for the operation of the steam dump system or steam generator power-operated relief valves. The steam generator pressure rises to the safety valve setpoint where steam release through safety valves limits secondary steam pressure at the setpoint value.

(5) Pressurizer Spray and Power-operated Relief Valves

For the DNB concern, two cases for both BOL and EOL are analyzed using the LOFTRAN computer program. For the overpressure concern, since the total loss of load transients result in higher peak RCS and steam generator pressures at BOL, the same two cases are analyzed using the RETRAN-02 computer program for BOL only.

(a) Full credit is taken for the effect of pressurizer spray and power-operated relief valves in reducing or limiting the coolant pressure. Safety valves are also available.

(b) No credit is taken for the effect of pressurizer spray and power-operated relief valves in reducing or limiting the coolant pressure. Safety valves are operable.

(6) Feedwater Flow

Main feedwater flow to the steam generators is assumed to be lost at the time of turbine trip. No credit is taken for auxiliary feedwater flow since a stabilized plant condition will be reached before auxiliary feedwater initiation is normally assumed to occur; however, the auxiliary feedwater pumps would be expected to start on a trip of the main feedwater pumps. The auxiliary feedwater flow would remove core decay heat following plant stabilization.

The following assumptions are used in the RETRAN-02 analysis for the overpressure concern only.

(7) To enhance the main steam line safety valve model, the individual nominal setpoint, plus 3 percent tolerance for each safety valve, is modeled in the analysis. In other words, the main steam safety valves start to open when the steam pressure reaches their nominal setpoints plus 3 percent. Then, the main steam safety valves are assumed to linearly open with the pressure, until fully open at the 3 percent pressure accumulation (3 percent above the initial opening pressure).

(8) The presence of loop seal delays the opening of the pressurizer safety valve. The loop seal water starts to leak out from the safety valve when the safety

valve setpoint is reached. However, no pressure is relieved from the pressurizer until the loop seal water is completely purged, after which the safety valve pops full open in less than 0.1 second. The loop seal water purge time of 1.272 seconds is used in the analysis.

(9) The initial pressurizer pressure of 2176.9 psig is used in the analysis, which includes a 58.1 psi pressurizer pressure control uncertainty.

(10) It is conservative to maximize the reactor power. Therefore, the reactor trip due to high neutron flux is not credited in the analysis.

Reactor trip is actuated by the first reactor protection system trip setpoint reached with no credit taken for the direct reactor trip on the turbine trip.

15.2.7.3 Results

The transient responses for a total loss of load from full power operation are shown for six cases: two cases for the BOL for the DNB concern, two cases for the EOL for the DNB concern, and two cases for the BOL for the overpressure concern, in Figures 15.2.7-1 through 15.2.7-12.

Figures 15.2.7-1 and 15.2.7-2 show the transient responses for the total loss of steam load at BOL, for the DNB concern, assuming full credit for the pressurizer spray and pressurizer power-operated relief valves. No credit is taken for the steam dump. The reactor is tripped by the high pressurizer pressure trip channel. The minimum DNBR is well above the limit value.

Figures 15.2.7-3 and 15.2.7-4 show the responses for the total loss of load at EOL, for the DNB concern, assuming a large (absolute value) negative moderator temperature coefficient. All other plant parameters are the same as in the above case. As a result of the maximum reactivity feed at EOL, no reactor protection system trip setpoint is reached. Because main feedwater is assumed to be lost, the reactor is tripped by the low-low steam generator water level trip channel. The DNBR increases throughout the transient and never drops below its initial value. The pressurizer safety valves are not actuated in these transients.

Total loss of load was also studied assuming the plant to be initially operating at full power with no credit taken for the pressurizer spray, pressurizer power-operated relief valves, or steam dump. The reactor is tripped on the high pressurizer pressure signal. Figures 15.2.7-5 and 15.2.7-6 show the BOL transients for the DNB concern. The neutron flux remains constant at full power until the reactor is tripped. The DNBR generally increases throughout the transient.

Figures 15.2.7-7 and 15.2.7-8 show the transients at the EOL, for the DNB concern, with the other assumptions being the same as in Figures 15.2.7-5 and 15.2.7-6. Again, the DNBR increases throughout the transient.

Figures 15.2.7-9 and 15.2.7-10 show the transient responses for the total loss of load at BOL for the overpressure concern. No credit is taken for the pressurizer spray, pressurizer power-operated relief valves, or steam dump. The pressurizer and main steam safety valves are modeled as described in assumptions 7 and 8. The initial pressurizer pressure includes the pressurizer pressure control uncertainty to maximize the peak pressure. The reactor is tripped on the high pressurizer pressure signal. This case results in the highest RCS peak pressure among all cases. The peak RCS pressure is below 110 percent of the design value.

Figures 15.2.7-11 and 15.2.7-12 show the transient responses for the total loss of load at BOL for the overpressure concern, assuming full credit for the pressurizer spray and the pressurizer power-operated relief valves. No credit is taken for the steam dump. The models for the pressurizer and main steam safety valves and the initial pressurizer pressure are the same as those used in the above case. The reactor trip due to high neutron flux is not credited in order to maximize the peak steam generator pressure. The reactor is tripped on the high pressurizer pressure signal. This case results in the highest steam generator peak pressure among all cases. The peak steam generator pressure is below 110 percent of the design value.

Reference 8 presents additional results for a complete loss of heat sink including loss of main feedwater. This report shows the overpressure protection that is afforded by the pressurizer and steam generator safety valves.

15.2.7.4 Conclusions

Results of the analyses, including those in Reference 8, show that the plant design is such that a total loss of external electrical load without a direct or immediate reactor trip presents no hazard to the integrity of the RCS or the main steam system. Pressure-relieving devices incorporated in the two systems are adequate to limit the maximum pressures to within the design limits.

The integrity of the core is maintained by operation of the reactor protection system; i.e., the DNBR will be maintained above the safety analysis limit values. Thus, no core safety limit will be violated.

15.2.8 LOSS OF NORMAL FEEDWATER

15.2.8.1 Identification of Causes and Accident Description

A loss of normal feedwater (from pump failures, valve malfunctions, or loss of offsite ac power) results in a reduction in capability of the secondary system to remove the heat generated in the reactor core. If the reactor were not tripped during this accident, core damage would possibly occur from a sudden loss of heat sink. If an alternative supply of feedwater were not supplied to the plant, residual heat following reactor trip would heat the primary system water to the point where water relief from the pressurizer would occur. Significant loss of water from the RCS could conceivably lead to core damage. Since the

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2.0-4 **APPLICABILITY:** DC

REQUEST:

NURGE-1431 Bases (markup)
B 2.1.1 Reactor Core SLs (Diablo Canyon [page B 2.0-3])

Comment: In the SAFETY LIMIT VIOLATIONS the licensee needs to correct, "The following SL violation responses are applicable to the reactor core Sls ..."

FLOG RESPONSE:

"Sls" is changed to "SLs" in Enclosure 5B, page B 2.0-3.

ATTACHED PAGES

Encl 5B B 2.0-3

safety limit is based upon the

Q2.0-2

red line

Q2.0.G-1

BASES (Continued)

SAFETY LIMITS

The ~~curves provided in Figure B 2.1.1-1 show the~~ loci of points of THERMAL POWER, RCS pressure, and average temperature ~~for~~ below which the ~~minimum~~ calculated DNBR is not less than ~~the safety analyses limit~~, the design DNBR value, that fuel centerline temperature remains below melting, that the average enthalpy in the hot leg is less than or equal to the enthalpy of saturated liquid, or that the exit quality is within the limits defined by the DNBR correlation.

DC-ALL-002

The curves are based on enthalpy rise hot channel factor limits provided in the COLR. ~~The dashed line of Figure B 2.1.1-1 shows an example of a limit curve at 2235 psig. In addition, it illustrates the various RPS functions that are designed to prevent the unit from reaching the limit.~~

The SL is higher than the limit calculated when the AFD is within the limits of the $F_1(\Delta I)$ function of the overtemperature ~~ΔT~~ reactor trip. When the AFD is not within the tolerance, the AFD effect on the overtemperature ~~ΔT~~ reactor trips will reduce the setpoints to provide protection consistent with the reactor core SLs (Refs. 3 ~~and 4~~).

remove strike-out

DC-ALL-002

APPLICABILITY

SL 2.1.1 only applies in MODES 1 and 2 because these are the only MODES in which the reactor is critical. Automatic protection functions are required to be OPERABLE during MODES 1 and 2 to ensure operation within the reactor core SLs. The steam generator safety valves or automatic protection actions serve to prevent RCS heatup to the reactor core SL conditions or to initiate a reactor trip function, which forces the unit into MODE 3. Setpoints for the reactor trip functions are specified in LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation." In MODES 3, 4, 5, and 6, Applicability is not required since the reactor is not generating significant THERMAL POWER.

SAFETY LIMIT VIOLATIONS

~~The following SL violation responses are applicable to the reactor core SLs.~~

~~2.2.1~~

The following SL violation responses are applicable to the reactor core SLs. If SL 2.1.1 is violated, the requirement to go to MODE 3 places the unit in a MODE in which this SL is not applicable.

Q2.0-4

The allowed Completion Time of 1 hour recognizes the importance of bringing the unit to a MODE of operation where this SL is not applicable, and reduces the probability of fuel damage.

~~Per 10CFR50.36, if a safety limit is violated, operations must not be resumed until authorized by the Commission.~~

DC-ALL-002

~~2.2.3~~

~~If SL 2.1.1 is violated, the NRC Operations Center must be notified within 1 hour, in accordance with 10 CFR 50.72 (Ref. 5)~~.

(Continued)

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 2.0-5 **APPLICABILITY:** DC

REQUEST:

NUREG-1431 Bases (markup)
B 2.1.1 Reactor Core SLs (Diablo Canyon [pages B 2.0-7, B 2.0-8, and B 2.0-9])

Comment: The header markup of Diablo Canyon B2.1.1 Reactor Core SLs (pages B2.0-7, B2.0-8, and B2.0-9) are incorrect. Correct the header for these pages to "RCS Pressure SL, B2.1.2."

FLOG RESPONSE: The headers in the DCPP markup of NUREG-1431 Bases (Enclosure 5B) on pages B2.0.7, B2.0.8, and B2.0.9 are changed from "Reactor Core SLs, B2.1.1" to "RCS Pressure SLs, B2.1.2."

ATTACHED PAGES:

Encl 5B B 2.0-7, B 2.0-8 and B 2.0-9

APPLICABLE SAFETY ANALYSES (continued)

The RCS pressurizer safety valves are sized to prevent system pressure from exceeding the design pressure by more than 10%, ~~as specified in Section III of the ASME Code for Nuclear Power Plant Components (Ref. 2)~~. The transient that establishes the required relief capacity, and hence valve size requirements and lift settings, is a ~~complete loss of external load~~ turbine trip without a direct reactor trip. ~~During the transient, no control actions are assumed, except that the~~ Safety valves on the secondary ~~plant~~ side are assumed to open when the steam pressure reaches the ~~secondary plant~~ safety valve settings, ~~and nominal~~ lost at the time of turbine trip main feedwater supply ~~is~~ is ~~maintained~~.

remove strike-out

redline

DC-ALL-002

Q2.0-G-1

The Reactor Trip System ~~setpoints (Ref. 5)~~ allowable values, together with the settings of the MSSVs, provide pressure protection for normal operation and AOOs. The reactor high pressure trip setpoint is specifically set to provide protection against overpressurization ~~(Ref. 5)~~. The safety analyses for both the high pressure trip and the RCS pressurizer safety valves are performed using conservative assumptions relative to pressure control devices.

remove strike-out

DC-ALL-002

More specifically, no credit is taken for operation of the following:

a. Pressurizer power operated relief valves (PORVs);

b. Steam ~~line relief valve~~ Generator Atmospheric Dump valves;

remove strike-out

DC-ALL-002

c. Steam Dump System;

d. Reactor Control System;

e. Pressurizer Level Control System; or

f. Pressurizer spray valve.

remove strike-out

DC-ALL-002

SAFETY LIMITS

The maximum transient pressure allowed in the RCS pressure vessel under the ASME Code, Section III, is 110% of design pressure. ~~The maximum transient pressure allowed in the RCS piping, valves, and fittings under [USAS, Section B31.1 (Ref. 6)] is 120% of design pressure. The most limiting of these two allowances is the 110% of design pressure; therefore,~~ The SL on maximum allowable RCS pressure is 2735 psig.

APPLICABILITY

SL 2.1.2 applies in MODES 1, 2, 3, 4, and 5 because this SL could be approached or exceeded in these MODES due to overpressurization events. The SL is not applicable in MODE 6 because the reactor vessel head closure bolts are not fully tightened, or the reactor vessel is sufficiently vented, making it unlikely that the RCS can be pressurized.

BASES (Continued)

SAFETY LIMIT VIOLATIONS

~~The following SL violations are applicable to the RCS pressure SL.~~

~~2.2.2.1~~ strikeout Q2.0.6-1

If the RCS pressure SL is violated when the reactor is in MODE 1 or 2, the requirement is to restore compliance and be in MODE 3 within 1 hour.

Exceeding the RCS pressure SL may cause immediate RCS failure and create a potential for radioactive releases in excess of 10 CFR 100, "Reactor Site Criteria," limits (Ref. 4).

The allowable Completion Time of 1 hour recognizes the importance of reducing power level to a MODE of operation where the potential for challenges to safety systems is minimized.

~~2.2.2.2~~ strikeout Q2.0.6-1

If the RCS pressure SL is exceeded in MODE 3, 4, or 5, RCS pressure must be restored to within the SL value within 5 minutes. Exceeding the RCS pressure SL in MODE 3, 4, or 5 is more severe than exceeding this SL in MODE 1 or 2, since the reactor vessel temperature may be lower and the vessel material, consequently, less ductile. As such, pressure must be reduced to less than the SL within 5 minutes. The action does not require reducing MODES, since this would require reducing temperature, which would compound the problem by adding thermal gradient stresses to the existing pressure stress.

~~2.2.3~~

~~If the RCS pressure SL is violated, the NRC Operations Center must be notified within 1 hour, in accordance with 10 CFR 50.72 (Ref. 7).~~

~~2.2.4~~

~~If the RCS pressure SL is violated, the Plant Superintendent and the Vice President—Nuclear Operations shall be notified within 24 hours. The 24 hour period provides time for the plant operators and staff to take the appropriate immediate action and assess the condition of the unit before reporting to senior management.~~

~~2.2.5~~

~~If the RCS pressure SL is violated, a Licensee Event Report shall be prepared and submitted within 30 days to the NRC in accordance with 10 CFR 50.73 (Ref. 8). A copy of the report shall also be provided to the Plant Superintendent and the Vice President—Nuclear Operations.~~

~~2.2.6~~

~~If the RCS pressure SL is violated, restart of the unit shall not commence until authorized by the NRC. This requirement ensures the NRC that all necessary reviews, analyses, and actions are completed before the unit begins its restart to normal operation.~~

BASES (Continued)

REFERENCES

1. 10 CFR 50, Appendix A, GDC 14 insert 1, GDC 15 insert 2, and GDC 28 insert 3. DC-ALL-002

~~2. ASME, Boiler and Pressure Vessel Code, Section III,~~ insert 4 ~~Article NB-7000.~~ retain strike-out remove strikeout

3. ASME, Boiler and Pressure Vessel Code, Section XI, ~~Article IWX-5000.~~ 1977 Edition and Summer 1978 Addenda

4. 10 CFR 100. DC-ALL-002

~~5. FSAR, Section [7.2].~~ remove strike-out

~~6. USAS B31.1, Standard Code for Pressure Piping, American Society of Mechanical Engineers, 1967.~~ DCM S-7, 3.4.1 remove strike-out

~~7. 10 CFR 50.72.~~

~~8. 10 CFR 50.73.~~

~~9. Westinghouse report SD-117, "Structural Analysis of Reactor Coolant Loop/Support System for Diablo Canyon Nuclear Generating Station Unit No. 1, February, 1975."~~

DC-ALL-002

insert 1: (associated with 1967 GDC 9 per FSAR Appendix 3.1A)

insert 2: (no direct correlation to 1967 GDC; however, intent of 1971 GDC is met per FSAR Appendix 3.1A)

insert 3: (associated with 1967 GDC 30 per FSAR Appendix 3.1A)

insert 4: Summer 1969. DC-2.0-ED

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC 2.0-001 **APPLICABILITY:** DC

REQUEST:

Revise the description of JFD 2.0-02 to be consistent with the other FLOG submittals.

ATTACHED PAGES

Encl 6A	1
Encl 6B	1

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1431

NUREG-1431 Section 2.0

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.

CHANGE NUMBER	JUSTIFICATION
2.0-01	SL violation requirements that duplicate regulations would be eliminated. The applicable regulations are 50.36, 50.72, and 50.73 for reporting an SL violation and 50.36 for obtaining NRC authorization to operate the reactor following an SL violation. These changes are in accordance with TSTF-5, Rev. 1 which has been approved by the NRC.
2.0-02	The requirements regarding notification of licensee management following SL violations and obtaining reviews of LERs by management and the offsite review committee would be deleted. ~~These requirements would be contained in licensee controlled documents.~~ These changes are also in accordance with TSTF-5, Rev. 1. DC 2.0-001

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
2.0-01	SL violation requirements that duplicate regulations would be eliminated.	Yes	Yes	Yes	Yes
2.0-02	The requirements regarding notification of licensee management following SL violations and obtaining reviews of LERs by management and the offsite review committee would be ~~relocated to licensee controlled documents~~ deleted.	Yes ~~(relocated to FSAR Chapter 16)~~	Yes	Yes	Yes

DC 2.0-001

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC ALL-002 **APPLICABILITY:** DC

REQUEST:

An errata to LAR 97-09 was submitted to the NRC January 8, 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 3B and 6B (Conversion Comparison Tables). These changes were identified with "{ }" to ensure the difference between the other FLOG members was noted. The changes occurred in DOC 2-02-LG, 2-04-M, and 2-05-A and JFD 2.0-02. JFD 2.0-02 was updated per DC 2.0-001.

ATTACHED PAGES:

Encl 3B page 1

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. DC-ALL-003	Yes	Yes
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	No DC-ALL-003	No	No
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

JLS CONVERSION TO IMPROVED TECHNICAL SPECIFICATIONS

CTS 3/4.0 - Limiting Conditions for Operation Applicability/Surveillance Requirement Applicability
ITS 3.0 - Limiting Conditions for Operation Applicability/Surveillance Requirement Applicability

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION AND LICENSEE INITIATED ADDITIONAL CHANGES

INDEX OF ADDITIONAL INFORMATION

ADDITIONAL INFORMATION NUMBER	APPLICABILITY	ENCLOSED
3.0.G-1	DC, CP, WC, CA	YES
3.0-1	DC, CP, WC, CA	YES
3.0-2	CP	NA
3.0-3	DC, CP, WC, CA	YES
3.0-4	DC, CP, WC, CA	YES
3.0-5	DC, CP, WC, CA	YES
3.0-6	DC, CP, WC, CA	YES
3.0-7	DC	YES
TR 3.0-001	DC, CP, WC, CA	YES
TR 3.0-002	DC, CP, WC, CA	YES
DC 3.0-001	DC	YES

JOINT LICENSING SUBCOMMITTEE METHODOLOGY FOR PROVIDING ADDITIONAL INFORMATION

The following methodology is followed for submitting additional information:

1. Each licensee is submitting a separate response for each section.

2. If an RAI does not apply to a licensee (i.e., does not actually impact the information that defines the technical specification change for that licensee), "NA" has been entered in the index column labeled "ENCLOSED" and no information is provided in the response for that licensee.

3. If a licensee initiated change does not apply, "NA" has been entered in the index column labeled "ENCLOSED" and no information is provided in the response for that licensee.

4. The common portions of the "Additional Information Cover Sheets" are identical, except for brackets, where applicable (using the same methodology used in enclosures 3A, 3B, 4, 6A and 6B of the conversion submittals). The list of attached pages will vary to match the licensee specific conversion submittals. A licensee's FLOG response may not address all applicable plants if there is insufficient similarity in the plant specific responses to justify their inclusion in each submittal. In those cases, the response will be prefaced with a heading such as "PLANT SPECIFIC DISCUSSION."

5. Changes are indicated using the redline/strikeout tool of WordPerfect or by using a hand markup that indicates insertions and deletions. If the area being revised is not clear, the affected portion of the page is circled. The markup techniques vary as necessary, based on the specifics of the area being changed and the complexity of the changes, to provide the clearest possible indication of the changes.

6. A marginal note (the Additional Information Number from the index) is added in the right margin of each page being changed, adjacent to the area being changed, to identify the source of each change.

7. Some changes are not applicable to one licensee but still require changes to the Tables provided in Enclosures 3A, 3B, 4, 6A, and 6B of the original license amendment request to reflect the changes being made by one or more of the other licensees. These changes are not included in the additional information for the licensee to which the change does not apply, as the changes are only for consistency, do not technically affect the request for that licensee, and are being provided in the additional information being provided by the licensees for which the change is applicable. The complete set of changes for the license amendment request will be provided in a licensing amendment request supplement to be provided later.

8. The item numbers are formatted as follows:

   [Source] [ITS Section]-[nnn]

   Source = Q - NRC Question
   CA - AmerenUE
   DC - PG&E
   WC - WCNOC
   CP - TU Electric
   TR - Traveler

   ITS Section = The ITS section associated with the item (e.g., 3.3). If all sections are potentially impacted by a broad change or set of changes, "ALL" is used for the section number.

   nnn = a three digit sequential number

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q3.0.G-1 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS 3.0.x Bases

General

There have been a number of instances that the specific changes to the STS Bases are not properly identified with redline or strikeout marks.

Comment: Perform an audit of all STS Bases markups and identify instances where additions and/or deletions of Bases were not properly identified in the original submittal.

FLOG RESPONSE: The submitted ITS Bases markups for Section 3.0 have been compared to the STS Bases. Some differences that were identified were in accordance with the markup methodologies (e:g., deletion of brackets and reviewer's notes). Most of the differences were editorial in nature and would not have affected the review. Examples of editorial changes are:

1) Capitalizing a letter with only a "redline" but not striking out the lower case letter that it replaced.
2) Changing a verb from singular to plural by adding an "s" without "redlining" the "s."
3) Deleting instead of striking-out the A, B, C, etc., following a specification title (e.g., SR3.6.6A.7).
4) Changing a bracketed reference (in the reference section) with only a "redline" for the new reference but failing to include the strike-out of the old reference.
5) In some instances, the brackets were retained (and struck-out) but the unchanged text within the brackets was not redlined.
6) Not redlining a title of a bracketed section. The methodology calls for the section title to be redlined when an entire section was bracketed.
7) Additional text not contained in the STS Bases was added to the ITS Bases by the lead FLOG member during the development of the submittal. Once it was determined to not be applicable, the text was then struck-out and remains in the ITS Bases mark-up.

Differences of the above editorial nature will not be provided as attachments to this response. The pages requiring changes that are more than editorial and are not consistent with the markup methodology are attached.

ATTACHED PAGES:

Encl 5B B 3.0-5 and B 3.0-6

BASES

LCO 3.0.4 (Continued)

a. Unit conditions are such that the requirements of the LCO would not be met in the Applicability desired to be entered: and

b. Continued noncompliance with the LCO requirements, if the Applicability were entered, would result in the unit being required to exit the Applicability desired to be entered to comply with the Required Actions.

Compliance with Required Actions that permit continued operation of the unit for an unlimited period of time in a MODE or other specified condition provides an acceptable level of safety for continued operation. This is without regard to the status of the unit before or after the MODE change. Therefore, in such cases, entry into a MODE or other specified condition in the Applicability may be made in accordance with the provisions of the Required Actions. The provisions of this Specification should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to OPERABLE status before entering an associated MODE or other specified condition in the Applicability.

The provisions of LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS. In addition, the provisions of LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from any unit shutdown.

Exceptions to LCO 3.0.4 are stated in the individual Specifications. These exceptions allow entry into MODES or other specified conditions in the Applicability when the associated ACTIONS to be entered do not provide for continued operation for an unlimited period of time. Exceptions may apply to all the ACTIONS or to a specific Required Action of a Specification.

or 5 or 4 or 5 Q3.0.G-1

LCO 3.0.4 is only applicable when entering MODE 4 from MODE 5, MODE 3 from MODE 4, MODE 2 from MODE 3, or MODE 1 from ~~LCO 3.0.4~~ MODE 2. Furthermore, LCO 3.0.4 is applicable when entering any other specified condition in the Applicability only while operating in MODES 1, 2, 3, or 4. The requirements of LCO 3.0.4 do not apply in MODES 5 and 6, or in other specified conditions of the Applicability (unless in MODES 1, 2, 3, or 4) because the ACTIONS of individual Specifications sufficiently define the remedial measures to be taken. In some cases (e.g., where a review has concluded that specific restriction on MODE changes should be included) these ACTIONS provide a Note that states "While this LCO is not met, entry into a MODE or other specified condition

4 5 5 6

(Continued)

remove red-line

BASES 03.0.G-1

LCO 3.0.4 (Continued)

in the Applicability is not permitted, unless required to comply with ACTIONS." This Note is a requirement explicitly precluding entry into a MODE or other specified condition of the Applicability.] Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 3.0.1. Therefore, changing MODES or other specified conditions while in an ACTIONS Condition, in compliance with LCO 3.0.4 or where an exception to LCO 3.0.4 is stated, is not a violation of SR 3.0.1 or SR 3.0.4 for those Surveillances that do not have to be performed due to the associated inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

LCO 3.0.5

LCO 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with ACTIONS. The sole purpose of this Specification is to provide an exception to LCO 3.0.2 (e.g., to not comply with the applicable Required Action(s) to allow the performance of ~~SRs~~ required testing to demonstrate:

a. The OPERABILITY of the equipment being returned to service; or

b. The OPERABILITY of other equipment.

The administrative controls ensure the time the equipment is returned to service in conflict with the requirements of the ACTIONS is limited to the time absolutely necessary to perform the ~~allowed SRs~~ required testing to demonstrate OPERABILITY. This Specification does not provide time to perform any other preventive or corrective maintenance.

An example of demonstrating the OPERABILITY of the equipment being returned to service is reopening a containment isolation valve that has been closed to comply with Required Actions and must be reopened to perform the ~~SRs~~ required testing.

An example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to prevent the trip function from occurring during the performance of ~~an SR~~ required testing on another channel in the other trip system. A similar example of demonstrating the OPERABILITY of other equipment is taking

(Continued)

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.0-1 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS SR 3.0.3
CTS SR 4.0.3 (All FLOG Plants)
DOC 1-20-A

Comment: The CTS Markups of CTS SR 4.0.3 for all FLOG plants do not accurately reflect the ITS end product, SR 3.0.3 (ITS 3.0.3 is compatible with the STS and acceptable). Correct CTS Markup, or revise ITS Markup and provide justification.

FLOG RESPONSE: The markups for CTS SR 4.0.3 and CTS SR 4.0.1 have been revised to be consistent with ITS SR 3.0.3 and ITS SR 3.0.1.

The CTS markups have been revised to reflect moving CTS SR 4.0.3 phrases into CTS SR 4.0.1 and DOC 1-20-A revised to state: "Editorial changes to CTS SR 4.0.1 are made for consistency with NUREG-1431 SR 3.0.1. The CTS SR 4.0.3 phrase "Failure to perform a Surveillance Requirement ... for a Limiting Condition of Operation." was moved to CTS SR 4.0.1 (ITS SR 3.0.1) to establish the relationship between Surveillance Requirements and meeting the requirements of the LCO. In addition, the words "except as provided in Specification 4.0.3" are added at the end of the moved sentence to retain the exception provided by the CTS mark-up of SR 4.0.3. The CTS SR 4.0.3 phrase "Surveillance Requirements do not have to be performed on inoperable equipment." was moved to CTS SR 4.0.1 (ITS SR 3.0.1) to establish the relationship between Surveillance requirements and meeting the requirements of the LCO. This phrase has also been modified to include variables not within limits since Specifications cover more than equipment (e.g., containment pressure)."

CTS SR 4.0.3 is revised to specify required actions whenever the Surveillance Requirement fails or whenever the delay period is exceeded. DOC 1-08-LS and NSHC LS-4 have been modified to specifically address this change by adding the following words: "The CTS has been revised to add the phrases "If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered." and "When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered." to clarify the delay period."

ATTACHED PAGES:

Encl 2	3/4 0-2
Encl 3A	3 and 4
Encl 3B	3
Encl 4	20

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Q3.0-1 Insert 1-20-A

4.0.2 Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

For Frequencies specified as "once," the above interval extension does not apply. 01-07-LS3

If a Completion Time requires periodic performance on a "once per . . ." basis, the above Frequency extension applies to each performance after the initial performance.

Exceptions to this requirement are stated in the individual specifications. Q3.0-1 01-19-A

4.0.3 ~~Failure to perform a Surveillance Requirement within the allowed surveillance interval defined by Specification 4.0.2 shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation.~~ 1-20-A ~~The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours.~~ If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed from the time of discovery, for up to 24 hours or up to the limit of the specified Frequency, whichever is less. This delay period is permitted to allow performance of the Surveillance. ~~Exceptions to these requirements are stated in the individual specifications.~~ If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered. When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered. 01-08-LS4

Surveillances ~~Requirements~~ do not have to be performed on inoperable equipment or variables outside specified limits. 01-20-A

4.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation has been performed within the stated surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements or that are part of a shutdown of the unit. 01-09-LS1

SR 4.0.4 is only applicable for entry into a MODE or other specified Condition in the APPLICABILITY in MODES 1, 2, 3, and 4. 01-09-LS1

4.0.5 Surveillance Requirements for inservice ~~inspection and~~ testing of ASME Code Class 1, 2 and 3 components shall be applicable as follows:

~~a. Inservice inspection of ASME Code Class 1, 2 and 3 components and inservice testing of ASME Code Class 1, 2 and 3 pumps, valves,~~ 01-11-LG

01-10-A

Insert for Q3.0-1

Enclosure 2 - page 3/4 0-2

Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2, shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation except as provided in specification 4.0.3. Surveillance Requirements do not have to be performed on inoperable equipment or variables outside specified limits.

CHANGE NUMBER	NSHC	DESCRIPTION
01-07	LS3	CTS SR 4.0.2 is being changed in conformance with NUREG-1431 to apply the 25 percent extension to the Completion Times of repetitive Required Actions. This is a relaxation because it has been previously interpreted that the extension of SR 4.0.2 did not apply within ACTION statements. This change is considered acceptable as the current practice of performing the initial Required Action does not allow extension. Therefore, no loss of safety function is demonstrated within the required Completion Time. Following the initial performance, repetitive Required Actions are specifically delineated as SRs and as such it is appropriate for reasons of scheduling and plant Conditions that the 25 percent extension be allowable. As is the case with SRs, the extension is not intended to be used repeatedly merely as an operational convenience to extend periodic Completion Times beyond those specified.
01-08	LS4	CTS SR 4.0.3 is being changed with respect to the allowance for performing a missed surveillance upon discovery. This change is in conformance to NUREG-1431. The CTS allows the ACTION requirements to be delayed for up to 24 hours for completion of the surveillance when the allowed outage time (AOT) limits of the ACTION requirements are less than 24 hours after declaring the equipment inoperable, from the point of discovery. The proposed NUREG-1431 specification does not require the equipment to be declared inoperable and allows the lesser of 24 hours or the specified frequency for performance of the surveillance. The allowance to not declare the equipment inoperable upon discovery of a missed surveillance is a relaxation in that ACTIONS for inoperable equipment are not entered solely due to a missed surveillance. The change in time to perform the surveillance could either be a relaxation or restriction based on whether the surveillance frequency or the AOT was more restrictive. The new requirement is based on time to perform a surveillance, and is therefore more consistent. The change still restricts performance of the surveillance to within 24 hours of discovery and is seen as acceptable, from the perspective of safety, as equipment is normally demonstrated OPERABLE, not inoperable via surveillance performance. Insert Q3.0-1
01-09	LS1	CTS SR 4.0.4 was previously applicable for entry into all MODES. The specification has been revised to not prevent unit shutdown and will apply only to entry into MODES 1, 2, 3, and 4 from lower MODES. This change is less restrictive in that it will allow MODE changes in either direction into MODES 5 and 6 prior to the performance of SRs. As required in the "Reviewer's Note" of NUREG-1431, SR 3.0.4, a matrix is provided (see LS1) which documents the plant-specific review of all specifications for determination of where specific restrictions on MODE changes or Required Actions should be included in individual LCOs. The change is acceptable for those specifications for which specific restrictions were not deemed warranted.

Insert for Q3.0-1

Enclosure 3A - page 3

Insert for DOC 1-08-LS4:

The CTS has been revised to add the phrases "If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered." and "When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered." to clarify the delay period.

CHANGE NUMBER	NSHC	DESCRIPTION
01-10	A	TS 4.0.5, the SR for inservice testing, is moved to the ITS Administrative Controls Section 5.5.8 consistent with NUREG-1431. The reference to 10CFR50.55a is unnecessary and has been deleted.
01-11	LG	The portions of CTS 4.0.5 concerning inservice inspection (ISI) are moved to the ISI Program Plan. The requirements of 10CFR50.55a are adequate and TS are not necessary.
01-12	A	Consistent with NUREG-1431 Inservice Testing Program, ITS 5.5.8, the CTS is clarified to address the Inservice Testing (IST) Frequency (in days) for biennial requirements which was previously inferred but not explicitly stated in the CTS.
01-13	A	This change adds Applicability of CTS SR 4.0.3 (SR 3.0.3 in the ITS) for inservice testing for consistency with the wording in NUREG-1431. In NUREG-1431, inservice testing is moved to the Programs and Manuals Section (ITS 5.5.8) and is no longer a SR. Thus, an explicit statement that ITS SR 3.0.3 (CTS SR 4.0.3) was applicable to inservice testing was necessary to provide for the performance of missed IST requirements. CTS SR 4.0.5 (IST) is already an SR, and thus by definition, CTS SR 4.0.3 applies.
01-14	A	Not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparison Table (Enclosure 3B).
01-15	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-16	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-17	A	Consistent with the wording used in NUREG-1431, Section 5.5.8, CTS SR [4.0.5d] concerning performance of IST being performed in addition to other specified SRs, is deleted. The statement is redundant to the usage rules and is not necessary.
01-18	LS5	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-19	A	The phrase "Exceptions to this Specification are stated in the individual specifications" was added to CTS 4.0.2 to provide exceptions in individual frequencies where the allowances provided in CTS 4.0.2 are not allowed. This additional wording will have no impact on current practice regarding compliance with SRs. [The statement in CTS 4.0.3, "Exceptions to these requirements are stated in the individual specifications" is deleted in accordance with NUREG-1431.]
01-20	A	~~Consistent with NUREG-1431, the phrase "or variables outside specified limits" is added to the statement that surveillances do not have to be performed on inoperable equipment. This is not a technical change in that "variables outside specified limits" is now explicitly stated in the ITS; whereas, in the CTS, it was implicit in the definition of inoperable equipment.~~ Insert Q3.0-1
01-21	A	Insert Q3.0-5

Enclosure 3A - page 4

Insert for DOC 1-20-A:

Editorial changes to CTS SR 4.0.1 are made for consistency with NUREG-1431 SR 3.0.1. The CTS SR 4.0.3 phrase "Failure to perform a Surveillance Requirement ... for a Limiting Condition of Operation." was moved to CTS SR 4.0.1 (ITS SR 3.0.1) to establish the relationship between Surveillance Requirements and meeting the requirements of the LCO. In addition, the words "except as provided in Specification 4.0.3" are added at the end of the moved sentence to retain the exception provided by the CTS mark-up of SR 4.0.3. The CTS SR 4.0.3 phrase "Surveillance Requirements do not have to be performed on inoperable equipment." was moved to CTS SR 4.0.1 (ITS SR 3.0.1) to establish the relationship between Surveillance requirements and meeting the requirements of the LCO. This phrase has also been modified to include variables no within limits since Specifications cover more than equipment (e.g., containment pressure).

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-19 A	The phrase "Exceptions to this Specification are stated in the individual specifications" was added to CTS SR 4.0.2 to provide exceptions in individual Frequencies where the allowances provided in SR 4.0.2 are not allowed. [The statement in CTS 4.0.3, "Exceptions to these requirements are stated in the individual specifications" is deleted in accordance with NUREG-1431.]	Yes	No, already in CTS.	Yes	Yes
01-20 A	~~This phrase "or variables outside specified limits" is added to the statement that surveillances do not have to be performed on inoperable equipment.~~ Editorial changes to CTS SR 4.0.1 are made consistent with NUREG-1431 SR 3.0.1.	Yes	Yes	Yes	Yes Q3.0-1
01-21 A	The requirement to meet ACTIONS if LCO is not met is moved from LCO 3.0.1 to 3.0.2.	Yes	Yes	NO- See 1-01-A	NO-See 1-01-A Q3.0-5

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS4

10CFR50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE REQUIREMENTS
WITHIN THE TECHNICAL SPECIFICATIONS

This ~~proposed~~ change is administrative in nature as ~~revises~~ the time allowed to perform a missed surveillance to upon discovery is changed from up to 24 hours. When the AOT limits of the ACTION requirements are less than 24 hours, ~~the AOT may be~~ the lesser of 24 hours or the surveillance frequency interval. Additionally, the equipment is not required to be declared inoperable at the time of discovery of a missed surveillance. This prevents unnecessary entry into Conditions based solely on equipment inoperabilities when the equipment is anticipated to be demonstrated OPERABLE by surveillance performance. The change is acceptable because it still restricts performance of the surveillance to within 24 hours of discovery and the equipment is normally demonstrated to be OPERABLE, not inoperable, by performance of the surveillance. Insert Φ3.0-1

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 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?

   Surveillance performance is nominally considered to demonstrate equipment OPERABILITY. Therefore, identifying that a surveillance has been missed usually does not result in any true inoperabilities existing as the equipment is normally demonstrated OPERABLE upon performance of the missed surveillance. This change potentially allows a longer time in some instances for performance of the surveillance from time of discovery that the surveillance was missed. In these cases, if the equipment were truly inoperable, there would be an extended duration in which the appropriate Required ACTIONS were not taken. Not taking the Required ACTIONS could have a negative effect on the probability or consequences of an accident. However, at no time will this period exceed 24 hours. Based on the short duration, a minimal impact if any, would be expected to overall plant safety. Therefore, this proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Enclosure 4 - page 20

The CTS has been revised to add the phrases "If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered." and "When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered." to clarify the delay period.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.0-3 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS LCO 3.0.5 Bases (All FLOG Plants)

Comment: The STS Bases has been revised to address "the performance of required testing" versus the "performance of SRs," to be consistent with the TS. Submit a TSTF to revise the STS. Suggest that the first instance this wording is to be revised to state, "the performance of required testing including applicable SRs," since testing to restore equipment to an operable state will frequently include the performance of SRs.

FLOG RESPONSE: The ITS LCO 3.0.5 Bases were revised consistent with traveler TSTF-165. The latest status report from the TSTF industry database, dated July 27, 1998, indicates that the NRC has approved TSTF-165. The FLOG continues to pursue the changes approved in TSTF-165.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.0-4 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS SR 3.0.2 Bases (All FLOG Plants)

Comment: Justify the revised STS SR 3.0.2 Bases. The STS provides an explanation for the inapplicability; the ITS does not.

FLOG RESPONSE: The ITS SR 3.0.2 Bases were revised based on traveler TSTF-52. Comment Number 3.6.1-6 for Section 3.6, "Containment Systems," concerned the revision of the submittal to conform to the 11/2/95 letter from C. Grimes (NRC) to D. Modeen (NEI) and TSTF-52 as modified by the NRC staff. In the FLOG response to Comment Number 3.6.1-6, it was identified that the ITS Bases were revised to incorporate proposed Rev. 1 of TSTF-52. The FLOG response provided changes to the ITS SR 3.0.2 Bases based on incorporating proposed Rev. 1 of TSTF-52.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.0-5 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS LCO 3.0.1 & 3.0.2
CTS 3.0.1 & 3.0.2 (All FLOG Plants)
DOC 1-01-A

Comment: The markup of CTS 3.0.1 and 3.0.2 do not agree with the markup of STS LCO 3.0.1 and LCO 3.0.2. The markup of STS LCO 3.0.1 and 3.0.2 are correct. Revise the CTS markup.

FLOG RESPONSE: The FLOG has re-examined the CTS markups for LCO 3.0.1 and 3.0.2. The ITS requirements are contained in the CTS markups but may not have been aligned with the same LCOs as in the ITS.

Comanche Peak and Diablo Canyon have modified their CTS markups for LCOs 3.0.1 and 3.0.2 to line up the requirements with their corresponding ITS LCOs. DOC 1-21-A has been drawn to describe the modification. The CTS markups for Callaway and Wolf Creek are already lined up with the ITS and no additional modifications are required.

ATTACHED PAGES:

Encl 2	3/4 0-1 and 3/4 0-1a
Encl 3A:	4
Encl 3B:	3

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; ~~except that~~ upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met, except as provided in LCO 3.0.2 and LCO 3.0.7. 01-01-A 01-21-A Q3.0-5

3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals, except as provided in LCO 3.0.5 and LCO 3.0.6. If the Limiting Condition for Operation is restored or is no longer applicable prior to expiration of the specified time intervals, completion of the ACTION requirements is not required unless otherwise stated. 01-01-A

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

a. At least HOT STANDBY within the next 6 hours,
b. At least HOT SHUTDOWN within the following 6 hours, and
c. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the action may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions of these requirements are stated in the individual specifications.

This specification is not applicable in MODE 5 or 6.

3.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made when the conditions for the Limiting Conditions for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION statements or that are part of a shutdown of the unit. Exceptions to these requirements are stated in the individual specifications. 01-02-LS1

LCO 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODE 1, 2, 3, and 4. 01-02-LS1

LIMITING CONDITION FOR OPERATION

~~3.0.5 Limiting Conditions for Operation including the associated ACTION requirements shall apply to each unit individually unless otherwise indicated as follows:~~

~~a. Whenever the Limiting Conditions for Operation refers to systems or components which are shared by both units, the ACTION requirements will apply to both units simultaneously. This will be indicated in the ACTION section;~~ 01-03-A

~~b. Whenever the Limiting Conditions for Operation applies to only one unit, this will be identified in the APPLICABILITY section of the specification; and~~

~~c. Whenever certain portions of a specification contain operating parameters, Setpoints, etc., which are different for each unit, this will be identified in parentheses, footnotes or body of the requirement.~~ Q3.0-5

3.0.5 ~~(new)~~ Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY. 01-04-LS2

Q3.0-5

3.0.6 ~~(new)~~ When a supported system LCO is not met solely due to a support system LCO not being met, the Conditions and Required Actions associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for supported system. In this event, an evaluation shall be performed in accordance with Specification 5.5.15, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered. 01-05-M

When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

Q3.0-5

3.0.7 ~~(new)~~ ITS Test Exception LCO 3.1.8 allows specified Technical Specification (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with Test Exception LCOs is optional. When a Test Exception LCO is desired to be met but is not met, the ACTIONS of the Test Exception LCO shall be met. When a Test Exception LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall be made in accordance with the other applicable Specifications. 01-06-A

CHANGE NUMBER	NSHC	DESCRIPTION
01-10	A	TS 4.0.5, the SR for inservice testing, is moved to the ITS Administrative Controls Section 5.5.8 consistent with NUREG-1431. The reference to 10CFR50.55a is unnecessary and has been deleted.
01-11	LG	The portions of CTS 4.0.5 concerning inservice inspection (ISI) are moved to the ISI Program Plan. The requirements of 10CFR50.55a are adequate and TS are not necessary.
01-12	A	Consistent with NUREG-1431 Inservice Testing Program, ITS 5.5.8, the CTS is clarified to address the Inservice Testing (IST) Frequency (in days) for biennial requirements which was previously inferred but not explicitly stated in the CTS.
01-13	A	This change adds Applicability of CTS SR 4.0.3 (SR 3.0.3 in the ITS) for inservice testing for consistency with the wording in NUREG-1431. In NUREG-1431, inservice testing is moved to the Programs and Manuals Section (ITS 5.5.8) and is no longer a SR. Thus, an explicit statement that ITS SR 3.0.3 (CTS SR 4.0.3) was applicable to inservice testing was necessary to provide for the performance of missed IST requirements. CTS SR 4.0.5 (IST) is already an SR, and thus by definition, CTS SR 4.0.3 applies.
01-14	A	Not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparison Table (Enclosure 3B).
01-15	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-16	A	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-17	A	Consistent with the wording used in NUREG-1431, Section 5.5.8, CTS SR [4.0.5d] concerning performance of IST being performed in addition to other specified SRs, is deleted. The statement is redundant to the usage rules and is not necessary.
01-18	LS5	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
01-19	A	The phrase "Exceptions to this Specification are stated in the individual specifications" was added to CTS 4.0.2 to provide exceptions in individual frequencies where the allowances provided in CTS 4.0.2 are not allowed. This additional wording will have no impact on current practice regarding compliance with SRs. [The statement in CTS 4.0.3, "Exceptions to these requirements are stated in the individual specifications" is deleted in accordance with NUREG-1431.]
01-20	A	~~Consistent with NUREG-1431, the phrase "or variables outside specified limits" is added to the statement that surveillances do not have to be performed on inoperable equipment. This is not a technical change in that "variables outside specified limits" is now explicitly stated in the ITS; whereas, in the CTS, it was implicit in the definition of inoperable equipment.~~ Insert Q3.0-1
01-21	A	Insert Q3.0-5

Enclosure 3A - page 4

Insert for DOC 1-21-A:

The requirement that upon failure to meet an LCO, the associated ACTION requirements shall be met, is moved from LCO 3.0.1 to LCO 3.0.2 to be consistent with the STS organization of these requirements.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-19 A	The phrase "Exceptions to this Specification are stated in the individual specifications" was added to CTS SR 4.0.2 to provide exceptions in individual Frequencies where the allowances provided in SR 4.0.2 are not allowed. [The statement in CTS 4.0.3, "Exceptions to these requirements are stated in the individual specifications" is deleted in accordance with NUREG-1431.]	Yes	No, already in CTS.	Yes	Yes
01-20 A	~~This phrase "or variables outside specified limits" is added to the statement that surveillances do not have to be performed on inoperable equipment.~~ Editorial changes to CTS SR 4.0.1 are made consistent with NUREG-1431 SR 3.0.1.	Yes	Yes	Yes	Yes Q3.0-1
01-21 A	The requirement to meet ACTIONS if LCO is not met is moved from LCO 3.0.1 to 3.0.2.	Yes	Yes	No- See 1-01-A	No-See 1-01-A Q3.0-5

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.0-6 **APPLICABILITY:** CA, CP, DC, WC

REQUEST:

ITS LCO 3.0.4
CTS 3.0.4 (All FLOG Plants)
DOC 1-02-LS1

Comment: The markup of CTS 3.0.4 does not agree with the markup of STS LCO 3.0.4. The markup of STS LCO 3.0.4 is correct. Revise the CTS markup.

FLOG RESPONSE: The FLOG has re-examined the CTS markups for LCO 3.0.4. The actual markup vary slightly although the Comanche Peak markup is essentially identical to the Diablo Canyon markup, and the Wolf Creek markup is essentially identical to the Callaway markups. All four markup were found to mean the same and all four markups were found to be consistent with the ITS. The mark-up is slightly different but the meaning is identical.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.0-7 **APPLICABILITY:** DC

REQUEST:

ITS LCO 3.0.4 Bases (Diablo Canyon)

Comment: The redline/strikeout markup of the STS LCO 3.0.4 Bases is incorrect. Correct the markup of the STS LCO 3.0.4 Bases.

FLOG RESPONSE: See response to General Comment Number 3.0.G-1.

ATTACHED PAGES:

See attached pages for response to General Comment Number 3.0.G-1.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: TR 3.0-001 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

Incorporate NRC-approved traveler TSTF-122 to eliminate confusion in the ITS LCO 3.0.2 Bases that discuss inoperability of redundant equipment.

ATTACHED PAGES:

Encl 5A	Traveler Status page
Encl 5B	B 3.0-2

Industry Travelers Applicable to Section 3.0

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-06, Rev 1	Incorporated	3.0-01	Approved by NRC.
TSTF-08, Rev 2	Incorporated	N/A	Approved by NRC. DC3.0-ED
TSTF-12, Rev 1	Incorporated	3.0-02	Approved by NRC.
TSTF-52.	Incorporated	N/A	Incorporated Draft Rev. 1 per Q3.6.1-6 Q3.6.1-6
TSTF-71, Rev. 2	Not Incorporated	N/A	Will be addressed in SFDP. TR 3.0-002
~~TSTF-103~~	~~Not Incorporated~~	~~N/A~~	~~Performed 3.0.4 Matrix.~~
TSTF-104	Incorporated	3.0-03	Approved by NRC. TR 3.0-002
TSTF-122	~~Not~~ Incorporated	N/A TR 3.0-001	~~Not NRC approved as of the Traveler cutoff date.~~ Approved by NRC.
TSTF-136	Incorporated	3.0-02	Approved by NRC.
TSTF-165	Incorporated	N/A	~~LCO 3.0.5 Bases change only.~~ Approved by NRC.
TSTF-166	Incorporated	3.0-04	Approved by NRC. TR 3.0-001

BASES

LCO 3.0.2 (Continued)

Completing the Required Actions is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.

The nature of some Required Actions of some Conditions necessitates that, once the Condition is entered, the Required Actions must be completed even though the associated Conditions no longer exist. The individual LCO's ACTIONS specify the Required Actions where this is the case. An example of this is in LCO 3.4.3, "RCS Pressure and Temperature (P/T) Limits."

The Completion Times of the Required Actions are also applicable when a system or component is removed from service intentionally. The reasons for intentionally relying on the ACTIONS include, but are not limited to, performance of Surveillances, preventive maintenance, corrective maintenance, or investigation of operational problems. Entering ACTIONS for these reasons must be done in a manner that does not compromise safety. Intentional entry into ACTIONS should not be made for operational convenience. ~~Alternatives~~ ~~that~~ would ~~not~~ result in redundant equipment being inoperable should be used instead. Doing so limits the time both subsystems/trains of a safety function are inoperable and limits the time ~~other~~ conditions exist which result in may LCO 3.0.3 being entered. Individual Specifications may specify a time limit for performing an SR when equipment is removed from service or bypassed for testing. In this case, the Completion Times of the Required Actions are applicable when this time limit expires, if the equipment remains removed from service or bypassed.

Additionally, if intentional entry into ACTIONS

, alternatives

TR3.0-001

When a change in MODE or other specified condition is required to comply with Required Actions, the unit may enter a MODE or other specified condition in which another Specification becomes applicable. In this case, the Completion Times of the associated Required Actions would apply from the point in time that the new Specification becomes applicable, and the ACTIONS Condition(s) are entered.

LCO 3.0.3

LCO 3.0.3 establishes the actions that must be implemented when an LCO is not met an

a. An associated Required Action and Completion Time is not met and no other Condition applies; or

(Continued)

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: TR 3.0-002 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

Revise Traveler Status page to reflect NRC approval and latest revision number of travelers TSTF-71 Rev. 2, TSTF-136, TSTF-165, and TSTF-166. Deleted TSTF-103 from the Traveler Status pages as this traveler has been rejected by the NRC and accepted by the TSTF. There are no changes involved to any CTS mark-ups, ITS mark-ups, DOCs, or JFDs.

ATTACHED PAGES:

Encl 5A Traveler Status page

Industry Travelers Applicable to Section 3.0

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-06, Rev 1	Incorporated	3.0-01	Approved by NRC.
TSTF-08, Rev 2	Incorporated	N/A	Approved by NRC. DC 3.0-ED
TSTF-12, Rev 1	Incorporated	3.0-02	Approved by NRC.
TSTF-52	Incorporated	N/A	Incorporated Draft Rev. 1 per Q3.6.1-6 Q3.6.1-6
TSTF-71, Rev. 2	Not Incorporated	N/A	Will be addressed in SFDP. TR 3.0-002
~~TSTF-103~~	~~Not Incorporated~~	~~N/A~~	~~Performed 3.0.4 Matrix.~~
TSTF-104	Incorporated	3.0-03	Approved by NRC. TR 3.0-002
TSTF-122	~~Not~~ Incorporated	N/A TR 3.0-001	~~Not NRC approved as of the Traveler cutoff date.~~
TSTF-136	Incorporated	3.0-02	Approved by NRC.
TSTF-165	Incorporated	N/A	~~LCO 3.0.5 Bases change only.~~ Approved by NRC.
TSTF-166	Incorporated	3.0-04	Approved by NRC.

TR 3.0-001

Approved by NRC.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC 3.0-001 **APPLICABILITY:** DC

REQUEST:

LCO 3.0.4 matrix was prepared as part of the NSHC LS-1 in Enclosure 4. The LCO 3.0.4 matrix was not previously issued in the DCPP ITS conversion submittal (DCL-97-106) and thus, is provided now.

ATTACHED PAGES:

Encl 4 Attachment to LS-1 - LCO 3.0.4 evaluation and matrix

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.1.1 Shutdown Margin	Mode 2 ($k_{eff} \geq 1$) → Mode 2 ($k_{eff} < 1$)	No	No	When $k_{eff} \geq 1$, SDM is maintained by LCO 3.1.5 and 3.1.6 which require entry into Mode 3 if rod insertion limits not met. This requires transition through Mode 2 with $k_{eff} < 1$ (see NOTE 3b[1]).
	Mode 1 → Mode 3 Mode 2 → Mode 3	No	No	When $k_{eff} \geq 1$, SDM is maintained by LCO 3.1.5 and 3.1.6 which require entry into Mode 3 if rod insertion limits not met (see NOTE 3b).
	Mode 3 → Mode 4 Mode 4 → Mode 5	Yes	No	These Mode changes involve temperature reductions which may increase reactivity; however, these reactivity changes are slow in comparison to the addition of negative reactivity resulting from the Required Action to initiate boration to restore SDM. Therefore, the Required Action to initiate boration within 15 minutes provides adequate protection and no Note is necessary.
	Mode 6 → Mode 5	Yes	Yes	Entering Mode 5 without SDM limits met implies that boron concentration in Mode 6 is not met. Under these conditions, a transition to Mode 5 should not be attempted until Mode 5 SDM limits are met. A Note is added.
3.1.2 Core Reactivity	Mode 1 → Mode 2	No	No	Actions would require transition to Mode 3 if LCO not met (see NOTE 1). If re-evaluation of core design is acceptable, continued operation is allowed (see NOTE 3a).
3.1.3 Moderator Temperature Coefficient	Mode 1 → Mode 2 ($k_{eff} \geq 1$)	No	No	Condition A and B: If upper limit MTC not met shutdown to Mode 2 ($k_{eff} < 1$) is required (see NOTE 1). If administrative withdrawal limits established, continued operation is allowed (see NOTE 3a).
3.1.3 Moderator Temperature Coefficient	Mode 2 → Mode 3	No	No	Condition C: If lower limit MTC not met shutdown to Mode 4 is required (see NOTE 1).
3.1.4 Rod Group Alignment Limits	Mode 1 → Mode 2	No	No	Condition A, C, and D: If these conditions exist, shutdown to Mode 3 is required (see NOTE 1). Condition B: This condition would allow continued operation with restrictions (see NOTE 3a).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.1.5 Shutdown Bank Insertion Limits	Mode 1 → Mode 2	No	No	If LCO not met, a shutdown to Mode 3 is required (see NOTE 1).
3.1.6 Control Bank Insertion Limits	Mode 1 → Mode 2	No	No	If LCO not met, a shutdown to Mode 3 is required (see NOTE 1).
3.1.7 Rod Position Indication	Mode 1 → Mode 2	No	No	Condition A, B, C, and D: These conditions would allow continued operation with restrictions (see NOTE 3a). Condition E: If Required Actions/Completion Times not met, this condition requires shutdown to Mode 3 (see NOTE 1).
3.1.8 Physics Tests Exceptions - Mode 2	→ During Physics Tests	No	No	The LCO requires that specified conditions be met prior to entry into Physics Tests. This is a current 3.0.4 requirement.
3.2.1 Heat Flux Hot Channel Factor ($F_Q(Z)$)	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.2.2 Nuclear Enthalpy Rise Hot Channel Factor ($F^N_{\Delta H}$)	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.2.3 Axial Flux Difference	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.2.4 Quadrant Power Tilt Ratio	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.3.1 Reactor Trip System (RTS) Instrumentation Function 1	Mode 1 → Mode 2	No	No	Condition B: This requires shutdown to Mode 3 (see NOTE 1).
	Mode 2 → Mode 3(b)	No	No	Condition C: The Actions require restoration of channels/trains within 48 hours or inserting control rods and rendering the Rod Control System incapable of rod withdrawal. This would force the transition into the new MOSCA (see NOTE 1).
	Mode 3(b) → Mode 4(b) Mode 4(b) → Mode 5(b)	Yes	No	Condition C: The Actions require restoration of channels/trains within 48 hours or inserting control rods and rendering the Rod Control System incapable of rod withdrawal. The Mode changes involve only temperature reduction. SDM in these Modes is maintained by LCO 3.1.1. There is no safety significance in restricting Mode changes with one manual trip function inoperable; therefore, an LCO Note is not needed.
	Mode 5 → Mode 5(b)	Yes	No	Condition C: Operation with all rods not fully inserted or with the rod control system capable of rod withdrawal with one manual trip function inoperable is not safety significant because manual reactor trip is not relied on for mitigating a rod withdrawal event. Thus, no Note need be added to the LCO.
	Mode 6(b) → Mode 5(b)	Yes	No	Condition C: This transition involves tensioning the RV head with all rods not fully inserted or with the rod control system capable of rod withdrawal. The SDM requirements of LCO 3.9.1 apply in Mode 6 and would preclude the need for the RTS function. Therefore, there is no safety significance in restricting this Mode change, and no Note need be added.
3.3.1 Function 2.a	Mode 1 → Mode 2	No	No	Required Action D.1.2 and D.2.2: Continued operation is allowed (see NOTE 3a). Required Action D.3: The alternative would require shutdown to Mode 3 (see NOTE 1).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.3.1 Function 2.b	Mode 1 → Mode 1(c) Mode 1(c) → Mode 2	No	No	Required Action E.1: Continued operation is allowed (see NOTE 3a). Required Action E.2: The alternative would require shutdown to Mode 3 (see NOTE 1).
3.3.1 Function 3.a and 3.b	Mode 1 → Mode 2	No	No	Required Action E.1: Continued operation is allowed (see NOTE 3a). Required Action E.2: The alternative would require shutdown to Mode 3 (see NOTE 1).
3.3.1 Function 4	Mode 1 → Mode 1(c) Mode 1(c) → Mode 2(d)	No	No	Required Actions F.1 and G.2 require transition through the specified conditions (see NOTE 1). Required Action F.2 involves entry into a higher Mode (Mode 1 with power above P-10) and is not applicable to this review.
3.3.1 Function 5	Mode 2(d) → Mode 2(e)	No	No	Condition I: With one SRM inoperable continued operation is allowed (see NOTE 3a). Condition J: With two SRMs inoperable, immediate action must be taken to open the RTBs. This forces the transition (see NOTE 1).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.3.1 Function 5 (cont.)	Mode 2(e) → Mode 3(b)	No	No	Condition J: With two SRMs inoperable, immediate action must be taken to open the RTBs. This forces the transition (see NOTE 1).
		No	No	Condition K: With one SRM channel inoperable, a Completion Time of 49 hours is applied for inserting control rods and rendering the Rod Control System incapable of rod withdrawal. This would force the transition into/through the new MOSCA (see NOTE 1).
	Mode 3(b) → Mode 4(b) Mode 4(b) → Mode 5(b)	Yes	No	Condition J: With two SRMs inoperable, immediate action must be taken to open the RTBs; this would result in immediate exit of the MOSCA. No Note is necessary.
		Yes	No	Condition K: With one SRM channel inoperable, a Completion Time of 49 hours is applied for inserting control rods and rendering the Rod Control System incapable of rod withdrawal. The transitions into these Modes involve only reductions in temperature. SDM is maintained by LCO 3.1.1. There is no safety significance in maintaining the plant at the higher temperature conditions with an inoperable SRM channel.
	Mode 5 → Mode 5(b)	Yes	No	Condition J: With two SRMs inoperable, immediate action must be taken to open the RTBs; this would result in immediate exit of the MOSCA. No Note is necessary.

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.3.1 Function 5 (cont.)	Mode 5 → Mode 5[(b)]	Yes	No	Condition K: With one SRM channel inoperable, a Completion Time of 49 hours is applied for inserting control rods and rendering the Rod Control System incapable of rod withdrawal. This transition would occur with all rods not fully inserted or with the rod control system capable of rod withdrawal. SDM is maintained by other specifications. This is not a significant relaxation because the ITS impose the same Required Actions for Condition K while in Modes 3 and 4. Further transition into higher Modes is precluded by LCO 3.0.4.
	Mode 6[(b)] → Mode 5[(b)]	Yes	No	Condition J: With two SRMs inoperable, immediate action must be taken to open the RTBs; this would result in immediate exit of the MOSCA. No Note is necessary.
		Yes	No	Condition K: This transition involves tensioning the RV head while all rods not fully inserted or with the rod control system capable of rod withdrawal. The SDM requirements of LCO 3.9.1 apply in Mode 6 and would preclude the need for the RTS function. Therefore, there is no safety significance in restricting this Mode change, and no Note need be added.
3.3.1 Function 6	Mode 1 → Mode 2	No	No	Required Action E.1: Continued operation is allowed (see NOTE 3a). Required Action E.2: The alternative would require shutdown to Mode 3 (see NOTE 1).
3.3.1 Function 7	Mode 1 → Mode 2	No	No	Required Action E.1: Continued operation is allowed (see NOTE 3a). Required Action E.2: The alternative would require shutdown to Mode 3 (see NOTE 1).
3.3.1 Function 8.a	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.3.1 Function 8.b	Mode 1 → Mode 2	No	No	Required Action E.1: Continued operation is allowed (see NOTE 3a). Required Action E.2: The alternative would require shutdown to Mode 3 (see NOTE 1).
3.3.1 Function 9	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.3.1 Function 10	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.3.1 Function 11	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.3.1 Function 12	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.3.1 Function 13	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.3.1 Function 14	Mode 1 → Mode 2	No	No	Condition X for Vessel ΔT channels would place channel(s) in trip within 6 hours. Continued operation is allowed (NOTE 3a) or shutdown is required (NOTE 1).
		No	No	SG low-low Required Action E.1: Continued operation is allowed (see NOTE 3a). Required Action E.2: The alternative would require shutdown to Mode 3 (see NOTE 1).
3.3.1 Function 16	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.3.1 Function 17	Mode 1 → Mode 2	No	No	Condition Q: With one train inoperable, this condition requires shutdown to Mode 3 (see NOTE 1).
3.3.1 Function 18.a	Mode $2^{(d)}$ → Mode $2^{(e)}$	No	No	Required Action S.1 would allow continued operation (see NOTE 3a). Required Action S.2 would require achieving Mode 3 as an alternative to S.1 (see NOTE 1).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.3.1 Function 18.b, c, d, f	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.3.1 Function 18.e	Mode 1 → Mode 2	No	No	Required Action S.1 would allow continued operation (see NOTE 3a). Required Action S.2 would require achieving Mode 3 as an alternative to S.1 (see NOTE 1).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.3.1 Functions 19, 20, 21	Mode 1 → Mode 2	No	No	Conditions R, U, and Q require shutdown to Mode 3 (see NOTE 1).
	Mode 2 → Mode 3$^{(b)}$	No	No	Condition C: The Actions require restoration of channels/trains within 48 hours or inserting control rods and rendering the Rod Control System incapable of rod withdrawal. This would force the transition into the new MOSCA (see NOTE 1).
	Mode 3$^{(b)}$ → Mode 4$^{(b)}$ Mode 4$^{(b)}$ → Mode 5$^{(b)}$	Yes	No	Condition C: The Actions require restoration of channels/trains within 48 hours or inserting control rods and rendering the Rod Control System incapable of rod withdrawal. The Mode changes involve only temperature reduction. SDM in these Modes is maintained by LCO 3.1.1. There is no safety significance in restricting Mode changes with these RTS functions inoperable; therefore, an LCO Note is not needed.
	Mode 5 → Mode 5$^{(b)}$	Yes	Yes	Condition C: The transition would occur with all rods not fully inserted or with the rod control system capable of rod withdrawal while the RTS function is degraded. A note restricting the transition should be added.
	Mode 6$^{(b)}$ → Mode 5$^{(b)}$	Yes	No	Condition C: This transition involves tensioning the RV head with all rods not fully inserted or with the rod control system capable of rod withdrawal. The SDM requirements of LCO 3.9.1 apply in Mode 6 and would preclude the need for the RTS function. Therefore, there is no safety significance in restricting this Mode change, and no Note need be added.
3.3.1 Function 22	Mode 1 → Mode 2	No	No	Condition W allows continued operation. (See Note 3a)

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.3.2 Engineered Safety Feature Actuation System (ESFAS) Instrumentation	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	All Conditions except Condition N require either (1) restoration of function or shutdown (see NOTE 1), or (2) verifying channel in appropriate condition (e.g., trip or bypass) with continued operation allowed (see NOTE 3a) or shutdown (see NOTE 1). Condition N: Requires applying the requirements of LCO 3.7.2 or 3.7.5. Applicable MOSCA transitions would be evaluated under that LCO.
3.3.3 Post Accident Monitoring (PAM) Instrumentation	Mode 1 → Mode 2 Mode 2 → Mode 3	No	No	Required Actions have a note that LCO 3.0.4 is not applicable.
3.3.4 Remote Shutdown System	Mode 1 → Mode 2 Mode 2 → Mode 3	No	No	Required Actions have a note that LCO 3.0.4 is not applicable. This note is in CTS, also.
3.3.5 Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4 Mode 4 → Mode 5 Mode 5 → Mode 6 Mode 6 → Mode 5 Defueled → Mode 6	No	No	The Required Actions apply the applicable Condition(s) and Required Action(s) for the DG made inoperable by the LOP DG start instrumentation. Mode change allowances are evaluated in the DG specifications.
3.3.6 Containment Purge and Exhaust Isolation Instrumentation	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4 → Begin CORE ALTS → Begin fuel move	No	No	In Modes 1 through 4, the Required Actions ultimately require purge valve closure (see NOTE 3a). For beginning CORE ALTERATIONS and movement of irradiated fuel in containment, the Required Actions require either closing the valves (see NOTE 3a) or applying LCO 3.9.4. Mode change allowances are evaluated in that specification.

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.3.7 Control Room Ventilation System (CRVS) Actuation Instrumentation	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4 Mode 4 → Mode 5 → Begin fuel move	No	No	Condition A and B allow continued operation by placing the CRVS in the emergency pressurization mode (see NOTE 3a). For failure to meet A or B while in Modes 1 through 4, Condition C requires shutdown to Mode 5 (see NOTE 1). For failure to meet A or B during irradiated fuel movement, Condition D prevents the transition by requiring immediate action to exit the condition of applicability (see NOTE 2).
	Mode 5 → Mode 6 Mode 6 → Mode 5	No	No	Condition A and B allow continued operation by placing the CRVS in the emergency pressurization mode (see NOTE 3a). For failure to meet Conditions A or B in Modes 5 or 6, Condition D allows continued operation with restrictions on CORE ALTERATIONS and moving irradiated fuel (see NOTE 3a).
3.3.8 Fuel Building Ventilation System (FBVS) Actuation Instrumentation	→ Begin fuel move	No	No	Condition A allows continued operation for 30 days by providing alternate monitoring or placing the FBVS in the Iodine Removal mode of operation (see NOTE 2). For failure to meet A during fuel movement in the Fuel Building, Condition C requires immediate action to exit the condition of applicability by suspending movement of irradiated fuel. Therefore, the Required Actions would prevent this transition.
3.4.1 RCS Pressure, Temperature, and Flow Departure from Nucleate Boiling (DNB) Limits	Transition not applicable			This LCO is applicable only in Mode 1. Entry would be from Mode 2 which is covered by new LCO 3.0.4.
3.4.2 RCS Minimum Temperature for Criticality	Mode 1 → Mode 2 ($k_{eff} \geq 1$)	No	No	Required Action is a shutdown to Mode 2 ($k_{eff} < 1$) (see NOTE 1).
3.4.3 RCS Pressure and Temperature (P/T) Limits	Not applicable (Applicability is "At all times")			The Applicability is essentially a single "Other specified condition." There are no other conditions or Modes into which a transition may be made. The CTS Applicability is also "At all times."
3.4.4 RCS Loops - Modes 1 and 2	Mode 1 → Mode 2	No	No	Required Action is a shutdown to Mode 3 (see NOTE 1).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.4.5 RCS Loops - Mode 3	Mode 2 → Mode 3 Mode 1 → Mode 3	No	No	These Mode changes would be required by Required Action of LCO 3.4.4 (see NOTE 3b).
3.4.6 RCS Loops - Mode 4	Mode 3 → Mode 4	No	No	see Note 3b.
3.4.6 RCS Loops - Mode 4	Mode 3 → Mode 4	No	No	Condition B: If one RHR loop operable, the Required Action is to continue shutdown to Mode 5 (see NOTE 1).
		Yes	No	Condition C: The Required Actions to be entered include taking immediate action to suspend operations involving boron reduction in the RCS. Based on this and on SDM limits being maintained (by LCO 3.1.1), this transition which involves only temperature reduction need not be prevented. Therefore, no Note is necessary.
3.4.7 RCS Loops - Mode 5, Loops Filled	Mode 4 → Mode 5 Loops filled	No	No	Condition B of LCO 3.4.6 would require shutdown to Mode 5 (see NOTE 3b).
		Yes	No	Condition B: Transition to Mode 5 with no RHR loops OPERABLE or in operation would be difficult. However, if accomplished, the availability of a heat sink is required. Therefore, the safety impact is insignificant and no Note is required.
	Mode 5 Loops Not Filled → Mode 5 Loops Filled	No	No	Condition A: This transition involves filling RCS with one RHR loop inoperable. The Required Actions include taking immediate action to restore SG water level (see NOTE 1).
		Yes	No	Condition B: This transition involves filling RCS with RHR loops inoperable or not operating. This transition may be beneficial because the SGs would become available for decay heat removal.

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.4.8 RCS Loops - Mode 5, Loops Not Filled	Mode 5 Loops Filled → Mode 5 Loops Not Filled	Yes	Yes	This transition would remove SGs as a heat sink while the RHR system was degraded. A Note should be added.
3.4.8 RCS Loops - Mode 5, Loops Not Filled (cont.)	Mode 6 → Mode 5 Loops Not Filled	Yes	No	This transition would involve draining the refueling cavity/pool for setting the RV head with degraded RHR capability and neither SGs nor refueling pool available as heat sink. A Note is not required because a Note prohibiting a reduction in cavity/pool level will be added to LCO 3.9.6.
3.4.9 Pressurizer	Mode 1 → Mode 2 Mode 2 → Mode 3	No	No	Required Actions involve placing the plant in Mode 4 (see NOTE 1).
3.4.10 Pressurizer Safety Valves	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4 (with any RCS cold leg temperature > the temperature below which LTOP is required as specified in the PTLR)	No	No	Required Actions involve placing the plant in Mode 4 with the RCS temperature < the temperature below which LTOP is required as specified in the PTLR (see NOTE 1).
3.4.11 Pressurizer Power Operated Relief Valves (PORVs)	Mode 1 → Mode 2 Mode 2 → Mode 3 (with Tavg < 500°F)	No	No	Required Actions have a note that LCO 3.0.4 is not applicable. This note is in CTS, also.

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.4.12 Low Temperature Overpressure Protection (LTOP) System	Mode 4 (with all RCS cold leg temperatures > the temp. below which LTOP is req'd as specified in the PTLR → Mode 4 (with all RCS cold leg temperatures ≤ the temp. below which LTOP is req'd as specified in the PTLR) Mode 4 → Mode 5 Mode 5 → Mode 6 (with RV head on) Mode 6 → Mode 6 (with RV head on) Mode 6 (with RV head on) → Mode 5	No	No	Required·Actions allow mode transitions with inoperable PORVs provided the RCS is depressurized and vented. (See Note 1)
3.4.13 RCS Operational Leakage	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would require achieving Mode 5 (see NOTE 1).
3.4.14 RCS Pressure Isolation Valve (PIV) Leakage	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4 (except valves in RHR flow path in or during transition to/from RHR)	No	No	Condition A: If leaking valve can be isolated, continued operation is allowed (see NOTE 3a). Condition B: If Condition A cannot be met, shutdown to Mode 5 is required (see NOTE 1).
3.4.15 RCS Leakage Detection Instrumentation	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Conditions have a note that LCO 3.0.4 is not applicable.

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.4.16 RCS Specific Activity	Mode 1 → Mode 2 Mode 2 → Mode 3 (with RCS T_{avg} ≥ 500 °F)	No	No	Shutdown to Mode 3 (with RCS T_{avg} < 500 °F) is required (see NOTE 1). Also, Condition A (I-131 in acceptable region) has a Note that LCO 3.0.4 is not applicable.
3.5.1 Accumulators	Mode 1 → Mode 2 Mode 2 → Mode 3 (with RCS pressure > 1000 psig)	No	No	Required Actions would place plant in Mode 3 and RCS pressure ≤ 1000 psig (see NOTE 1). If two or more accumulators inoperable, LCO 3.0.3 would require shutdown to a condition outside the LCO applicability (see NOTE 3b).
3.5.2 ECCS - Operating	Mode 1 → Mode 2 Mode 2 → Mode 3	No	No	Required Actions would require shutdown to Mode 4 (see NOTE 1).
3.5.3 ECCS - Shutdown	Mode 3 → Mode 4	No	No	This transition would be required by the Actions of LCO 3.5.2 (see NOTE 3b).
3.5.4 Refueling Water Storage Tank (RWST)	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in transition to Mode 5 (see NOTE 1).
3.6.1 Containment	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in transition to Mode 5 where the containment function is no longer required (see NOTE 1).
3.6.2 Containment Air Locks	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Condition A and B: With one or more air locks or interlock mechanisms inoperable, Required Actions would allow continued operation (see NOTE 3a). Conditions C and D: Actions require shutdown to Mode 5 if Conditions A or B not met or airlock, inoperable for reasons other than Conditions A or B, cannot be restored within 24 hours (see NOTE 1).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.6.3 Containment Isolation Valves	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Condition A, B, C, and D: These conditions allow continued operation for unlimited time (see NOTE 3a). Condition E: If Required Actions and Completion Times are not met, this condition requires shutdown to Mode 5 (see NOTE 1). ACTION Notes require entering the Conditions and Required Actions of systems made inoperable by closing isolation valves and of LCO 3.6.1 if valve leakage exceeds overall containment leakage criterion. Mode and other transitions for the applicable systems are evaluated in the system specifications.
3.6.4 Containment Pressure	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in transition to Mode 5 (see NOTE 1).
3.6.5 Containment Air Temperature	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in transition to Mode 5 (see NOTE 1).
3.6.6 Containment Spray and Cooling Systems	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in transition to Mode 5 (see NOTE 1).
3.6.7 Spray Additive System	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in transition to Mode 5 (see NOTE 1).
3.6.8 Hydrogen Recombiners	Mode 1 → Mode 2	No	No	Required Actions would result in transition to Mode 3 (see NOTE 1). Also, Condition A (for one recombiner inoperable) has a Note that LCO 3.0.4 is not applicable.
3.7.1 Main Steam Safety Valves (MSSVs)	Mode 1 → Mode 2 Mode 2 → Mode 3	No	No	Condition A: This condition allows continued operation at a lower power level (see NOTE 3a). Condition B: Upon failure to meet Condition A within the Completion Time, a shutdown to Mode 4 is required (see NOTE 1). CTS note that LCO 3.0.4 is not applicable to operation in the Action Statement.

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.7.2 Main Steam Isolation Valves (MSIVs)	Mode 1 → Mode 2	No	No	Condition A and B: With one MSIV inoperable in Mode 1, the Required Actions would place the plant in Mode 2 (see NOTE 1).
	Mode 2 → Mode 3 Mode 1 → Mode 3	No	No	Conditions C, D: With one or more MSIVs inop. in Modes 2 or 3, continued operation is allowed by Conditions C (see NOTE 3a); else, a shutdown to Mode 4 is required by Condition D (see NOTE 1).
3.7.3 Main Feedwater Isolation Valves (MFIVs), Main Feedwater Regulating Valves (MFRVs) and associated Bypass Valves	Mode 1 → Mode 2	No	No	Continued operation is allowed, or this transition is forced by the requirement to shut an inoperable MFIV, MFRV or Bypass Valve within 72 hours in Mode 1 (see NOTE 1).
	Mode 2 → Mode 3 Mode 1 → Mode 3	No	No	Conditions A, B. And C would allow continued operation if one or more inoperable MFIVs, MSRVs or Bypass Valves were closed or isolated in Mode 2 or Mode 3. Condition E would require shutdown to Mode 4 if Required Actions of Conditions A,B, C, or D were not met within the Completion Time (see NOTE 1).
3.7.4 Atmospheric Dump Valves (ADVs)	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4 when SG required for heat removal	No	No	Required Actions would result in a shutdown to Mode 4 (see NOTE 1). A Note states that LCO 3.0.4 is not applicable during the seven-day Completion Time of Condition A while one required valve is inoperable.
3.7.5 Auxiliary Feedwater (AFW) System	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4, when SG required for heat removal	No	No	Conditions C, and H require shutdown to Mode 4 if one or two trains inoperable (see NOTE 1).
	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4, when SG required for heat removal	No	No	Condition D, for three trains inoperable, has a Note that suspends LCO 3.0.3 and all other LCO Required Actions requiring Mode changes. This is more restrictive than CTS. Condition H requires immediate action in Mode 4 if the required AFW train is inoperable.

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.7.6 Condensate Storage Tank (CST) and Fire Water Storage Tank (FWST)	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4, when SG required for heat removal	No	No	Required Actions would result in a shutdown to Mode 4 without reliance on SG heat removal (see NOTE 1).
3.7.7 Vital Component Cooling Water (CCW) System	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in a shutdown to Mode 5 (see NOTE 1).
3.7.8 Auxiliary Saltwater Water (ASW) System	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in a shutdown to Mode 5 (see NOTE 1). Condition A has a Note that requires entering the Conditions and Required Actions of LCO 3.4.6, RCS Loops - Mode 4," for equipment made inoperable by loss of ASW support. This other LCO could require a shutdown to Mode 5, e.g., LCO 3.4.6, Condition B (see NOTE 3b).
3.7.9 Ultimate Heat Sink (UHS)	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in a shutdown to Mode 5 (see NOTE 1).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.7.10 Control Room Ventilation System (CRVS)	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4 Mode 4 → Mode 5	No	No	Conditions A, B: In Modes 1 through 4, Required Actions would require shutdown to Mode 5 with one train of CRVS inoperable (see NOTE 1). Conditions E and H: In Modes 1 through 4, Condition D or H (via LCO 3.0.3) would require shutdown to Mode 5 if both trains of CRVS are inoperable (see NOTE 3b).
	Mode 5 → Mode 6 Mode 6 → Mode 5 Defueled → Mode 6 → Begin fuel move	No	No	Condition C: In Modes 5, 6, or during fuel movement, with one train inoperable, Required Actions allow continued operation by placing one train in operation or exiting the MOSCA by suspending movement of irradiated fuel. (see NOTE 3a).
	Defueled → Mode 6 → Begin fuel move	Yes	No	Conditions D, F and G: In Modes 5, 6, or during fuel movement, with both trains inoperable, condition G requires taking immediate action to suspend fuel movement, but Conditions D and F allow 24 hours to restore; A Note is not added because the Required Actions would prevent this transition in most cases via condition G and condition F represents a degraded but functional condition of the CVRS.(see NOTE 2).
3.7.12 Auxiliary Building Ventilation System (ABVS)	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in a shutdown to Mode 5 (see NOTE 1).
3.7.13 Fuel Handling Building Ventilation System (FHBVS)	→ Begin fuel move	No	No	Condition A, F, and G: During fuel movement with one or two trains inoperable, Required Actions allow continued operation by operating one train (Condition A and F, see NOTE 3a) or taking immediate action to exit the Applicability by suspending fuel movement (Conditions A, F, and G, see NOTE 2).
3.7.15 Spent Fuel Pool Water Level	→ Begin fuel move	No	No	Required Action is to exit the Applicability by suspending fuel movement immediately (see NOTE 2).
3.7.16 Spent Fuel Pool Boron Concentration	→ Begin fuel Storage	No	No	Required Action is to take immediate action to restore the boron concentration of the pool. (see NOTE 2).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.7.17.1 and 3.7.17.2 Spent Fuel Assembly Storage	→ Fuel stored in Region 1 or 2	No	No	Required Action is to exit the Applicability by moving noncomplying fuel immediately (see NOTE 2).
3.7.18 Secondary Specific Activity	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in a shutdown to Mode 5 (see NOTE 1).
3.8.1 AC Sources - Operating	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would ultimately result in shutdown of the plant to Mode 5 if Conditions A, B, C, D, E, F or G could not be met (see NOTE 1). If three AC sources are inoperable (Condition I or J), LCO 3.0.3 would require shutdown to Mode 5 (see NOTE 3b).
3.8.2 AC Sources - Shutdown	Mode 4 → Mode 5	No	No	The Required Actions of LCO 3.8.1, "AC Sources - Operating" would require this transition (see NOTE 3b).
	Mode 5 → Mode 6 Mode 6 → Mode 5 Defueled→ Mode 6	Yes	No	These transitions involve activities affecting core cooling and should not be undertaken with degraded electrical sources. No Note is required because these transitions are adequately addressed by the Notes to be added to LCO 3.4.8 and 3.9.6.
3.8.3 Diesel Fuel Oil, Lube Oil, and Starting Air	DG not req → DG req OPERABLE			Condition G would declare the associated DG inoperable. This would allow the actions for inoperable DGs to dictate. Mode or other condition transitions would be evaluated in those LCOs.
3.8.4 DC Sources - Operating	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in a shutdown to Mode 5 (see NOTE 1).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.8.5 DC Sources - Shutdown	Mode 4 → Mode 5	No	No	The Required Actions of LCO 3.8.4, "DC Sources - Operating" would require this transition (see NOTE 3b).
	Mode 5 → Mode 6 Mode 6 → Mode 5	Yes	No	These transitions involve activities affecting core cooling and should not be undertaken with degraded electrical sources. No Note is required because these transitions are adequately addressed by the Notes to be added to LCO 3.4.8 and 3.9.6.
	Defueled → Mode 6	No	No	Required Actions would prevent this transition by suspending fuel movement immediately (see NOTE 2).
3.8.6 Battery Cell Parameters	DC not req → DC req OPERABLE			Condition B would declare the associated battery inoperable. This would allow the actions for inoperable DC subsystems to dictate. Mode or other condition transitions would be evaluated in those LCOs.
3.8.7 Inverters - Operating	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Required Actions would result in a shutdown to Mode 5 (see NOTE 1).
3.8.8 Inverters - Shutdown	Mode 4 → Mode 5	No	No	The Required Actions of LCO 3.8.7, "Inverters - Operating" would require this transition (see NOTE 3b).
	Mode 5 → Mode 6 Mode 6 → Mode 5	Yes	No	These transitions involve activities affecting core cooling and should not be undertaken with degraded electrical sources. No Note is required because these transitions are adequately addressed by the Notes to be added to LCO 3.4.8 and 3.9.6.
	Defueled → Mode 6	No	No	Required Actions would prevent this transition by suspending fuel movement immediately (see NOTE 2).
3.8.9 Distribution Systems - Operating	Mode 1 → Mode 2 Mode 2 → Mode 3 Mode 3 → Mode 4	No	No	Condition D: Required Actions for one subsystem inoperable would result in a shutdown to Mode 5 (see NOTE 1). Condition E: Required Actions for two vital buses inoperable would result in a shutdown to Mode 5 per LCO 3.0.3 (see NOTE 3b).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.8.10 Distribution Systems - Shutdown	Mode 4 → Mode 5	No	No	The Required Actions of LCO 3.8.9, "Distribution Systems - Operating" would require this transition (see NOTE 3b).
	Mode 5 → Mode 6 Mode 6 → Mode 5	Yes	No	These transitions involve activities affecting core cooling and should not be undertaken with degraded electrical subsystems. No Note is required because these transitions are adequately addressed by the Notes to be added to LCO 3.4.8 and 3.9.6.
	Defueled → Mode 6	No	No	Required Actions would prevent this transition by suspending fuel movement immediately (see NOTE 2).
3.9.1 Boron Concentration	Mode 5 → Mode 6 Defueled → Mode 6	Yes	Yes	Required Actions would prevent the Defueled → Mode 6 transition by suspending CORE ALTERATIONS and positive reactivity additions (see NOTE 2). The transition from Mode 5 to Mode 6 could occur without adequate boration for MODE 6 requirements. A Note should be added.
3.9.3 Nuclear Instrumentation	Mode 5 → Mode 6	Yes	No	Condition A: Completion of Required Actions would permit continued operation with one required monitor inoperable in Mode 6 for an indefinite time (see NOTE 3a). Condition B: A Note preventing the transition is not necessary because flux monitors are not relied on for boron dilution events in MODE 6, the boron concentration is being maintained by LCO 3.9.1, unborated water sources would be isolated by LCO 3.9.2, and the immediate action is to restore one flux monitoring channel to OPERABLE status.
	Defueled → Mode 6	No	No	Condition A precludes CORE ALTERATIONS, so this transition is not possible (see NOTE 2).
		No	No	Condition B: With two monitors inoperable, the Required Actions would result in immediate action to restore one monitor to operable status; however the Required Actions of Condition A would be applicable as well and would require suspending CORE ALTERATIONS immediately preventing the transition (see NOTE 2).

LCO	Applicability From → Entered	New Allow	Add Note	Summary of Evaluation / Comments
3.9.4 Containment Penetrations	→ Begin CORE ALTS → Begin fuel move	No	No	Required Actions would prevent these transitions by requiring immediate action to exit the condition of applicability, i.e., suspend CORE ALTERATIONS and suspend fuel movement (see NOTE 2).
3.9.5 Residual Heat Removal (RHR) and Coolant Circulation - High Water Level	Mode 6, < 23 ft → Mode 6, ≥ 23 ft	No	No	This transition would be required by Condition A of LCO 3.9.6, "Residual Heat Removal (RHR) and Coolant Circulation - Low Water Level," (see NOTE 3b).
	Defueled → Mode 6	No	No	Required Actions would prevent this transition by requiring immediate action to suspend loading fuel assemblies in the core (see NOTE 2).
3.9.6 Residual Heat Removal (RHR) and Coolant Circulation - Low Water Level	Mode 6, ≥ 23 ft → Mode 6, < 23 ft Mode 5 → Mode 6 < 23 ft	Yes	Yes	Condition A: With degraded RHR, these transitions should not be undertaken. A Note should be added.
		Yes	Yes	Condition B, with no RHR loop in operation: The transition into Mode 6 with low water level should not be made unless RHR OPERABILITY requirements are met prior to the transition. The transition would involve leaving a Mode or condition where the RHR requirements were not met and the Required Action was to immediately initiate action to restore RHR loop OPERABILITY. While this Required Action is underway and with an undefined completion time, the transition should be deferred.
3.9.7 Refueling Pool Water Level	→ Begin CORE ALTS → Begin fuel move	No	No	Required Actions would result in immediate action to exit the Applicability by suspending CORE ALTERATIONS (see NOTE 2).