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See Proposed Change To: Tech Specs

SUBJECT: Responds to 980522 RAI re LAR 97-09 for Section 3.6 of TS.
TS change pages enclosed.

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Gregory M. Rueger
Senior Vice President and
General Manager
Nuclear Power Generation

June 25, 1998

PG&E Letter DCL-98-087

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
License Amendment Request 97-09, "Technical Specification Conversion," Response to Request for Additional Information for Section 3.6

Reference 1) DCL-97-106, "License Amendment Request 97-09, Technical Specification Conversion License Amendment Request," dated June 2, 1997

2) DCL-98-003, "License Amendment Request 97-09 Errata," dated January 9, 1998

3) NRC letter from Steven D. Bloom to Gregory M. Rueger dated May 22, 1998

Dear Commissioners and Staff:

PG&E submitted a license amendment request (Ref. 1) for Diablo Canyon Power Plant (DCPP), Units 1 and 2 to convert the current DCPP Technical Specifications (TS) to a set of TS based upon the improved Standard TS. PG&E submitted an errata to Reference 1 as noted in Reference 2. In Reference 3, the NRC staff requested additional information regarding Section 3.6 of the proposed TS changes. The requested information is provided in the enclosures to this letter as are any additional changes needed for Section 3.6 as identified by PG&E.

This letter and the Enclosures are not a supplement to Reference 1, and thus have not been reviewed and approved by DCPP's Plant Staff Review Committee. A supplement to Reference 1 will be provided at a later date. Any deviations from the responses provided in this letter will be discussed in the supplement.

A001

Sincerely,

Gregory M. Rueger

Subscribed and sworn to before me this 25th day of June 1998
State of California
County of San Luis Obispo

Notary Public

AMY J. CALLOWAY
COMM. #1096602
NOTARY PUBLIC CALIFORNIA
SAN LUIS OBISPO COUNTY
My Comm. Expires April 28, 2000

cc: Edgar Bailey, DHS
Steven D. Bloom
Ellis W. Merschoff
David L. Proulx
Howard J. Wong
Diablo Distribution

Enclosures
MRZ/

ACRONYM LIST

ADV	Atmospheric Dump Valve		RCS	Reactor Coolant System
CFCU	Containment Fan Cooling Unit		RG	Regulatory Guide
CIV	Containment isolation Valve		RHR	Residual Heat Removal
CPSES	Comanche Peak Steam Electric Station		SER	Safety Evaluation Report
CTS	Current Tech Spec		SR	Surveillance Requirement
DBA	Design Basis Accident		STS	Standard Tech Spec
DLAP	Department Level Administrative Procedure		TRM	Technical Requirements Manual
DOC	Description of Change		TSTF	Tech Spec Task Force
ECCS	Emergency Core Cooling System		USAR	Updated Safety Analysis Report
ECG	Equipment Control Guideline		WCGS	Wolf Creek Generating Station
EQ	Environment Qualification		WOG	Westinghouse Owners Group
FLOG	Four Loop Owner's Group			
FSAR	Final Safety Analysis Report			
GDC	Generic Design Criteria			
IEEE	Institute of Electrical and Electronic Engineers			
IST	In-service Test			
ITS	Improved Tech Spec			
JFD	Justification For Differences			
LA	License Amendment			
LAR	License Amendment Request			
LCO	Limiting Condition of Operation			
LER	Licensee Event Report			
LG	Less Restrictive			
LOCA	Loss of Coolant Access			
MFIV	Main Feedwater Isolation Valve			
MFRV	Main Feedwater Regulating Valves			
MSSV	Main Steam Safety Valve			
PAMS	Post Accident Monitoring System			
RA	Required Actions			
RAI	Request for additional information			

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. If an NRC RAI question corresponds to a licensee initiated item, only one information package is provided. The question number is listed in the "ENCLOSED" column of the

index and both the question number and the licensee item number are listed on the "ADDITIONAL INFORMATION COVER SHEET."

9. 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

INDEX OF ADDITIONAL INFORMATION

ADDITIONAL INFORMATION NUMBER	APPLICABILITY	ENCLOSED
3.6.0-1	DC, CP, WC, CA	YES
3.6.0-2	DC, CP, WC, CA	YES
3.6.1-1	DC, CP, WC, CA	YES
3.6.1-2	DC, CP, WC	YES
3.6.1-3	DC, CP, WC, CA	YES
3.6.1-4	CA	NA
3.6.1-5	DC, CP	YES
3.6.1-6	DC, CP, WC, CA	YES
3.6.1-7	CA	NA
3.6.1-8	DC	YES
3.6.1-9	CA	NA
3.6.1-10	DC, CP	YES
3.6.2-1	DC, CP, WC, CA	YES
3.6.2-2	CP	NA
3.6.2-3	DC, CP	YES
3.6.2-4	DC, CP, WC, CA	YES
3.6.2-5	DC, CP, WC, CA	YES
3.6.2-6	DC, CP, WC, CA	YES
3.6.2-7	DC, CP, WC, CA	YES
3.6.2-8	DC, CP, WC, CA	YES
3.6.2-9	DC, CP, WC, CA	YES
3.6.2-10	CP, WC, CA	NA
3.6.2-11	WC	NA
3.6.2-12	DC	YES
3.6.2-13	CP	NA
3.6.2-14	DC	YES
3.6.3-1	DC, CP, WC, CA	YES
3.6.3-2	CP	NA
3.6.3-3	CP	NA
3.6.3-4	DC, CP, WC, CA	YES
3.6.3-5	DC	YES
3.6.3-6	DC, CP, WC, CA	YES
3.6.3-7	DC, WC, CA	YES
3.6.3-8	DC, CP, WC, CA	YES
3.6.3-9	DC	YES
3.6.3-10	DC, WC, CA	YES
3.6.3-11	DC, CP, WC, CA	YES
3.6.3-12	DC	YES
3.6.3-13	WC, CA	NA

9806290291

ADDITIONAL INFORMATION NUMBER	APPLICABILITY	ENCLOSED
3.6.3-14	CP	NA
3.6.3-15	DC, WC, CA	YES
3.6.3-16	DC	YES
3.6.3-17	DC, CP, WC, CA	YES
3.6.3-18	DC	YES
3.6.3-19	CP	NA
3.6.3-20	CP	NA
3.6.3-21	WC, CA	NA
3.6.3-22	WC, CA	NA
3.6.3-23	DC, CP, WC, CA	YES
3.6.3-24	WC, CA	NA
3.6.3-25	WC, CA	NA
3.6.3-26	WC, CA	NA
3.6.3-27	DC, CP, WC, CA	YES
3.6.3-28	DC, CP, WC, CA	YES
3.6.3-29	DC, CP, WC, CA	YES
3.6.3-30	CP	NA
3.6.3-31	WC	NA
3.6.3-32	WC, CA	NA
3.6.3-33	WC, CA	NA
3.6.3-34	DC, CP, CA	YES
3.6.3-35	DC, CP, WC, CA	YES
3.6.3-36	CP	NA
3.6.3-37	WC, CA	NA
3.6.3-38	DC	YES
3.6.3-39	DC	YES
3.6.3-40	DC, CA	YES
3.6.3-41	DC, CP, WC, CA	YES
3.6.3-42	DC, CP, WC, CA	YES
3.6.3-43	DC, CP	YES
3.6.3-44	DC	YES
3.6.3-45	CA, WC	NA
3.6.3-46	CA	NA
3.6.3-47	CP	NA
3.6.3-48	DC	YES
3.6.3-49	DC, CA	YES
3.6.3-50	CA	NA
3.6.3-51	WC	NA
3.6.3-52	DC, CP, WC, CA	YES
3.6.3-53	CP	NA
3.6.3-54	WC, CA	NA
3.6.3-55	DC	YES
3.6.3-56	DC, CP	YES

ADDITIONAL INFORMATION NUMBER	APPLICABILITY	ENCLOSED
3.6.3-57	WC	NA
3.6.3-58	CP	NA
3.6.5-1	DC, CP, WC, CA	YES
3.6.5-2	CP	NA
3.6.5-3	DC, CP	YES
3.6.5-4	DC, WC	YES
3.6.6-1	CP	NA
3.6.6-2	DC	YES
3.6.6-3	DC, CP, WC, CA	YES
3.6.6-4	DC, WC, CA	YES
3.6.6-5	DC, WC, CA	YES
3.6.6-6	CA	NA
3.6.6-7	DC, WC, CA	YES
3.6.6-8	DC	YES
3.6.6-9	WC, CA	NA
3.6.6-10	WC, CA	NA
3.6.6-11	DC, WC	YES
3.6.6-12	DC	YES
3.6.6-13	DC, WC, CA	YES
3.6.6-14	WC	NA
3.6.6-15	DC, WC, CA	YES
3.6.6-16	CA	NA
3.6.6-17	DC	YES
3.6.6-18	CA	NA
3.6.6-19	DC	YES
3.6.6-20	DC	YES
3.6.6-21	CA	NA
3.6.6-22	DC, CP, WC, CA	YES
3.6.6-23	WC, CA	NA
3.6.6-24	DC, CP	YES
3.6.7-1	DC	YES
3.6.7-2	DC, WC	YES
3.6.7-3	CA	NA
3.6.7-4	DC	YES
3.6.7-5	DC, CP, WC	YES
3.6.7-6	DC, WC, CA	YES
3.6.7-7	WC	NA
3.6.7-8	WC	NA
3.6.7-9	DC	YES
3.6.7-10	CA	NA
3.6.7-11	WC	NA
3.6.7-12	CP	NA
3.6.7-13	DC	YES

ADDITIONAL INFORMATION NUMBER	APPLICABILITY	ENCLOSED
3.6.7-14	DC, CP, WC	YES
3.6.7-15	DC	YES
3.6.7-16	CP	NA
3.6.7-17	CP	NA
3.6.8-1	DC, WC, CA	YES
3.6.8-2	DC, CP, WC, CA	YES
3.6.8-3	WC	NA
3.6.8-4	DC, CP, WC	YES
3.6.8-5	DC	YES
3.6.8-6	WC, CA	NA
3.6.8-7	DC	YES
3/4/6.4.1-1	DC, CP	YES
DC ALL-001 (3.6 changes only)	DC	see DCL-98-003
DC ALL-002 (3.6 changes only)	DC	see DCL-98-003
DC 3.6-ED	DC	YES
CA 3.6-ED	CA	NA
CA 3.6-001	CA	NA
CA 3.6-002	CA	NA
CA 3.6-004	CA	NA
CP 3.6-002	CP	NA
CP 3.6-004	CP	NA
CP 3.6-005	CP	NA
CP 3.6-006	CP	NA
CP 3.6-007	CP	NA
CP 3.6-008	CP	NA
CP 3.6-009	CP	NA
CP 3.6-010	CP	NA
CP 3.6-011	CP	NA
CP 3.6-012	CP	NA
CP 3.6-013	CP	NA
CP 3.6-014	CP	NA
CP 3.6-015	CP	NA
CP 3.6-016	CP	NA
CP 3.6-017	CP	NA
TR 3.6-002	DC, CP	YES
WC 3.6-ED	WC	NA
WC 3.6-001	WC	NA
WC 3.6-002	WC	NA
WC 3.6-003	WC	NA
WC 3.6-004	WC	NA
WC 3.6-005	WC	NA
WC 3.6-006	WC	NA
WC 3.6-010	WC, CA	NA

3.6 General

ADDITIONAL INFORMATION NO: Q 3.6.0-1 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

CTS 3/4.6.x

In converting CTS 3/4.6 to the ITS, numerous reformatting, renumbering, and editorial rewording changes were made. In addition certain wording preferences and/or English language conventions were adopted, which resulted in the ITS being more readily readable and therefore understandable by the plant operators and users. These changes did not result in any technical changes, but are considered to be Administrative changes. No discussion or justification was provided for these Administrative changes.

Comment: Provide the appropriate discussion and justification for these Administrative changes.

FLOG RESPONSE: As discussed in the transmittal letter and the "Methodology For Mark-Up of Current TS" in the back of Enclosure 2, the CTS has been marked up to reflect the substance of NUREG-1431, Revision 1. In general, only technical changes have been identified. However, some non-technical changes have also been included when the changes cannot easily be determined to be non-technical by a reviewer, or if an explanation is required to demonstrate that the change is non-technical. DOC 1-07-A was created and added to the top of the page for each CTS Section 3.6 Specification. DOC 1-07-A states: "All reformatting, renumbering, and editorial rewording is in accordance with the Westinghouse Standard Technical Specifications, NUREG-1431. During the development, certain wording preferences or English language conventions were adopted. As a result, the Technical Specifications (TS) should be more readily readable, and therefore understandable, by plant operators and other users. During the reformatting, renumbering, and rewording process, no technical changes (either actual or interpretational) to the TS were made unless they were identified and justified."

ATTACHED PAGES:

Encl 2	3/4 6-1, 3/4 6-5, 3/4 6-7, 3/4 6-8, 3/4 6-10, 3/4 6-11, 3/4 6-12, 3/4 6-13, 3/4 6-15, 3/4 6-17, 3/4 6-18
Encl 3A	2
Encl 3B	1

Q3.6.0-1

01-07-A

LIMITING CONDITION FOR OPERATION

3.6.1.1 CONTAINMENT ~~INTEGRITY~~ shall be ~~maintained~~ OPERABLE. 01-01-LG

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

A

Without CONTAINMENT ~~INTEGRITY~~ inoperable, restore CONTAINMENT ~~INTEGRITY~~ to OPERABLE within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours: 01-01-LG Q3.6.1-1

SURVEILLANCE REQUIREMENTS

4.6.1.1 CONTAINMENT ~~INTEGRITY~~ shall be demonstrated OPERABLE: 01-02-A

a. At least once per 31 days by verifying that all penetrations*# not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, ~~or~~ deactivated automatic valves secured in their positions; or check valve with flow through the valve secured except for valves that are open under administrative control as permitted by Specification 3.6.3. Isolation devices in high radiation areas may be verified by administrative means. 01-06-LS19 1-03-A 01-04-LS1

b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3. 01-05-A

*Except valves, blind flanges, and deactivated automatic valves which are located inside the containment ~~and are locked, sealed, or otherwise secured in the closed position~~. These penetrations# shall be verified closed during each COLD SHUTDOWN except such verification need not be performed more often than once per 92 days. 01-06-LS19

Except when closed by manual valves that are locked, sealed, or otherwise secured and blind flanges. If locked, sealed, or otherwise secured manual valves, blind flanges, and deactivated automatic valves are closed to satisfy an ACTION (e.g., 3.6.3) the position must be verified but may be verified by administrative means. 01-06-LS19

Q3.6.1-5

c. By performing containment leakage rate testing, except for containment air lock testing, in accordance with the Containment Leakage Rate Testing Program. 02-01-A

Q3.6.0-1

01-07-A

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each the two containment air locks shall be OPERABLE. ~~with both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed.~~ 03-02-A 03-13-A

03-01-LG

APPLICABILITY: MODES 1, 2, 3, and 4. 03-09-LS7

ACTION:*, **, *** Q3.6.2-7 03-03-LS3

a. With one or more containment air locks with one containment airlock door or the interlock mechanism inoperable+: 03-08-LS6

1. ~~Maintain at least~~ Verify the OPERABLE air lock door closed within 1 hour and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed, and 03-04-M

2. ~~Operation may then continue until performance of the next required overall air lock leakage test provided that~~ Verify the OPERABLE air lock door is ~~verified to be~~ locked closed at least once per 31 days. ***** 03-05-LS4 03-06-LS5

3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. ~~and~~

~~4. The provisions of Specification 3.0.4 are not applicable.~~ 03-12-A

b. With ~~the~~ one or more containment air locks inoperable for reasons other than a., initiate Action to evaluate overall containment leakage rate per LCO 3.6.1, except as the result of an inoperable air lock door, or an interlock mechanism, ~~maintain~~ verify at least one air lock door closed within 1 hour, restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within ~~the following 30~~ 36 hours. 03-07-M

* Entry and exit is permissible to perform repairs on the affected airlock components. 03-09-LS7

** Separate condition entry is allowed for each airlock. 03-02-A

*** Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment" when airlock leakage results in exceeding the overall containment leakage rate. 03-13-A

**** Entry and exit is permissable for 7 days under Administrative Controls if both airlocks are inoperable. 03-03-LS3

***** Airlock doors in high radiation areas may be verified locked by Administrative means. 03-06-LS5

\+ Entry and exit of containment is permissable under the control of a dedicated individual. 03-08-LS6

Q3.6.2-7

\+ Actions a.1, a.2, and a.3 are not applicable if both doors in the same air lock are inoperable and Action b. is entered. 03-14-A 03-08-LS6

LIMITING CONDITION FOR OPERATION

3.6.1.4 Containment internal pressure shall be maintained between -1.0 and +1.2 psig.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the containment internal pressure outside of the limits above, restore the internal pressure to within the limits within 4 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.4 The containment internal pressure shall be determined to be within the limits at least once per 12 hours.

LIMITING CONDITION FOR OPERATION

3.6.1.5 Containment average air temperature shall not exceed 120°F.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the containment average air temperature greater than 120°F, reduce the average air temperature to within the limit within 8 hours, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.5 The containment average air temperature ~~shall be the arithmetical average of the temperatures at the following locations and~~ shall be determined at least once per 24 hours. 05-01-LG

~~Element and Location~~

~~a. TE-85 or TE-86, approximately 100 ft elevation between crane wall and containment wall,~~

~~b. TE-87 or TE-88, approximately 100 ft elevation between steam generators,~~

~~c. TE-89 or TE-90, approximately 140 ft elevation near equipment hatch or stairs at 270°, respectively, and~~

~~d. TE-91 or TE-92, approximately 184 ft elevation on top of steam generator missile barriers away from steam generators.~~

Q3.6.0-1
01-07-A
07-01-A

LIMITING CONDITION FOR OPERATION

3.6.1.7 One purge supply line and/or one purge exhaust line of the Containment Purge System may be open or the vacuum/pressure relief line may be open ~~. The vacuum/pressure relief line may be open~~ provided the vacuum/pressure relief isolation valves are blocked to prevent opening beyond 50° (90° is fully open). Operation with any two of these three lines open is permitted. ~~Operation with the purge supply and/or exhaust isolation valves open or with the vacuum/pressure relief isolation valves open up to 50° shall be limited to less than or equal to 200 hours during a calendar year.~~ Q3.6.3-15 07-04-~~X~~ LG

APPLICABILITY: MODES 1, 2, 3, and 4. 11-02-A

ACTION: ** *** 03-13-A

~~With a containment purge supply and/or exhaust isolation valve open or the vacuum/pressure relief isolation valves open up to 50° for more than 200 hours during a calendar year or the Containment Purge System open and the vacuum/pressure relief lines open, or with the vacuum/pressure relief isolation valves open beyond 50°~~ With two containment purge supply or exhaust valves or two vacuum/pressure relief valves on the same penetration inoperable for reasons other than leakage, close the open isolation valve(s) or isolate the penetration(s) flowpath(s) within 1 hour; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 07-04-~~X~~ LG Q3.6.3-15 07-05-A 11-12-A

(new) One or more penetration flow paths with one or more containment purge or vacuum/pressure relief valves not within purge valve leakage limits. Within 24 hours isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange. Verify the affected penetration flow path is isolated once per 31 days for isolation devices outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment* and perform Surveillance 4.6.3.4 for the resilient seal purge valves closed to comply with this Required Action ~~E.1~~D.1, once per 92 days. 07-02-LS9 01-04-LS1 07-13-M Q3.6.3-35

SURVEILLANCE REQUIREMENTS

4.6.1.7.1 The position of the containment purge supply and exhaust isolation valves and the vacuum/pressure relief isolation valves shall be determined closed at least once per 31 days ~~except for one valve in a penetration flow path while in action 3.6.1.7 for excessive leakage.~~ 07-03-A Q3.6.3-5

~~4.6.1.7.2 The cumulative time that the purge supply and/or exhaust isolation valves or the vacuum/pressure relief isolation valves have been open during a calendar year shall be determined at least once per 7 days.~~ 07-04-~~X~~ LG Q3.6.3-15

4.6.1.7.3 The 12-inch vacuum/pressure relief isolation valves shall be verified to be blocked to prevent opening beyond 50° at least ~~once per 18 months.~~ each REFUELING INTERVAL ED DC-ALL-001

* Isolation devices in high radiation areas may be verified by use of administrative means. 01-04-LS1

** Separate Condition entry is allowed for each penetration flow path. 11-02-A

*** Enter applicable Conditions and Required Actions of the "Containment" LCO when leakage results in exceeding the overall containment leakage rate. 03-13-A

Q3.6.0-1
01-07-A
08-04-A

LIMITING CONDITION FOR OPERATION

8-01-LG

3.6.2.1 Two Containment Spray Systems shall be OPERABLE ~~with each Spray System capable of taking suction from the RWST and transferring spray function to a RHR System taking suction from the containment sump.~~

APPLICABILITY: MODES 1, 2, 3 and 4.

M
08-11-L~~S~~2
Q3.6.6-4

ACTION: *

With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; ~~restore the inoperable Spray System to OPERABLE status within the next 48 hours or~~ and be in COLD SHUTDOWN within the following ~~30~~ 78 hours.

08-02-A

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. By verifying that ~~on recirculation flow~~, each pump's developed head at the flow test point is ~~a differential pressure of~~ greater than or equal to ~~205 psid~~ the required developed head when tested pursuant to ~~Specification 4.0.5~~ the Inservice Test Program;

08-08-LG

DC-ALL-001

c. At least once ~~per 18 months~~ each REFUELING INTERVAL by:

1) Verifying that each automatic valve in the flow path actuates to its correct position on an actual or simulated actuation signal, and

2) Verifying that each spray pump starts automatically on an actual or simulated actuation signal.

d. At least once per 10 years by ~~performing an air or smoke flow test through each spray header and~~ verifying each spray nozzle is unobstructed.

08-06-LG

M
08-11-L~~S~~2
Q3.6.6-4

* Additionally, a completion time of 10 days from discovery of failure to meet the conditions of 3.6.2.1 and 3.6.2.3.

Q3.6.0-1

01-07-A

LIMITING CONDITION FOR OPERATION

3.6.2.2 The Spray Additive System shall be OPERABLE ~~with~~:

a. A spray additive tank with a contained volume of between ~~2025 and 4000 gallons~~ 46.2 % and 91.9% of between 30 and 32% by weight NaOH solution, and 09-01-A

b. ~~Two spray additive eductors each capable of adding NaOH solution from the chemical additive tank to a Containment Spray System pump flow.~~ 09-02-LG

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the Spray Additive System inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the ~~Spray Additive System to OPERABLE status within the next 48 hours or~~ be in COLD SHUTDOWN within the following ~~30~~ 78 hours. 09-03-A and Q3.6.7-1

SURVEILLANCE REQUIREMENTS

4.6.2.2 The Spray Additive System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. At least once per 6 months by:

1) Verifying the contained solution volume in the tank, and

2) Verifying the concentration of the NaOH solution by chemical analysis.

c. At least once each REFUELING INTERVAL ~~per 18 months~~ by verifying that each automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to its correct position on ~~a~~ an actual or simulated ~~Containment Spray actuation test~~ signal; and 09-04-A 09-05-TR1 DC-ALL-001

d. At least once per 5 years by verifying both spray additive and RWST full flow ~~from the test valve 8993~~ through each solution flow path in the Spray Additive System. 09-07-M 09-06-LG Q3.6.7-9

Q3.6.0-1
01-07-A
08-04-A

LIMITING CONDITION FOR OPERATION

3.6.2.3 The Containment Cooling System shall be OPERABLE with either:

a. At least four containment fan cooler units (CFCUs), or

b. At least three CFCUs, each of the three supplied from a different vital bus.

APPLICABILITY: MODES 1, 2, 3, and 4.

M
08-11-~~L~~2
Q3.6.6-4

ACTION: *

a. With the requirements of the above specification not satisfied, but at least two CFCUs OPERABLE and both Containment Spray Systems OPERABLE, restore the Containment Cooling System to OPERABLE status within 7 days, otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With the requirements of the above specification not satisfied and one Containment Spray System inoperable, but at least two CFCUs OPERABLE, restore the inoperable Containment Spray System to OPERABLE status within 72 hours otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the Containment Cooling System to OPERABLE status within 7 days of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Insert Q3.6.6-12

08-12-M
08-10-A

(new) With one Containment Spray System and one or less CFCUs operable or two Containment Spray Systems inoperable, enter LCO 3.0.3.

, or one or less CFCUs OPERABLE

SURVEILLANCE REQUIREMENTS

Q3.6.6-2

4.6.2.3 Each containment fan cooler unit shall be demonstrated OPERABLE:

a. At least once per 31 days by:

1) Starting each containment fan cooler unit and verifying that each containment fan cooler unit operates for at least 15 minutes.

M
08-11-~~L~~2
Q3.6.6-4

* Additionally, a completion time of 10 days from discovery of failure to meet the conditions of 3.6.2.1 and 3.6.2.3.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 Each containment isolation valve shall be OPERABLE.* #

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: ** , *** , ****

With one or more ~~of the~~ penetration flow paths with one isolation valve~~(s)~~ inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and: 11-12-A

~~a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or~~ 11-16-A

b. Isolate each affected penetration flow path within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or 11-12-A

c. Isolate each affected penetration flow path within 4 hours by use of at least one closed manual valve or blind flange or check valve with flow secured; or 11-12-A 01-03-A

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Not applicable to Main Steam Safety Valves (MSSVs), Main Steam Isolation Valves (MSIVs), Main Feedwater Isolation Valves (MFIVs), ~~Main Feedwater Regulating Valves (MFRVs) and Associated Bypass Valves,~~ and Atmospheric Dump Valves (ADVs). 11-11-A Q3.6.3-10

NOTE 1 * ~~Locked or sealed closed valves~~ Penetration flow paths may be opened on an intermittent basis under administrative control. 11-01-LS13

(new) With one or more penetration flow paths with two containment isolation valves inoperable, isolate the affected penetration flow path within 1 hour by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange; or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 11-04-A

(new) With one or more penetration flow paths of the type configured with only one containment isolation valve and a closed system, with one containment isolation valve inoperable, isolate the affected penetration flow path within 72 hours by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 11-05-LS14

SURVEILLANCE REQUIREMENTS

~~4.6.3.1 Each containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.~~ 11-06-TR3 11-09-A

CONTAINMENT SYSTEMS

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN ANALYZERS/MONITORS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two independent containment hydrogen analyzers/monitors shall be OPERABLE.

APPLICABILITY: MODES 1, ~~and~~ 2 and 3. 12-02-M

ACTION: LCO 3.0.4 is not applicable. 13-05-LS23

a. With one hydrogen analyzer/monitor inoperable, restore the inoperable analyzer/monitor to OPERABLE status within 30 days or ~~be in at least HOT STANDBY within the next 6 hours~~ submit a Special Report in accordance with 10 CFR 50.4 within the following 14 days outlining the preplanned alternate method of monitoring, the cause of the inoperability and the plans and schedule for restoring the hydrogen analyzer/monitor to OPERABLE status. 12-03-LS15

b. With both hydrogen analyzer/monitors inoperable, restore at least one analyzer/monitor to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and be in HOT SHUTDOWN within the next 6 hours. 12-04-M

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen analyzer/monitor shall be demonstrated OPERABLE at least once per ~~92 days~~ 18 months by performing a CHANNEL CALIBRATION ~~using a zero and span gas~~. 12-05-LS16 12-06-LG

(new) Perform CHANNEL CHECK at least once per 31 days (if energized) to verify hydrogen analyzer/monitor OPERABLE. 12-07-M

DC 3.6 ED

03.6.0-1
01-07-A

LIMITING CONDITION FOR OPERATION

3.6.4.2 Two independent Hydrogen Recombiner Systems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With one Hydrogen Recombiner System inoperable*, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours. 13-05-LS23

(new) With two hydrogen recombers inoperable, verify within 1 hour and once per 12 hours thereafter, by administrative means, that the hydrogen control function is maintained, and restore one hydrogen recombiner to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours. 13-01-LS17

SURVEILLANCE REQUIREMENTS

4.6.4.2 Each Hydrogen Recombiner System shall be demonstrated OPERABLE:

a. At least once each ~~refueling interval~~ REFUELING INTERVAL ~~18 months~~ by ~~verifying, during performing~~ a Recombiner System functional test, ~~that the minimum heater sheath temperature increases to greater than or equal to 700°F within 90 minutes. Upon reaching 700°F, increase the power setting to maximum power for 2 minutes and verify that the power meter reads greater than or equal to 60 kW; and~~ DC-ALL-001 13-02-LS18 13-03-LG

b. At least once each ~~refueling interval~~ REFUELING INTERVAL ~~18 month~~ by: DC-ALL-001 13-02-LS18

~~1) Performing a CHANNEL CALIBRATION of all recombiner instrumentation and control circuits,~~ 13-04-LG

2) Verifying through a visual examination that there is no evidence of abnormal conditions within the recombiner enclosure ~~(i.e., loose wiring or structural connections, deposits of foreign materials, etc.)~~, and 13-03-LG

3) Verifying the integrity of all heater electrical circuits by performing a resistance to ground test ~~following the above required functional test. The resistance to ground for any heater phase shall be greater than or equal to 10,000 ohms~~. 13-03-LS

* 3.0.4 is not applicable. 13-05-LS23

CHANGE NUMBER	NSHC	DESCRIPTION
01-06	LS19	The CTS requires all penetrations not capable of being closed by an OPERABLE containment automatic isolation valve (and required to be closed for accident conditions) be verified closed on a 31 day frequency, except for valves, blind flanges, and deactivated automatic valves which are located inside containment and locked closed, sealed, or otherwise secured in a closed position. These excepted penetrations were to be verified closed during each cold shutdown but not more often than once per 92 days. Consistent with Traveler TSTF-45, Rev. 1 only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed at the once per COLD SHUTDOWN frequency. Penetrations (inside or outside containment) which are isolated by manual valves and blind flanges that are locked, sealed or otherwise secured are not required to be verified closed, since they are verified to be in the correct position prior to locking/securing. CTS Surveillance 4.6.1.1 is incorporated into ITS SR 3.6.3.3 and SR 3.6.3.4 and into the redundant requirements of ITS 3.6.3, Required Action A.2, C.2, and [D.2]. As discussed above, the ITS surveillances were modified consistent with TSTF-45. The redundant Required Actions were also modified in a subsequent Traveler (WOG-91). The TSTF-45 modifications to the ITS surveillances and the WOG-91 modifications to Required Actions, while similar, differed in that the Required Actions still require some verification of position of valves that are locked closed, sealed or otherwise secured, although this verification may be performed via administrative means. The surveillances require no additional verification.
01-07	A	Insert Q3.6.0-1
02-01	A	Consistent with NUREG-1431, the Containment Leakage LCO is now included in ITS 3.6.1, Containment LCO. Q3.6.1-5
02-02	A	~~The wording "prior to increasing the Reactor Coolant System temperature above 200°F" is replaced by the equivalent requirement of "prior to the first unit startup following testing performed in accordance with the Containment Leakage Rate Testing Program." The fact that the Applicability of the new Containment LCO is MODE 1-4 and that SR 3.0.4 requires surveillances to be performed before entering the MODE of Applicability, ensures that the required leakage rate testing is performed and that the as-left test acceptance criteria are met before entry into MODE 4. This change is consistent with NUREG-1431. This requirement is now included in ITS 5.5.16, the Containment Leak Rate Test Program.~~ Not Applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	A	This change is not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparison Table (Enclosure 3B).
02-04	A	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-05	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-01 ~~LO~~ A	~~CONTAINMENT INTEGRITY is no longer a defined term in NUREG-1431. The requirements for containment OPERABILITY, including the requirements previously found in the CONTAINMENT INTEGRITY definition, are discussed in the expanded Bases of the containment LCO.~~ Insert Q3.6.1-1	Yes	Yes	Yes	Yes
01-02 A	Consistent with NUREG-1431, this SR to verify the penetration flow path is isolated is addressed by ITS 3.6.3, Containment Isolation Valves.	Yes	Yes	Yes	Yes
01-03 A	An equal alternative isolation method of a "check valve with the flow through the valve secured" is added to the ACTION statements.	Yes	Yes	Yes	Yes
01-04 LS1	A note is added allowing valves, flanges, and isolation devices located in high radiation areas to be verified by use of administrative means:	Yes	Yes	Yes	Yes
01-05 A	This requirement is addressed by 3.6.2, Containment Air Locks Required Actions.	Yes	Yes	Yes	Yes
01-06 LS19	Only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed.	Yes	Yes	Yes	Yes
02-01 A	The Containment Leakage LCO is now addressed by ITS 3.6.1, Containment.	Yes	Yes	Yes	Yes
02-02 A	The wording "prior to increasing the Reactor Coolant System temperature above 200°F" is replaced by the equivalent requirement of "prior to the first unit startup following testing performed in accordance with the Containment Leakage Rate Testing Program."	~~Yes~~ No, See Amendments 120/118 (3.6.1.2 no longer in CTS).	Yes Q3.6.1-5	No, 3.6.1.2 not in CTS.	No, 3.6.1.2 not in CTS.
02-03 A	CPSES testing requirements for containment air locks are now provided in ITS 3.6.2 for Containment Air Locks.	No	Yes	No	No
01-07 A	INSERT				Q3.6.0-1

Enclosure 3A - page 2

DOC 1-07-A

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

Enclosure 3B - page 1

DOC 1-07-A

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

Applicability:

DC - Yes
CP - Yes
WC - Yes
UE - Yes

ADDITIONAL INFORMATION NO: Q 3.6.0-2 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

CTS 3/4.6.x
ITS 3.6.x and Associated Bases

Changes to the CTS and ITS markups are indicated by highlighting or striking out text. Modifications and additions are mainly highlighted and in some cases indicated by handwritten text. Deletions are indicated by striking the text out. During the course of the review of Section 3.6 numerous changes, modifications and additions have been found particularly in the ITS Bases which are not highlighted. In addition, a number of deletions were made in the ITS in which the text completely disappeared (it was not struck out). These deletions were found only because the ITS was being checked against another document (TSTF, STS or other FLOG ITS), and they usually occurred at the end of a paragraph, or subsection.

Comment: Review the CTS and ITS markups to verify that the text accurately reflects the CTS and STS and that all changes, modifications, additions and deletions are properly indicated. Update the submittal to reflect results of this review.

FLOG RESPONSE: The submitted CTS, ITS, and ITS Bases markups for Section 3.6 have been compared to the CTS, STS, and STS Bases, respectively. 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 5A	3.6-19
Encl 5B	B3.6-3, B3.6-6, B3.6-16, B3.6-25, B3.6-37, B3.6-39

ACTIONS (Continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. ~~Two~~ One required containment ~~cooling trains~~ spray train inoperable and one required CFCU train inoperable such that a minimum of two CFCUs remain OPERABLE.	D.1 Restore one required containment ~~cooling~~ spray train to OPERABLE status. OR D.2 Restore one CFCU train to OPERABLE status such that four CFCUs or three CFCUs, each supplied by a different vital bus, are OPERABLE.	72 hours 3.6-14 72 hours Q3.6.0-2 Red line
E. Required Action and associated Completion Time of Condition C or D not met.	E.1 Be in MODE 3. AND E.2 Be in MODE 5.	6 hours 36 hours
F. Two containment spray trains inoperable. OR ~~Any combination of three or more trains inoperable.~~ One containment spray train inoperable and two CFCU trains inoperable such that one or less CFCUs remain OPERABLE. OR One or less CFCUs OPERABLE	F.1 Enter LCO 3.0.3.	Immediately 3.6-14

BASES

~~these individual limits only~~ result in the containment being inoperable when the leakage results in exceeding the overall acceptance criteria of ~~Appendix J~~ 1.0 L_a.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material into containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, containment is not required to be OPERABLE in MODE 5 to prevent leakage of radioactive material from containment. The requirements for containment during MODE 6 are addressed in LCO 3.9.4, "Containment Penetrations."

ACTIONS

A.1

In the event containment is inoperable, containment must be restored to OPERABLE status within 1 hour. The 1 hour Completion Time provides a period of time to correct the problem commensurate with the importance of maintaining containment during MODES 1, 2, 3, and 4. This time period also ensures that the probability of an accident (requiring containment OPERABILITY) occurring during periods when containment is inoperable is minimal.

B.1 and B.2

If containment cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1

(Ref. 4) Q3.6.1-6

Maintaining the containment OPERABLE requires compliance with the visual examinations and leakage rate test requirements as specified in the Containment Leakage Rate Testing Program which is consistent with Reg Guide 1.163, 1995, and the requirements of 10 CFR 50, Appendix J, Option B (Ref. 1)~~, as modified by approved exemptions~~. Failure to meet air lock ~~and purge valve with resilient seal~~ leakage limits specified in the Containment Leakage Rate Test Program ~~LCO 3.6.2 and LCO 3.6.3~~ does not invalidate the acceptability of these overall leakage determinations unless their contribution to overall Type A, B, and C leakage causes that to exceed limits. As left leakage prior to the first startup after performing a required ~~10 CFR 50, Appendix J,~~ Containment Leakage Rate Testing Program leakage test is required to be < 0.6 L_a for combined Type B and C leakage following an outage or shutdown that included Type B and C testing only, and ~~<~~ ≤ 0.75 L_a for overall Type A leakage following an outage or shutdown that included Type A testing. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of ≤ 1.0 L_a. At ≤ 1.0 L_a the offsite dose consequences are bounded by the assumptions of the safety analysis. SR Frequencies are as required by ~~Appendix J, as modified by approved exemptions,~~ 10CFR50, App J, Option B. These periodic testing requirements verify that the containment leakage rate does not exceed the leakage rate assumed in the safety analysis. ~~Thus, SR 3.0.2 (which allows frequency extensions) does not apply.~~ Q3.6.1-6

redline

Containment Leakage Rate Testing Program

Insert Reviewer's Note

SR 3.6.1.2 should have been shown struck-out since Q3.6.0-2 not applicable to DCPP.

BASES

Each air lock is required to be OPERABLE. For the air lock to be considered OPERABLE, the air lock interlock mechanism must be OPERABLE, the air lock must be in compliance with the Type B air lock leakage test, and both air lock doors must be OPERABLE. The interlock allows only one air lock door of an air lock to be opened at one time. This provision ensures that a gross breach of containment does not exist when containment is required to be OPERABLE. Closure of a single door in each air lock is sufficient to provide a leak tight barrier following postulated events. Nevertheless, both doors are kept closed when the air lock is not being used for normal entry into or exit from containment.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, the containment air locks are not required in MODE 5 to prevent leakage of radioactive material from containment. The requirements for the containment air locks during MODE 6 are addressed in LCO 3.9.~~3~~4, "Containment Penetrations."

ACTIONS

The ACTIONS are modified by a Note that allows entry and exit to perform repairs on the affected air lock component. If the outer door is inoperable, then it may be easily accessed for most repairs. It is preferred that the air lock be accessed from inside primary containment by entering through the other OPERABLE air lock. However, if this is not practicable, or if repairs on either door must be performed from the barrel side of the door then it is permissible to enter the air lock through the OPERABLE door, which means there is a short time during which the containment boundary is not intact (during access through the OPERABLE door). The ability to open the OPERABLE door, even if it means the containment boundary is temporarily not intact, is acceptable due to the low probability of an event that could pressurize the containment during the short time in which the OPERABLE door is expected to be open. After each entry and exit, the OPERABLE door must be immediately closed. If ALARA conditions permit, entry and exit should be via an OPERABLE air lock.

A second Note has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each air lock. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable air lock. Complying with the Required Actions may allow for continued operation, and a subsequent inoperable air lock is governed by subsequent Condition entry and application of associated Required Actions.

Q3.6.2-12

In the event the air lock leakage results in exceeding the ~~limit for the air lock then the leakage must be evaluated for its effect on the~~ overall containment leakage rate. Note 3 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1, "Containment" if the overall containment leakage limits are exceeded.

Q3.6.0-2

A.1, A.2, and A.3

With one air lock door in one or more containment air locks inoperable, the OPERABLE door must be verified closed (Required Action A.1) in each affected containment air lock. This ensures that a leak tight containment barrier is maintained by the use of an OPERABLE air lock door. This action must be completed within 1 hour. This specified time period is consistent with the ACTION of LCO 3.6.1, which requires containment be restored to OPERABLE status within 1 hour.

In addition, the affected air lock penetration must be isolated by locking closed the OPERABLE air lock door within the 24 hour Completion Time. The 24 hour Completion

(Continued)

APPLICABILITY (continued) Therefore, the containment isolation valves are not required to be OPERABLE in MODE 5. The requirements for containment isolation valves during MODE 6 are addressed in LCO 3.9.4, "Containment Penetrations."

ACTIONS

Insert Q3.6.3-44

The ACTIONS are modified by a Note allowing penetration flow paths that are normally isolated by locked or sealed closed valves or valves that do not receive a containment isolation signal, ~~except for 48 inch Containment Purge and 12 inch Hydrogen Purge valve penetration flow paths.~~ to be unisolated intermittently under administrative controls. These administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for containment isolation is indicated. ~~Due to the size of the containment purge line penetration and the fact that the 48 inch Containment Purge and the 12 inch Hydrogen Purge supply and exhaust valves are not qualified for automatic closure from their open position under DBA conditions and that those penetrations exhaust directly from the containment atmosphere to the environment, the penetration flow path containing these valves may not be opened under administrative controls. A single valve in either the 48 inch Containment Purge or the 12 inch Hydrogen Purge a penetration flow path may be opened to effect repairs to an inoperable valve, as allowed by SR 3.6.3.1.~~ This Note also limits operation of the normally isolated Containment Supply and Exhaust valves (2 penetration flow paths) and the Vacuum/Pressure Relief valves (1 penetration flow path) to no more than 2 of 3 penetration flow paths open at one time.

~~purge~~ Q3.6.0-2

A second Note has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each penetration flow path. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable containment isolation valve. Complying with the Required Actions may allow for continued operation, and subsequent inoperable containment isolation valves are governed by subsequent Condition entry and application of associated Required Actions.

The ACTIONS are further modified by a third Note, which ensures appropriate remedial actions are taken, if necessary, if the affected systems are rendered inoperable by an inoperable containment isolation valve.

In the event the ~~air lock~~ containment isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria, Note 4 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1.

A.1 and A.2

(Continued)

BASES

SR 3.6.3.8

Containment isolation φ3.6.0-2

Automatic containment isolation valves close on a Phase A, Phase B, or CVI signal to prevent leakage of radioactive material from containment following a DBA. This SR ensures that each automatic ~~containment isolation~~ valve will actuate to its isolation position on a containment isolation signal. This surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The ~~18~~ 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass this Surveillance when performed at the ~~18~~ 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint. DC-ALL-001 DC-ALL-001

SR 3.6.3.9 Not Used

~~In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.9 verifies the operation of the check valves that are not testable during unit operation. The Frequency of 18 months is based on such factors as the inaccessibility of these valves, the fact that the unit must be shut down to perform the tests, and the successful results of the tests on an 18 month basis during past unit operation.~~

SR 3.6.3.10

~~Reviewer's Note: This SR is only required for those units with resilient seal purge valves allowed to be open during [MODE 1, 2, 3, or 4] and having blocking devices on the valves that are not permanently installed.~~

Verifying that each ~~[42]~~ 12 inch containment ~~purge~~ pressure/vacuum relief valve is blocked to restrict opening to ~~≤ [50]%~~ 50° is required to ensure that the valves can close under DBA conditions within the times assumed in the analyses of References 1 and 2. If a LOCA occurs, the ~~purge~~ containment pressure/vacuum relief valves must close to maintain containment leakage within the values assumed in the accident analysis. ~~At other times when purge valves are required to be capable of closing (e.g., during movement of recently irradiated fuel assemblies), pressurization concerns are not present, thus the purge valves can be fully open.~~ The ~~18~~ 24 month Frequency is appropriate because the blocking devices are not typically removed ~~only during a refueling outage~~ except during maintenance. DC-ALL-001

(Continued)

BASES (Continued)

pressurizer compartment, ~~and instrument tunnel~~ reactor coolant pumps, and outside the secondary shield in the lower areas of containment.

BACKGROUND (continued)

During normal operation, ~~all four fan units~~ three CFCUs are operating. The fans are normally operated at high speed with ~~ESW~~ CCW supplied to the cooling coils. The ~~Containment Cooling System, operating in conjunction with the Containment Ventilation and Air Conditioning systems, is~~ CFCUs are designed to limit the ambient containment air temperature during normal unit operation to less than the limit specified in LCO 3.6.5, "Containment Air Temperature." This temperature limitation ensures that the containment temperature does not exceed the initial temperature conditions assumed for the DBAs.

In post accident operation following an actuation signal, the ~~Containment Cooling System fans~~ CFCUs are designed to start automatically in slow speed if not already running. If running in high (normal) speed, the fans automatically shift to slow speed. The fans are operated at the lower speed during accident conditions to prevent motor overload from the higher mass atmosphere. The temperature of the ~~ESW~~ CCW is an important factor in the heat removal capability of the fan units.

APPLICABLE SAFETY ANALYSES

The Containment Spray System and Containment Cooling System limits the temperature and pressure that could be experienced following a DBA. The limiting DBAs considered are the loss of coolant accident (LOCA) and the main steam line break (MSLB). The LOCA and MSLB are analyzed using computer codes designed to predict the resultant containment pressure and temperature transients. No DBAs are assumed to occur simultaneously or consecutively. The postulated DBAs are analyzed with regard to containment ESF systems, assuming the ~~loss of one~~ worst case single failure. ~~containment spray train for LOCA and the failure to close of one MSIV for the SLB ESF bus, which are is the worst case single active failure for the respective DBAs. [Ref. 3] and results in one train of the Containment Spray System and Containment Cooling System being rendered inoperable.~~ For the LOCA case, the worst single failure is the failure of one SSPS train, which results in only one CSP and two CFCUs available. For SLB case, the worst single failure is the failure of one MSIV to close with two CSP and three CFCUs operating.

The analysis and evaluation show that under the worst case scenario, the highest peak containment pressure is ~~46.12~~ 42.25 psig (experienced during an MSLB at 30% power) compared to an allowable 47 psig. The analysis shows that the peak containment temperature is ~~340.85~~ 326°F (experienced during an MSLB at 70% power) and is compared to the environmental qualifications of plant equipment. Both results meet the intent of the design basis. ~~(See the Bases for LCO 3.6.4, "Containment Pressure," and LCO 3.6.5 for a detailed discussion.)~~ The analyses and evaluations assume a unit specific power level of ~~100~~ 102% for the LOCA with one containment spray train and two CFCUs operating. The limiting case MSLB analyses and evaluations

~~LOCA~~

Q 3.6.0-2

remove strike-out Q 3.6.6-17

(Continued)

BASES (Continued)

LCO

During a DBA LOCA, a minimum of ~~one containment cooling train~~ two CFCUs and one containment spray train are required to maintain the containment peak pressure and temperature below the design limits (Refs. ~~7~~ 4). Additionally, one containment spray train is also required to remove iodine from the containment atmosphere and maintain concentrations below those assumed in the safety analysis. To ensure that ~~this~~ these requirements are met, two containment spray trains and two ~~containment cooling~~ CFCU trains consisting of four CFCUs or three CFCUs each supplied by a different vital bus must be OPERABLE. Therefore, in the event of an accident, at least one train ~~in each system~~ of containment spray and one train of CFCUs (two CFCUs) operate, assuming the worst case single active failure occurs. Each Containment Spray ~~System~~ train typically includes a spray pump, spray headers, nozzles, valves, piping, instruments, and controls to ensure an OPERABLE flow path capable of taking suction from the RWST upon an ESF actuation signal ~~and automatically transferring. Upon actuation of the RWST empty alarm, the suction flowpath must be capable of being manually transferred to the containment sump.~~ Q3.6.0-2

Each ~~Containment Cooling System~~ CFCU ~~typically~~ includes ~~demisters,~~ cooling coils, dampers, fans, instruments, and controls to ensure an OPERABLE flow path. Q3.6.0-2

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment and an increase in containment pressure and temperature requiring the operation of the containment spray trains and ~~containment cooling trains~~ CFCUs.

In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Thus, the Containment Spray System ~~and the Containment Cooling System are~~ is not required to be OPERABLE in MODES 5 and 6. remove strike-out

Q3.6.6-20

ACTIONS

A.1

With one containment spray train inoperable, the inoperable containment spray train must be restored to OPERABLE status within 72 hours. In this Condition, the remaining OPERABLE spray and cooling trains are ~~is~~ adequate to perform the iodine removal and containment cooling functions. The 72 hour Completion Time takes into account the redundant heat removal capability afforded by the Containment Spray System, reasonable time for repairs, and low probability of a DBA occurring during this period.

(Continued)

3.6.1 Containment

ADDITIONAL INFORMATION NO: Q 3.6.1-1 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 1-04 A (CTS 1.0)
DOC 1-01 LG
CTS 1.7 (1.8 for Diablo Canyon)
CTS 3/4.6.1.1
ITS B3.6.1. Bases - BACKGROUND

CTS 1.7 (8.8 in Diablo Canyon) defines CONTAINMENT INTEGRITY. A markup of CTS 1.7/1.8 is provided in the CTS markup of CTS 1.0, but not in the markup of

CTS 3.6. DOC 1-04A (CTS 1.0) states that the definition of CONTAINMENT INTEGRITY is deleted from the CTS/ITS. DOC 1-01 LG in CTS 3.6 states that the definition requirements have been relocated to the Bases for ITS 3.6.1. Both of these justifications are incorrect. DOC 1-04A (CTS 1.0) is incorrect in that the definition is not deleted but relocated to various Bases in ITS 3.6, which is a Less Restrictive (LG) change. In addition, the individual statements within the definition (CTS 1.7a/1.8a, 1.7.c/1.8c, 1.7.d/e/1.8d, and 1.7f) are used as the basis for various ITS SRs and Bases statements in ITS 3.6.1, 3.6.2 and 3.6.3 which are Administrative and Less Restrictive (LG) changes. DOC 1-01 LG does not relocate the definition from the CTS to the ITS Bases, but changes CTS 3/4.6.1.1 from maintaining CONTAINMENT INTEGRITY to the containment shall be OPERABLE. This is an Administrative change. (See Comment Numbers 3.6.1-2, 3.6.1-3, 3.6.1-4, 3.6.2-1, 3.6.2-2, 3.6.3-1 and 3.6.3-2).

Comment: Revise the CTS markup of CTS 1.7/1.8 and CTS 3/4.6.1.1 to reflect the above discussion. Provide additional discussions and justifications for relocating the details of the definition to ITS B3.6.1. Bases-BACKGROUND and to ITS 3.6.2 and 3.6.3. See Comment Numbers 3.6.1-2, 3.6.1-3, 3.6.1-4, 3.6.2-1, 3.6.2-2, 3.6.3-1 and 3.6.3-2.

FLOG RESPONSE: DOC 1-04 A (CTS 1.0) has been changed to DOC 1-04 LG (CTS 1.0) and revised to read:

"The definition of CONTAINMENT INTEGRITY is deleted on the basis that it does not appear in NUREG-1431. It has been replaced with the new requirement of Improved TS 3.6.1 for containment to be OPERABLE. The details of this definition describe what constitutes an OPERABLE containment. Thus, they would be incorporated into the Bases for improved TS LCO 3.6.1 and are reflected in various Surveillance Requirements for ITS 3.6.1, 3.6.2, and 3.6.3. This change is proposed to conform to NUREG-1431, and it is categorized as LG because information of a descriptive nature would be moved to the Bases of the Improved TS.

For the individual statements within the definition (CTS 1.7a/1.8a, 1.7c/1.8c, 1.7d/e/1.8d, and 1.7f), that are used as the basis for various ITS SRs that would be retained in ITS 3.6.1,

3.6.2, and 3.6.3, these changes are categorized as Administrative. The sealing requirements (CTS 1.7e/d/1.8e) have been incorporated into the Bases of 3.6.1 (Background). Further discussion of this change is also given in change description 1-01 of CTS Section 3.6."

DOC 1-01 LG (CTS 3.6) has been changed to DOC 1-01 A and revised to read:

"Consistent with NUREG-1431, Improved TS 3.6.1 would retain requirements currently specified in CTS 3/4.6.1.1, "CONTAINMENT INTEGRITY." [ ] Meeting containment leakage requirements would be made a direct condition of containment OPERABILITY through SR 3.6.1.1. In addition, the term CONTAINMENT INTEGRITY has not been retained as a defined term in the ITS. The requirements for containment OPERABILITY, including the requirements previously found in the CONTAINMENT INTEGRITY definition, would be placed in the Bases for TS 3.6.1. (See the discussion of the deletion of the defined term CONTAINMENT INTEGRITY in change description 1-04 of CTS Section 1.0.) [ ]. These changes are classified as Administrative (A)."

ATTACHED PAGES:

1.0 Encl 2	1-2
1.0 Encl 3A	1
1.0 Encl 3B	1
3.6 Encl 2	3/4 6-1
3.6 Encl 3A	1
3.6 Encl 3B	1

CHANNEL FUNCTIONAL TEST

1.7 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels - the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY including required alarm and/~~or~~ trip functions, or — 01-01-A

b. Bistable channels - the injection of a simulated or actual signal into the sensor to verify OPERABILITY including required alarm and/~~or~~ trip functions, or — 01-01-A

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/~~or~~ trip functions. — 01-01-A

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. — 01-30-A

~~CONTAINMENT INTEGRITY~~ — Q3.6.1-1

~~1.8 CONTAINMENT INTEGRITY shall exist when:~~ — ~~01-04-A~~ LG

~~a. All penetrations required to be closed during accident conditions are either:~~

~~1. Capable of being closed by an OPERABLE containment automatic isolation valve system, or~~ — Q3.6.3-1 ~~01-35-A~~

~~2. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.~~

~~b. All equipment hatches are closed and sealed.~~ — Q3.6.2-1 ~~01-36-A~~

~~c. Each air lock is in compliance with the requirements of Specification 3.6.1.3.~~

~~d. The containment leakage rates are within the limits of specification 3.6.1.2 and~~ ~~as determined by Surveillance Requirement 4.6.1.1.c are within the limits listed in the Bases for Specification 3.6.1.1~~ Q3.6.1-5

~~e. The sealing mechanism associated with each penetration (e.g., welds, bellows or O-rings) is OPERABLE.~~ ~~01-37-A~~ Q3.6.1-3

~~CONTROLLED LEAKAGE~~

~~1.9 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.~~ — 01-05-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	The definition of CHANNEL CALIBRATION is reworded to be consistent with NUREG-1431. The revised wording provides additional detail concerning calibration of instrument channels with resistance temperature detector (RTDs) or thermocouples.
01-04	~~A~~ LG	~~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 [ ]~~ Q3.6.1-1 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.

1.0 Encl 3A

1-04-LG The definition of CONTAINMENT INTEGRITY is deleted on the basis that it does not appear in NUREG-1431. It has been replaced with the new requirement of Improved TS 3.6.1 for containment to be OPERABLE. The details of this definition describe what constitutes an OPERABLE containment. Thus, they would be incorporated into the Bases for improved TS LCO 3.6.1 and are reflected in various Surveillance Requirements for ITS 3.6.1, 3.6.2, and 3.6.3. This change is proposed to conform to NUREG-1431, and it is categorized as LG because information of a descriptive nature would be moved to the Bases of the Improved TS.

For the individual statements within the definition (CTS 1.7a/1.8a, 1.7c/1.8c, 1.7d/e/1.8d, and 1.7f) that are used as the basis for various ITS SRs that would be retained in ITS 3.6.1, 3.6.2, and 3.6.3, these changes are categorized as Administrative. The sealing requirements (CTS 1.7e/d/1.8e) have been incorporated into the Bases of 3.6.1 (Background). Further discussion of this change is also given in change description 1-01 of CTS Section 3.6.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
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.	Yes	Yes	Yes	Yes
01-02 A	The definitions for analog COT and digital COT would be combined into a single definition of COT in accordance with NUREG-1431.	No, DCPP CTS does not include the digital COT definition.	Yes	No, do not have the digital COT definition.	No, "Digital" is not included in CTS.
01-03 M	The definition of CHANNEL CALIBRATION is reworded. The revised wording provides additional detail concerning calibration of instrument channels with RTDs or thermocouples.	Yes	Yes	Yes	Yes
01-04 ~~X~~LG	This definition would no longer be used and the specifications in Section 3.6 ~~and Administrative Controls~~ would be revised accordingly. The CTS definition for CONTAINMENT INTEGRITY would be ~~relocated to the Administrative Controls Section.~~ deleted. It has been replaced with the new requirement for Containment to be OPERABLE.	Yes	Yes of ITS 3.6.1	Yes Q3.6.1-1	Yes, see also ITS 5.5.6 and 5.5.16.
01-05 A	The CTS definition for CONTROLLED LEAKAGE would be deleted. The definition is not required because ITS LCO 3.5.5 ensures that RCP seal injection flow remains within limits.	Yes	Yes	No, see Change Number 01-28-LG.	No, see Change Number 01-28-LG.
01-06 LS1	The CTS definition for CORE ALTERATIONS would be modified to qualify a CORE ALTERATION as movement of fuel, sources, or other reactivity control components.	No, this definition is included in the DCPP CTS.	Yes	Yes	Yes
01-07 A	The location of the thyroid dose conversion factors used for the calculation of DOSE EQUIVALENT I-131 have been added.	Yes	No, already in CTS.	No, already in CTS.	No, already in CTS.

JLS CONVERSION TO IMPROVED TECHNICAL SPECIFICATIONS

CTS 3/4.6 – CONTAINMENT SYSTEMS
ITS 3.6 – CONTAINMENT SYSTEMS

RESPONSE TO RAIS AND LICENSEE INITIATED ADDITIONAL CHANGES

CONTAINMENT ~~INTEGRITY~~

Q3.6.0-1

01-07-A

LIMITING CONDITION FOR OPERATION

3.6.1.1 CONTAINMENT ~~INTEGRITY~~ shall be ~~maintained~~ OPERABLE. 01-01-LG

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

A

Without CONTAINMENT ~~INTEGRITY~~ inoperable, restore CONTAINMENT ~~INTEGRITY~~ to OPERABLE within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 01-01-LG Q3.6.1-1

SURVEILLANCE REQUIREMENTS

4.6.1.1 CONTAINMENT ~~INTEGRITY~~ shall be demonstrated OPERABLE: 01-02-A

a. At least once per 31 days by verifying that all penetrations*# not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, ~~or~~ deactivated automatic valves secured in their positions, or check valve with flow through the valve secured except for valves that are open under administrative control as permitted by Specification 3.6.3. Isolation devices in high radiation areas may be verified by administrative means. 01-06-LS19 1-03-A 01-04-LS1

b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3. 01-05-A

*Except valves, blind flanges, and deactivated automatic valves which are located inside the containment ~~and are locked, sealed, or otherwise secured in the closed position~~. These penetrations# shall be verified closed during each COLD SHUTDOWN except such verification need not be performed more often than once per 92 days. 01-06-LS19

Except when closed by manual valves that are locked, sealed, or otherwise secured and blind flanges. If locked, sealed, or otherwise secured manual valves, blind flanges, and deactivated automatic valves are closed to satisfy an ACTION (e.g., 3.6.3) the position must be verified but may be verified by administrative means. 01-06-LS19

Q3.6.1-5

c. By performing containment leakage rate testing, except for containment air lock testing, in accordance with the Containment Leakage Rate Testing Program. 02-01-A

DESCRIPTION OF CHANGES TO TS SECTION 3/4.6

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	~~LG~~ A	~~CONTAINMENT INTEGRITY is no longer a defined term in NUREG-1431. The requirements for containment OPERABILITY, including the requirements previously found in the CONTAINMENT INTEGRITY definition, are discussed in the expanded Bases of the containment limiting condition for operation (LCO). This change is consistent with NUREG-1431.~~ Insert Q3.6.1-1
01-02	A	Consistent with NUREG-1431, this requirement to verify the penetration flow path is isolated is now addressed by improved Technical Specification (ITS) 3.6.3, Containment Isolation Valves, Condition A, B, and C ~~and [D]~~ and Surveillance Requirements (SR) 3.6.3.3 and SR 3.6.3.4. Q3.6.3-28
01-03	A	The ACTION statements are revised to incorporate the NUREG-1431 alternative isolation method of a "check valve with the flow through the valve secured." This isolation method is provided in NUREG-1431 and is considered an acceptable variation of a de-activated automatic valve.
01-04	LS1	A Note is added to valve and blind flange SRs consistent with NUREG-1431. The Note allows verification of valves, flanges, and isolation devices located in high radiation areas to be verified by use of administrative means. This change is less restrictive in that the CTS SR 4.6.1.1 has an exception to valves, blind flanges, and deactivated automatic valves which are located inside containment and are locked, sealed, or otherwise secured in the closed position. These valves shall be verified closed during each COLD SHUTDOWN. However, under CTS, if an area outside of containment becomes a high radiation area, we would still be required to enter the area to verify the closed positions. The ITS would allow verification of all areas that are high radiation areas or become high radiation areas to be verified by administrative means once they have been verified to be in the proper position. This is considered acceptable, since access to these areas is restricted for ALARA reasons. Therefore, the probability of misalignment of these devices, once they have been initially verified in the proper position, is small.
01-05	A	Consistent with NUREG-1431, this requirement is addressed by SR 3.6.2.1 in ITS 3.6.2, Containment Air Locks Required Actions.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-01 ~~LO~~ A	~~CONTAINMENT INTEGRITY is no longer a defined term in NUREG-1431. The requirements for containment OPERABILITY, including the requirements previously found in the CONTAINMENT INTEGRITY definition, are discussed in the expanded Bases of the containment LCO.~~ Insert Q3.6.1-1	Yes	Yes	Yes	Yes
01-02 A	Consistent with NUREG-1431, this SR to verify the penetration flow path is isolated is addressed by ITS 3.6.3, Containment Isolation Valves.	Yes	Yes	Yes	Yes
01-03 A	An equal alternative isolation method of a "check valve with the flow through the valve secured" is added to the ACTION statements.	Yes	Yes	Yes	Yes
01-04 LS1	A note is added allowing valves, flanges, and isolation devices located in high radiation areas to be verified by use of administrative means.	Yes	Yes	Yes	Yes
01-05 A	This requirement is addressed by 3.6.2, Containment Air Locks Required Actions.	Yes	Yes	Yes	Yes
01-06 LS19	Only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed.	Yes	Yes	Yes	Yes
02-01 A	The Containment Leakage LCO is now addressed by ITS 3.6.1, Containment.	Yes	Yes	Yes	Yes
02-02 A	The wording "prior to increasing the Reactor Coolant System temperature above 200°F" is replaced by the equivalent requirement of "prior to the first unit startup following testing performed in accordance with the Containment Leakage Rate Testing Program."	~~Yes~~ No, See Amendments 120/118 (3.6.1.2 no longer in CTS).	Yes Q3.6.1-5	No, 3.6.1.2 not in CTS.	No, 3.6.1.2 not in CTS.
02-03 A	CPSES testing requirements for containment air locks are now provided in ITS 3.6.2 for Containment Air Locks.	No	Yes	No	No
01-07 A	INSERT				Q3.6.0-1

3.6 Encl 3A - page 1

01-01-A Consistent with NUREG-1431, Improved TS 3.6.1 would retain requirements currently specified in CTS 3/4.6.1.1, "CONTAINMENT INTEGRITY." [ ] Meeting containment leakage requirements would be made a direct condition of containment OPERABILITY through SR 3.6.1.1. In addition, the term CONTAINMENT INTEGRITY has not been retained as a defined term in the ITS. The requirements for containment OPERABILITY, including the requirements previously found in the CONTAINMENT INTEGRITY definition, would be placed in the Bases for TS 3.6.1. (See the discussion of the deletion of the defined term CONTAINMENT INTEGRITY in change description 1-04 of CTS Section 1.0.).[ ] These changes would be classified as Administrative (A).

3.6 Encl 3B - page 1

01-01-A Improved TS 3.6.1 would retain requirements currently specified in CTS 3/4.6.1.1, "CONTAINMENT INTEGRITY."[ ] The proposed change would no longer address containment leakage in a separate specification.

ADDITIONAL INFORMATION NO: Q 3.6.1-2 **APPLICABILITY:** DC, CP, WC

REQUEST:

DOC 1-04 A (CTS 1.0)
DOC 1-01 LG
CTS 1.7.b (1.8.b for Diablo Canyon)
CTS 3/4.6.1.1
ITS B3.6.1. Bases - BACKGROUND

CTS 1.7 (1.8 in Diablo Canyon) defines CONTAINMENT INTEGRITY. A markup of CTS 1.7/1.8 is provided in the CTS markup of CTS 1.0. DOC 1-04 A (CTS 1.0) states that the definition of CONTAINMENT INTEGRITY is deleted from the CTS/ITS. DOC 1-01 LG in CTS 3.6 states that the definition requirements have been relocated to the Bases for ITS 3.6.1. Both of these justifications are incorrect. CTS 1.7.b/1.8.b states that "All equipment hatches are closed and sealed." ITS B3.6.1 Bases - BACKGROUND states the following: "To maintain this leak tight barrier: c. All equipment hatches are closed; and..." The requirement for sealing the equipment hatches has been deleted. No justification is provided for this Less Restrictive change.

Comment: Provide a discussion and justification for this Less Restrictive change.

FLOG RESPONSE: Consistent with the current requirements of CTS 1.7.b (1.8.b for Diablo Canyon), the words "and sealed" have been added to the ITS B3.6.1 Bases - Background statement "c. All equipment hatches are closed . . ."

Further, DOC 1-04 (CTS 1.0) has been revised to include the relocation of CTS 1.7.b (1.8.b for Diablo Canyon) to the Bases of ITS 3.6.1 as a Less Restrictive (LG) change. See response to Q 3.6.1-1.

DOC 1-04 LG (CTS 1.0) now reads:

"The definition of CONTAINMENT INTEGRITY is deleted on the basis that it does not appear in NUREG-1431. It has been replaced with the new requirement of Improved TS 3.6.1 for containment to be OPERABLE. The details of this definition describe what constitutes an OPERABLE containment. Thus, they would be incorporated into the Bases for improved TS LCO 3.6.1 and are reflected in various Surveillance Requirements for ITS 3.6.1, 3.6.2, and 3.6.3. This change is proposed to conform to NUREG-1431, and it is categorized as Less Restrictive (LG) because information of a descriptive nature would be moved to the Bases of the Improved TS.

For the individual statements within the definition (CTS 1.7a/1.8a, 1.7c/1.8c, 1.7d/e/1.8d, and 1.7f) that are used as the basis for various ITS SRs that would be retained in ITS 3.6.1, 3.6.2, and 3.6.3, these changes are categorized as Administrative. The sealing requirements (CTS 1.7e/d/1.8e) have been incorporated into the Bases of 3.6.1 (Background). Further discussion of this change is also given in change description 1-01 of CTS Section 3.6."

ATTACHED PAGES:

Encl 5B B 3.6-1

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1 Containment ~~(Atmospheric)~~

BASES

BACKGROUND

The containment consists of the concrete reactor building, its steel liner, and the penetrations through this structure. The structure is designed to contain radioactive material that may be released from the reactor core following a Loss of Coolant ~~Design Basis~~ Accident ~~(DBA)~~. Additionally, this structure provides shielding from the fission products that may be present in the containment atmosphere following accident conditions. CP3.6.1-6

The containment is a reinforced concrete structure with a cylindrical wall, a flat foundation mat with a reactor cavity pit projection, and a ~~shallow~~ hemispherical dome roof. The inside surface of the containment is lined with a carbon steel liner to ensure a high degree of leak tightness during operating and accident conditions.

~~For containments with ungrouted tendons, the cylinder wall is prestressed with a post-tensioning system in the vertical and horizontal directions, and the dome roof is prestressed utilizing a three-way post-tensioning system.~~

The exterior shell and concrete ~~reactor building~~ structure around the reactor vessel (crane wall and bio-shield wall) is required for structural integrity of the containment under Design Basis Accident (DBA) conditions. CP3.6.1-6 The steel liner and its penetrations establish the leakage limiting boundary of the containment. The steel liner additionally provides support and anchorage for safety related piping and electrical raceway. Maintaining the containment OPERABLE limits the leakage of fission product radioactivity from the containment to the environment. SR 3.6.1.1 leakage rate requirements comply with 10 CFR 50, Appendix J, Option B (Ref. 1), as modified by approved exemptions. The isolation devices for the penetrations in the containment boundary are a part of the containment leak tight barrier. To maintain this leak tight barrier:

a. All penetrations required to be closed during accident conditions are either:

   1. capable of being closed by an OPERABLE automatic containment isolation system, or

   2. closed by manual valves, blind flanges, or de-activated automatic valves secured in their closed positions, except as provided in LCO 3.6.3, "Containment Isolation Valves"

b. Each air lock is OPERABLE, except as provided in LCO 3.6.2, "Containment Air Locks";

c. All equipment hatches are closed and sealed; and CP3.6.1-2

d. The ~~pressurized~~ sealing mechanism associated with a penetration (e.g., welds, bellows, or O-rings) is OPERABLE. ~~except as provided in LCO 3.6.[ ]~~.

APPLICABLE SAFETY ANALYSIS

The safety design basis for the containment is that the containment must withstand the pressures and temperatures of the limiting DBA without exceeding the design leakage rate.

The DBAs that result in a challenge to containment OPERABILITY from high pressures and temperatures are a loss of coolant accident (LOCA) and a steam line break ~~and a rod~~

(Continued

ADDITIONAL INFORMATION NO: Q 3.6.1-3 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 1-04 A (CTS 1.0)
DOC 1-01 LG
CTS 1.7.d/e (1.8.e for Diablo Canyon)
CTS 3/4.6.1.1
ITS SR 3.6.1.1 and Associated Bases

CTS 1.7 (1.8 in Diablo Canyon) defines CONTAINMENT INTEGRITY. A markup of CTS 1.7/1.8 is provided in the CTS markup of CTS 1.0. DOC 1-04 A (CTS 1.0) states that the definitions of CONTAINMENT INTEGRITY is deleted from the CTS/ITS. DOC 1-01 LG in CTS 3.6 states that the definition requirements have been relocated to the Bases for ITS 3.6.1. Both of these justifications are incorrect. CTS 1.7.d (1.7.e in Callaway and 1.8.e in Diablo Canyon) specifies that the leakage rates are in accordance with CTS 3.6.1.x. This requirement has not been relocated to the Bases, but is the basis for ITS SR 3.6.1.1. No justification is provided for this Administrative change. See Comment Number 3.6.2-2.

Comment: Provide a discussion and justification for this Administrative change. See Comment Number 3.6.2-2.

FLOG RESPONSE: DOC 1-37 A (CTS 1.0) has been added to read:

"CTS 1.7.d (1.7.e for Callaway and Wolf Creek and 1.8.e for Diablo Canyon) specifies that containment leakage rates are within the limits of CTS [SR 4.6.1.1c]. Improved TS 3.6.1 contains requirements currently specified in CTS [SR 4.6.1.1c]. This requirement is the basis for ITS SR 3.6.1.1. Because meeting containment leakage requirements would be made a direct condition of containment OPERABILITY through SR 3.6.1.1, this change would be classified as Administrative (A)."

Also, see the FLOG response to Comment 3.6.1-1 regarding the relocation of the CONTAINMENT INTEGRITY definition requirements.

ATTACHED PAGES:

1.0 Encl 2	1-2
1.0 Encl 3A	5
1.0 Encl 3B	4

1.~~01~~ DEFINITIONS

CHANNEL FUNCTIONAL TEST

1.7 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels - the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY including required alarm and/~~or~~ trip functions. or — 01-01-A

b. Bistable channels - the injection of a simulated or actual signal into the sensor to verify OPERABILITY including required alarm and/~~or~~ trip functions. or — 01-01-A

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/~~or~~ trip functions. — 01-01-A

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. — 01-30-A

~~CONTAINMENT INTEGRITY~~ — Q3.6.1-1

01-04-X LG

~~1.8 CONTAINMENT INTEGRITY shall exist when:~~

~~a. All penetrations required to be closed during accident conditions are either:~~

~~1. Capable of being closed by an OPERABLE containment automatic isolation valve system, or~~ — Q3.6.3-1 01-35-A

~~2. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.~~

~~b. All equipment hatches are closed and sealed.~~ — Q3.6.2-1 01-36-A

~~c. Each air lock is in compliance with the requirements of Specification 3.6.1.3.~~

~~d. The containment leakage rates are within the limits of specification 3.6.1.2 and~~ ~~(as determined by Surveillance Requirement 4.6.1.1.c are within the limits listed in the Basis for Specification 3.6.1.)~~ Q3.6.1-5

~~e. The sealing mechanism associated with each penetration (e.g., welds, bellows or O-rings) is OPERABLE.~~ — 01-37-A

Q3.6.1-3

~~CONTROLLED LEAKAGE~~ — 01-05-A

~~1.9 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.~~

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, and WOG-90, Rev. 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, the definitions of COT, [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. 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.
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 to clarify the phrase "entire channel;" thus reducing the potential for inconsistent interpretation of the phrase as experienced by a number of plants.
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 Q 3.6.2-1) Q3.6.2-1
1-37	A	(see Insert for Q 3.6.1-3) Q3.6.1-3

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, [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.	Yes	Yes	Yes	Yes
01-31 A	Definitions of specific plant systems which are defined by the plant design are deleted.	Yes	Yes	No, not in CTS	No, not in CTS
01-32 A	The definition of CHANNEL CALIBRATION, COT, [CFT] and TADOT are reworded to be consistent with Industry Traveler TSTF-64. The revised wording clarifies what is meant by "entire channel."	Yes	Yes	Yes	Yes
01-33 A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative."	Yes	Yes	Yes	Yes

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

1.0 Encl 3A - page 5

01-37-A CTS 1.7.d (1.7.e for Callaway and wolf Creek and 1.8.e for Diablo Canyon) specifies that containment leakage rates are within the limits of CTS [SR 4.6.1.1c]. Improved TS 3.6.1 contains requirements currently specified in CTS [SR 4.6.1.1c.] This requirement is the basis for ITS SR 3.6.1.1. Because meeting containment leakage requirements would be made a direct condition of containment OPERABILITY through SR 3.6.1.1, this change would be classified as Administrative (A).

1.0 Encl 3B - page 4

01-37-A CTS 1.7.d (1.7.e for Callaway and wolf Creek and 1.8.e for Diablo Canyon) specifies that containment leakage rates are within the limits of CTS [SR 4.6.1.1c]. Improved TS 3.6.1 contains requirements currently specified in [SR 4.6.1.1c.] This requirement is the basis for ITS SR 3.6.1.1.

Applicability:

DC	Yes
CP	Yes
WC	Yes
CA	Yes

ADDITIONAL INFORMATION NO: Q 3.6.1-5 **APPLICABILITY:** DC, CP

REQUEST:

DOC 2-02 A
CTS 3.0.3
CTS 3.6.1.1 ACTIONS
CTS 3.6.1.2 ACTIONS
ITS 3.6.1 ACTIONS

CTS 3.6.1.2 ACTIONS restrict reactor coolant heat up beyond 200 F if the containment leakage rates are outside established limits. The CTS markup of CTS 3.6.1.2 changes this requirement to restore leakage rates "Prior to the first unit startup following testing performed in accordance with the Containment Leakage Rate Testing Program." This change is characterized as an Administrative change since it is a restatement of CTS 4.0.4/ITS 3.0.4. This change is only partially correct. As currently written and as proposed in the CTS markup, no remedial actions are provided if the reactor coolant temperature is >200 F (MODE 4) and the containment leakage rates are outside established limits. In this case, CTS 3.0.3 or CTS 3.6.1.1 ACTIONS are to be entered since they are equivalent. Because ITS 3.6.1 ACTIONS are the same as both CTS 3.6.1.1 ACTIONS and CTS 3.0.3, the replacement of these CTS ACTION requirements by the ACTIONS of ITS 3.6.1 is an Administrative change which has not been addressed.

Comment: Revise the submittal to address this change in presentation of CTS ACTION requirements and provide a discussion and justification for this Administrative change.

FLOG RESPONSE: For DCPP, License Amendment (LA) 120/118 (dated 2/3/98) eliminates this RAI. LA 120/118 relocated ten TS in accordance with 10 CFR 50.36. Thus, CTS 3/4.6.1.2 and 3/4.6.1.6 no longer exist and DOCs 2-02-A, 2-06-A, 6-02-A, 6-03-TR2, and 6-04-M are no longer applicable to DCPP. CTS 3/4.6.1.2 was relocated to CTS SR 4.6.1.1.c (new) and ECG 45.1 and CTS 3/4.6.1.6 was relocated to ECG 45.2.

For CPSES, DOC 2-02-A has been expanded to address the replacement of the CTS ACTION requirements by the ACTIONS of ITS 3.6.1.

ATTACHED PAGES:

Sec 1.0, Encl 2	1-2
Sec 3.6, Encl 2	3/4 6-1, 3/4 6-2, 3/4 6-3, 3/4 6-9
Sec 3.6, Encl 3A	2, 5
Sec 3.6, Encl 3B	1, 4

CHANNEL FUNCTIONAL TEST

1.7 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels - the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY including required alarm and/~~or~~ trip functions. or — 01-01-A

b. Bistable channels - the injection of a simulated or actual signal into the sensor to verify OPERABILITY including required alarm and/~~or~~ trip functions. or — 01-01-A

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/~~or~~ trip functions. — 01-01-A

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. — 01-30-A

~~CONTAINMENT INTEGRITY~~ — Q3.6.1-1

~~1.8 CONTAINMENT INTEGRITY shall exist when:~~ — 01-04-~~X~~LG

~~a. All penetrations required to be closed during accident conditions are either:~~

~~1. Capable of being closed by an OPERABLE containment automatic isolation valve system, or~~ — Q3.6.3-1, 01-35-A

~~2. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.~~

~~b. All equipment hatches are closed and sealed.~~ — Q3.6.2-1, 01-36-A

~~c. Each air lock is in compliance with the requirements of Specification 3.6.1.3.~~

~~d. The containment leakage rates are within the limits of specification 3.6.1.2 and~~ ~~as determined by Surveillance Requirement 4.6.1.1c are within the limits listed in the Bases for Specification 3.6.1.1~~ — Q3.6.1-5

~~e. The sealing mechanism associated with each penetration (e.g., welds, bellows or O-rings) is OPERABLE.~~ — 01-37-A

Q3.6.1-3

~~CONTROLLED LEAKAGE~~

~~1.9 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.~~ — 01-05-A

3/4.6.1 CONTAINMENT

CONTAINMENT ~~INTEGRITY~~

Q3.6.0-1
01-07-A

LIMITING CONDITION FOR OPERATION

3.6.1.1 CONTAINMENT ~~INTEGRITY~~ shall be ~~maintained~~ OPERABLE. 01-01-LG

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

A

Without CONTAINMENT ~~INTEGRITY~~ inoperable, restore CONTAINMENT ~~INTEGRITY~~ to OPERABLE within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 01-01-LG Q3.6.1-1

SURVEILLANCE REQUIREMENTS

4.6.1.1 CONTAINMENT ~~INTEGRITY~~ shall be demonstrated OPERABLE: 01-02-A

a. At least once per 31 days by verifying that all penetrations*# not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, ~~or~~ deactivated automatic valves secured in their positions, or check valve with flow through the valve secured except for valves that are open under administrative control as permitted by Specification 3.6.3. Isolation devices in high radiation areas may be verified by administrative means. 01-06-LS19 1-03-A 01-04-LS1

b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3. 01-05-A

*Except valves, blind flanges, and deactivated automatic valves which are located inside the containment ~~and are locked, sealed, or otherwise secured in the closed position~~. These penetrations# shall be verified closed during each COLD SHUTDOWN except such verification need not be performed more often than once per 92 days. 01-06-LS19

Except when closed by manual valves that are locked, sealed, or otherwise secured and blind flanges. If locked, sealed, or otherwise secured manual valves, blind flanges, and deactivated automatic valves are closed to satisfy an ACTION (e.g., 3.6.3) the position must be verified but may be verified by administrative means. 01-06-LS19

Q3.6.1-5

c. By performing containment leakage rate testing, except for containment air lock testing, in accordance with the Containment Leakage Rate Testing Program. 02-01-A

Q3.6.1-5

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

~~02-01-A~~

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited in accordance with the Containment Leakage Rate Testing Program.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the measured overall integrated containment leakage rate exceeding 1.0 L_a, within 1 hour initiate action to be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the overall integrated leakage rate to less than or equal to 0.75 L_a, and the combined leakage rate for all penetrations subject to Type B and C tests to less than ~~or equal to~~ 0.60 L_a prior to ~~increasing the Reactor Coolant System temperature above 200°F~~ the first unit startup following testing performed in accordance with the Containment Leakage Rate Testing Program.

~~02-08-A~~

~~02-02-A~~

Q3.6.1-5

02-01-A

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the test schedule and shall be determined in conformance with the criteria specified in the Containment Leakage Rate Testing Program.

φ3.6.1-5

LIMITING CONDITION FOR OPERATION

3.6.1.6 The structural integrity of the containment shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.6. 06-02-A

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the structural integrity of the containment not conforming to the above requirements, restore the structural integrity to within the limits within ~~24~~ 1 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 06-04-M

SURVEILLANCE REQUIREMENTS

4.6.1.6.1 Containment Surfaces The structural integrity of the exposed accessible interior and exterior surfaces of the containment, including the liner plate, shall be determined during shutdown by a visual inspection of these surfaces. This inspection shall be performed in accordance with the Containment Leakage Rate Testing Program to verify no apparent changes in appearance or other abnormal degradation. 06-02-A

~~4.6.1.6.2 Reports Any abnormal degradation of the containment structure detected during the above required inspections shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2 within 15 days. This report shall include a description of the condition of the concrete, the inspection procedure, the tolerances on cracking, and the corrective actions taken.~~ 06-03-TR2

CHANGE NUMBER	NSHC	DESCRIPTION
01-06	LS19	The CTS requires all penetrations not capable of being closed by an OPERABLE containment automatic isolation valve (and required to be closed for accident conditions) be verified closed on a 31 day frequency, except for valves, blind flanges, and deactivated automatic valves which are located inside containment and locked closed, sealed, or otherwise secured in a closed position. These excepted penetrations were to be verified closed during each cold shutdown but not more often than once per 92 days. Consistent with Traveler TSTF-45, Rev. 1 only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed at the once per COLD SHUTDOWN frequency. Penetrations (inside or outside containment) which are isolated by manual valves and blind flanges that are locked, sealed or otherwise secured are not required to be verified closed, since they are verified to be in the correct position prior to locking/securing. CTS Surveillance 4.6.1.1 is incorporated into ITS SR 3.6.3.3 and SR 3.6.3.4 and into the redundant requirements of ITS 3.6.3, Required Action A.2, C.2, and [D.2]. As discussed above, the ITS surveillances were modified consistent with TSTF-45. The redundant Required Actions were also modified in a subsequent Traveler (WOG-91). The TSTF-45 modifications to the ITS surveillances and the WOG-91 modifications to Required Actions, while similar, differed in that the Required Actions still require some verification of position of valves that are locked closed, sealed or otherwise secured, although this verification may be performed via administrative means. The surveillances require no additional verification.
01-07	A	Insert Q3.6.0-1
02-01	A	Consistent with NUREG-1431, the Containment Leakage LCO is now included in ITS 3.6.1, Containment LCO. Q3.6.1-5
02-02	A	~~The wording "prior to increasing the Reactor Coolant System temperature above 200°F" is replaced by the equivalent requirement of "prior to the first unit startup following testing performed in accordance with the Containment Leakage Rate Testing Program." The fact that the Applicability of the new Containment LCO is MODE 1-4 and that SR 3.0.4 requires surveillances to be performed before entering the MODE of Applicability, ensures that the required leakage rate testing is performed and that the as-left test acceptance criteria are met before entry into MODE 4. This change is consistent with NUREG-1431. This requirement is now included in ITS 5.5.16, the Containment Leak Rate Test Program.~~ Not Applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-03	A	This change is not applicable to Diablo Canyon Power Plant (DCPP). See Conversion Comparison Table (Enclosure 3B).
02-04	A	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
02-05	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

CHANGE NUMBER	NSHC	DESCRIPTION
03-12	A	The statement that Specification 3.0.4 does not apply is no longer needed as revised ACTIONS consistent with NUREG-1431 permit continued operation for an unlimited period of time.
03-13 03-14 03-15	A A A	Consistent with NUREG-1431, a Note is added to the ACTIONS to enter applicable Conditions and Required ACTIONS of the "Containment" LCO when leakage results in exceeding the overall containment leakage rate. This is current operating practice per TS requirement CTS 3.6.1.1. Therefore, this change is considered an administrative change in format. Q3.6.2-7 Insert Insert Q3.6.2-8
05-01	LG	The method for calculating containment average temperature and the locations where measurements are taken are moved to the Bases. This level of detail in the TS is not consistent with NUREG-1431. The improved STS Bases is licensee controlled under the Bases Control Program in the Administrative Controls section of the improved STS. Insert Q3.6.5-1
06-01		Not Used.
06-02	A	~~The structural integrity requirements of containment are contained in ITS 3.6.1. The inspection requirements associated with structural integrity of the exposed accessible interior and exterior containment surfaces, are contained in Appendix J, Option B and in Regulatory Guide (RG) 1.163. The requirement to perform visual inspections is in ITS Surveillance Requirement (SR) 3.6.1.1 which refers to the containment Leakage Rate Testing Program as controlled by ITS 5.5.16.~~
06-03	TR2	~~Consistent with NUREG-1431, the reporting requirement is being deleted. 10 CFR 50.72 and 10 CFR 50.73 establish the reporting requirements.~~
06-04	M	~~The ACTION is moved to ITS 3.6.1, Condition A and B. The ITS requirements are more severe in that only 1 hour allowed outage time (AOT) is provided while the CTS provides a 24 hour AOT. The shorter AOT is acceptable because a containment which may not be able to act as a boundary as designed could have a significant adverse impact on the consequences of an accident.~~
07-01	A	Consistent with NUREG-1431, the LCO and SRs for containment ventilation/purge valves are now included in ITS 3.6.3 for Containment Isolation Valves.
07-02	LS9	Consistent with NUREG-1431, the Required Action for a containment ventilation/purge valve with a leakage rate which exceeds the acceptance criteria is revised to allow continued operation if the penetration flow path is isolated within 24 hours. This action is in lieu of requiring a shutdown if the valve leakage rate is not restored to an acceptable value within 24 hours. This is considered acceptable because with the associated penetrations isolated per the proposed ACTION requirement, no accident is credible as a result of the leaking valve.

Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3.3).

Q3.6.1-5

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-01 ~~LS~~ A	~~CONTAINMENT INTEGRITY is no longer a defined term in NUREG-1431. The requirements for containment OPERABILITY, including the requirements previously found in the CONTAINMENT INTEGRITY definition, are discussed in the expanded Bases of the containment LCO.~~ Insert Q3.6.1-1	Yes	Yes	Yes	Yes
01-02 A	Consistent with NUREG-1431, this SR to verify the penetration flow path is isolated is addressed by ITS 3.6.3, Containment Isolation Valves.	Yes	Yes	Yes	Yes
01-03 A	An equal alternative isolation method of a "check valve with the flow through the valve secured" is added to the ACTION statements.	Yes	Yes	Yes	Yes
01-04 LS1	A note is added allowing valves, flanges, and isolation devices located in high radiation areas to be verified by use of administrative means.	Yes	Yes	Yes	Yes
01-05 A	This requirement is addressed by 3.6.2, Containment Air Locks Required Actions.	Yes	Yes	Yes	Yes
01-06 LS19	Only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed.	Yes	Yes	Yes	Yes
02-01 A	The Containment Leakage LCO is now addressed by ITS 3.6.1, Containment.	Yes	Yes	Yes	Yes
02-02 A	The wording "prior to increasing the Reactor Coolant System temperature above 200°F" is replaced by the equivalent requirement of "prior to the first unit startup following testing performed in accordance with the Containment Leakage Rate Testing Program."	~~Yes~~ NO, See Amendments 120/118 (3.6.1.2 no longer in CTS).	Yes Q3.6.1-5	No, 3.6.1.2 not in CTS.	No, 3.6.1.2 not in CTS.
02-03 A	CPSES testing requirements for containment air locks are now provided in ITS 3.6.2 for Containment Air Locks.	No	Yes	No	No
01-07 A	INSERT				Q3.6.0-1

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
06-01	Not used	N/A	N/A	N/A	N/A
06-02 A	The inspection requirements associated with structural integrity of the exposed accessible interior and exterior containment surfaces, are contained in Appendix J, Option B and in RG 1.163.	~~Yes~~ No, see Amendments 120/118. 3.6.1.6 no longer in CTS	Yes Q3.6.1-5	No, 3.6.1.6 not in CTS.	No, 3.6.1.6 not in CTS.
06-03 TR2	Reporting requirement for containment structural integrity are deleted.	~~Yes~~	Yes	No, 3.6.1.6 not in CTS.	No, 3.6.1.6 not in CTS.
06-04 M	AOT for containment structural integrity not established decreased from 24 hours to 1 hour.	~~Yes~~	Yes	No, 3.6.1.6 not in CTS.	No, 3.6.1.6 not in CTS.
07-01 A	The LCO and SRs for containment ventilation/purge valves are now included in ITS 3.6.3 for Containment Isolation Valves.	Yes	Yes	Yes	Yes
07-02 LS9	The Required Actions for a containment ventilation/purge valve with a leakage rate which exceeds the acceptance criteria is revised to be stated on a per penetration flow path bases.	Yes	Yes	Yes	Yes
07-03 ~~X~~ LS261	Clarification is added to allow one isolation valve in a penetration flow path to be opened for repairs when performing the Required Actions for leakage rate not within limits..	~~Yes~~ No, see CN 11-01-LS13	Yes Q3.6.3-5	Yes	Yes
07-04 ~~X~~ LG	The time limit restrictions on opening the [pressure/vacuum relief] and the requirements to periodically accumulate the time that the valves have been open would be ~~relocated~~ moved to licensee controlled documents.	Yes, relocated to an ECG. Q3.6.3-15	No, CPSES does not have restrictions on these valves.	Yes, relocated to USAR Chapter 16	Yes, relocated to FSAR Chapter 16
07-05 A	An ACTION is added for two valves inoperable in one penetration flow path.	Yes	Yes	Yes	Yes

ADDITIONAL INFORMATION NO: Q 3.6.1-6 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 2-05 LG
DOC 2-06 A
JFD 3.6-1
CTS 4.6.1.1.c (Wolf Creek)
CTS 4.6.1.1.d (Callaway)
CTS 3/4.6.1.2 (Diablo Canyon and Comanche Peak)
STS SR 3.6.1.1
ITS SR 3.6.1.1 and Associated Bases

CTS 4.6.1.1.c/d and 3/4.6.1.2 require leak rate testing in accordance with the Containment Leakage Rate Testing Program which is based on the requirements of 10 CFR 50 Appendix J, Option B. STS SR 3.6.1.1 requires the visual examination and leakage rate testing be performed in accordance with 10 CFR 50 Appendix J as modified by approved exemptions. ITS SR 3.6.1.1 modifies STS SR 3.6.1.1 to conform to CTS 4.6.1.1.c/d and 3/4.6.1.2 as modified in the CTS markup. The STS is based on Appendix J, Option A while the CTS and ITS are based on Appendix J, Option B. Changes to the STS with regards to Option A versus Option B are covered by a letter from Mr. Christopher I. Grimes to Mr. David J. Modeen, NEI, dated 11/2/95 and TSTF-52. While the ITS SR 3.6.1.1 differences from STS SR 3.6.1.1 are in conformance with the letter and TSTF 52 as modified by staff comments, the changes to the ITS Bases as well as ITS 3.6.2 and ITS 3.6.3 and their associated Bases are not in conformance. See Comment Number 3.6.3-28 for additional concerns with regards to CTS 4.6.1.2.c and 4.6.1.2.d at Comanche Peak. Also see Comment Numbers 3.6.0-2, 3.6.2-5, 3.6.3-27, 3.6.3.28 and 3.6.3-37.

Comment: Licensees should revise their submittals to conform to the 11/2/95 letter and TSTF-52 as modified by the staff. See Comment Numbers 3.6.0-2, 3.6.2-5, 3.6.3-27, 3.6.3.28, and 3.6.3-37.

FLOG RESPONSE: The 11/2/95 letter from C. Grimes (NRC) to D. Modeen (NEI), "TSTF-52 proposed Revision 1" (which includes the changes proposed by the staff) was reviewed for incorporation into the ITS. Based on this review, the ITS Bases have been revised to incorporate proposed Revision 1 of TSTF-52. Revision 1 addresses the NRC comments on Revision 0 of this TSTF but has not been approved by the Tech Spec Task Force. The FLOG will continue to evaluate any NRC/industry approved revisions to TSTF-52 and will incorporate applicable changes into the ITS submittal as appropriate.

ATTACHED PAGES:

Sec. 1.0, Encl 2
Sec. 1.0, Encl 3A Page 2
Sec. 1.0, Encl 3B Page 2
Sec. 1.0, Encl 5A Traveler Status Page, 1.1-3

Sec. 1.0, Encl 6A	Page 3
Sec. 1.0, Encl 6B	Page 2
Sec. 3.0, Encl 5A	Traveler Status Page
Sec. 3.0, Encl 5B	B 3.0-10
Sec. 3.6, Encl 5A	Traveler Status Page, 3.6-7
Sec 3.6, Encl 5B	B 3.6-1, B 3.6-2, and B 3.6-3
Sec. 5.0, Encl 5A	Traveler Status Page, 5.0-30

~~reduce radioactive gaseous effluents by collecting Reactor Coolant System off gases from the Reactor Coolant System and providing for delay or holdup for the purpose of reducing the total radioactivity prior to release to the environment.~~

(new) L_a The maximum allowable primary containment leakage rate L_a shall be 0.10 % of primary containment air weight per day at the calculated peak containment pressure (P_a). ~~1.10-A~~

Q3.6.1-6

CHANGE NUMBER	NSHC	DESCRIPTION
01-08	A	The CTS definitions for ENGINEERED SAFETY FEATURES (ESF) RESPONSE TIME and REACTOR TRIP SYSTEM (RTS) RESPONSE TIME would be modified to be consistent with NUREG-1431. In addition, the term "measured" would be replaced by "verified" to be consistent with the requirements of ITS Surveillance Requirement (SR) 3.3.1.16 and SR 3.3.2.10 to verify response time is within limits. The addition of the statement that response time may be verified by means of any series of sequential, overlapping, or total steps so that the entire response time is verified, is administrative in nature. This is consistent with the methodology presently described in the CTS Bases for demonstrating total channel response time.
01-09	A	The CTS definition for FREQUENCY NOTATION (and Table 1.1, FREQUENCY NOTATION) would be deleted to be consistent with NUREG-1431. The acronyms defined in Table 1.1, FREQUENCY NOTATION, are no longer used in NUREG-1431. Surveillance frequencies are specified in NUREG-1431; thereby, obviating the definition. This is a nontechnical change made to conform to NUREG-1431.
01-10	~~A~~	~~The definition for maximum allowable primary containment leakage rate (L_a) would be added in the ITS to be consistent with NUREG-1431. This addition has been determined to be an administrative change on the basis that this definition has simply been [copied] from the [CTS Administrative Controls 6.8.4.j] to the definitions.~~ Not used Φ3.6.1-6
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 to be consistent with NUREG-1431. This is a nontechnical change since it will not alter the manner in which LEAKAGE is accounted for and treated from present practice. The definition of UNIDENTIFIED LEAKAGE has been expanded to include "except RCP seal water [injection or leakoff,]" to be consistent with NUREG-1431.
01-12	A	The CTS definition for MEMBER OF THE PUBLIC, would be deleted to be consistent with NUREG-1431. This definition would be deleted on the basis that it is defined in 10 CFR 20.1003 and 40 CFR 190.
01-13	A	The CTS definition of the Offsite Dose Calculation Manual (ODCM) [OFFSITE DOSE CALCULATION PROCEDURE (ODCP), ENVIRONMENTAL RADIOLOGICAL MONITORING PROCEDURE (ERMP), and RADIOLOGICAL MONITORING AND CONTROLS PROGRAM (RMCP)] would be [merged where duplications occur and would be] incorporated into the Administrative Controls Section 5.5.1 of the ITS. [These] changes [are] nontechnical because the definitions of the ODCM [ODCP, ERMP, AND RMCP] will be [combined and] moved to another section of the ITS.

TECHNICAL SPECIFICATION CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
01-10 ~~A2~~	~~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
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 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
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

Q3.6.1-6

Industry Travelers Applicable to Section 1.0

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-19, Rev. 1	Not Incorporated	NA	Not NRC approved as of traveler cut-off date.
TSTF-39, Rev. 1	Incorporated	1.1-9	
TSTF-64	Incorporated	1.1-1	
TSTF-88	Incorporated	1.1-8	
TSTF-111, Rev. 1	Incorporated	1.1-5	
WOG-67, Rev. 1	Incorporated	1.1-6	
WOG-74, Rev. 1	Incorporated	1.1-3	
WOG-90, Rev. 1	Incorporated	1.1-11	
TSTF-52	Incorporated	1.1-13	Incorporated Draft Rev. 1 per Q3.6.1-6

Q3.6.1-6

1.1 Definitions (continued)

CORE OPERATING LIMITS REPORT (COLR)	The COLR is the unit specific document that provides cycle specific parameter limits for the current reload cycle. These cycle specific parameter limits shall be determined for each reload cycle in accordance with Specification 5.6.5. Plant operation within these limits is addressed in individual Specifications.
DOSE EQUIVALENT I-131	DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) that alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in ~~[Table III of TID-14844, AEC, 1962, "Calculation of Distance Factors for Power and Test Reactor Sites," or those listed in Table E-7 of NRC Regulatory Guide 1.109, Rev. 1, October, 1977, or ICRP 30, Supplement to Part 1, page 192-212, Table titled, "Committed Dose Equivalent in Target Organs or Tissues per Intake of Unit Activity".]~~ B
$\bar{E}$-AVERAGE DISINTEGRATION ENERGY	$\bar{E}$ shall be the average (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MeV) for isotopes, other than iodines, with half lives > ~~[15~~ 10 ~~]~~ minutes, making up at least 95% of the total non-iodine activity in the coolant. B-PS
ENGINEERED SAFETY FEATURE (ESF) RESPONSE TIME	The ESF RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its ESF actuation setpoint at the channel sensor until the ESF equipment is capable of performing its safety function (i.e., the valves travel to their required positions, pump discharge pressures reach their required values, etc.). Times shall include diesel generator starting and sequence loading delays, where applicable. The 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
L_a	The maximum allowable primary containment leakage rate, L_a, shall be ~~[~~0.10~~]~~ % of primary containment air weight per day at the calculated peak containment pressure (P_a). B-PS

3.6.1-6

(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.
1.1-13	Insert Q3.6.1-6

DIFFERENCE FROM NUREG-1431		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
1.1-9	The definition of COT,[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.	Yes	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

1.1-13 Insert Q3.6.1-6

Industry Travelers Applicable to Section 3.0

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

BASES

SR 3.0.1 (Continued)

Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE. This includes ensuring applicable Surveillances are not failed and their most recent performance is in accordance with SR 3.0.2. Post maintenance testing may not be possible in the current MODE or other specified conditions in the Applicability due to the necessary unit parameters not having been established. In these situations, the equipment may be considered OPERABLE provided testing has been satisfactorily completed to the extent possible and the equipment is not otherwise believed to be incapable of performing its function. This will allow operation to proceed to a MODE or other specified condition where other necessary post maintenance tests can be completed.

SR 3.0.2

SR 3.0.2 establishes the requirements for meeting the specified Frequency for Surveillances and any Required Action with a Completion Time that requires the periodic performance of the Required Action on a "once per . . ." interval.

SR 3.0.2 permits a 25% extension of the interval specified in the Frequency. This extension facilitates Surveillance scheduling and considers plant operating conditions that may not be suitable for conducting the Surveillance (e.g., transient conditions or other ongoing Surveillance or maintenance activities).

The 25% extension does not significantly degrade the reliability that results from performing the Surveillance at its specified Frequency. This is based on the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the SRs. The exceptions to SR 3.0.2 are those Surveillances for which the 25% extension of the interval specified in the Frequency does not apply. These exceptions are stated in the individual Specifications. ~~An example of where SR 3.0.2 does not apply is the Containment Leakage Rate Testing Program. a Surveillance with a Frequency of "in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions." The requirements of regulations take precedence over the TS. The TS cannot in and of themselves extend a test interval specified in the regulations.~~

remove strike-out

Insert

φ3.6.1-6

(Continued)

Industry Travelers Applicable to Section 3.6

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-17, Rev. 1	Incorporated	3.6-2	NRC approved.
TSTF-30, Rev. ~~1~~ 2 TR 3.6-002	Incorporated	3.6-4	Not applicable to Wolf Creek and Callaway.
TSTF-45, Rev. 1	Incorporated	3.6-5	NRC approved.
TSTF-46, Rev. 1	Incorporated	3.6-7	NRC approved.
TSTF-51	Not incorporated	N/A	Not NRC approved as of traveler cut-off date.
TSTF-52 Q3.6.1-6	Incorporated	3.6-1	Incorporated draft Rev. 1 per Q3.6.1-6
TSTF-145	Not incorporated	N/A	NRC approved as of traveler cut-off date.
~~WOG-91~~ TSTF-269 Q3.6.3-11	Incorporated	3.6-11, 3.6-12	

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.2.1	----------NOTES---------- 1. An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. 2. Results shall be evaluated against acceptance criteria ~~of~~ applicable to SR 3.6.1.1 in ~~accordance with 10 CFR 50, Appendix J, as modified by approved exemptions~~ with the Containment Leakage Rate Testing Program. ----------	3.6-1 Q3.6.1-6
	Perform required air lock leakage rate testing in accordance with ~~10 CFR 50, Appendix J, as modified by approved exemptions.~~ ~~The acceptance criteria for air lock testing are:~~ ~~a. Overall air lock leakage rate is ≤ [0.05 L_a] when tested at ≥ P_a.~~ ~~b. For each door, leakage rate is ≤ [.01 L_a] when tested at ≥ [psig].~~ the Containment Leakage Rate Testing Program.	~~NOTE SR 3.0.2 is not applicable~~ In accordance with ~~10 CFR 50, Appendix J, as modified by approved exemptions~~ the Containment Leakage Rate Testing Program 3.6-1
SR 3.6.2.2	~~NOTE Only required to be performed upon entry or exit through the containment air lock.~~ Verify only one door in the air lock can be opened at a time.	3.6-2 ~~184 days~~ 24 months

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1 Containment ~~(Atmospheric)~~

BASES

BACKGROUND

The containment consists of the concrete reactor building, its steel liner, and the penetrations through this structure. The structure is designed to contain radioactive material that may be released from the reactor core following a Loss of coolant ~~Design Basis~~ Accident ~~(DBA)~~. Additionally, this structure provides shielding from the fission products that may be present in the containment atmosphere following accident conditions. Φ3.6.1-6

The containment is a reinforced concrete structure with a cylindrical wall, a flat foundation mat with a reactor cavity pit projection, and a ~~shallow~~ hemispherical dome roof. The inside surface of the containment is lined with a carbon steel liner to ensure a high degree of leak tightness during operating and accident conditions.

~~For containments with ungrouted tendons, the cylinder wall is prestressed with a post tensioning system in the vertical and horizontal directions, and the dome roof is prestressed utilizing a three-way post tensioning system.~~

The exterior shell and concrete ~~reactor building~~ structure around the reactor vessel (crane wall and bio-shield wall) is required for structural integrity of the containment under DBA (Design Basis Accident (DBA)) conditions. Φ3.6.1-6 The steel liner and its penetrations establish the leakage limiting boundary of the containment. The steel liner additionally provides support and anchorage for safety-related piping and electrical raceway. Maintaining the containment OPERABLE limits the leakage of fission product radioactivity from the containment to the environment. SR 3.6.1.1 leakage rate requirements comply with 10 CFR 50, Appendix J, Option B (Ref. 1), as modified by approved exemptions. The isolation devices for the penetrations in the containment boundary are a part of the containment leak tight barrier. To maintain this leak tight barrier:

a. All penetrations required to be closed during accident conditions are either:

   1. capable of being closed by an OPERABLE automatic containment isolation system, or

   2. closed by manual valves, blind flanges, or de-activated automatic valves secured in their closed positions, except as provided in LCO 3.6.3, "Containment Isolation Valves"

b. Each air lock is OPERABLE, except as provided in LCO 3.6.2, "Containment Air Locks";

c. All equipment hatches are closed and sealed; and Φ3.6.1-2

d. The ~~pressurized~~ sealing mechanism associated with a penetration (e.g., welds, bellows, or O-rings) is OPERABLE. ~~except as provided in LCO 3.6.[ ]~~.

APPLICABLE SAFETY ANALYSIS

The safety design basis for the containment is that the containment must withstand the pressures and temperatures of the limiting DBA without exceeding the design leakage rate.

The DBAs that result in a challenge to containment OPERABILITY from high pressures and temperatures are a loss of coolant accident (LOCA) and a steam line break ~~and a rod~~

(Continued

BASES

~~ejection accident (REA)~~ (Ref. 2). In addition, release of significant fission product radioactivity within containment can occur from a LOCA ~~or REA~~ or a fuel handling accident. In the DBA analyses, it is assumed that the containment is OPERABLE such that, for the DBAs involving release of fission product radioactivity, release to the environment is controlled by the rate of containment leakage. The containment was designed with an allowable leakage rate of 0.1% of containment air weight per day (Ref. 3). This leakage rate, used to evaluate offsite doses resulting from accidents, is defined in 10 CFR 50, Appendix J, Option B (Ref. 1), as L_a: the maximum allowable containment leakage rate at the calculated peak containment internal pressure (P_a) resulting from the limiting DBA LOCA. The allowable leakage rate represented by L_a forms the basis for the acceptance criteria imposed on all containment leakage rate testing. L_a is assumed to be 0.10% of containment air weight per day in the safety analysis at P_a = 47 psig (Ref. 3).

Satisfactory leakage rate test results are a requirement for the establishment of containment OPERABILITY.

The containment satisfies Criterion 3 of ~~the NRC Policy Statement~~ 10CFR50.36(c)(2)(ii).

LCO

Containment OPERABILITY is maintained by limiting leakage to ≤ 1.0 L_a, except prior to the first startup after performing a required ~~10 CFR 50, Appendix J,~~ Containment Leakage Rate Testing Program leakage test. At this time, ~~the combined Type B and C leakage must be < 0.6 L_a, and the overall Type A leakage must be < 0.75 L_a~~ the applicable ~~Containment Leakage Rate Testing Program~~ leakage limits must be met. φ3.6.1-6

Compliance with this LCO will ensure a containment configuration, including equipment hatch, that is structurally sound and that will limit leakage to those leakage rates assumed in the safety analysis. φ3.6.1-8

Individual leakage rates specified for the containment air lock (LCO 3.6.2) and containment purge supply and exhaust ~~(hydrogen purge)~~ and containment pressure/vacuum relief valves with resilient seals (LCO 3.6.3) ~~are not specifically part of the acceptance criteria of 10 CFR 50, Appendix J. Therefore, leakage rates exceeding~~ → , option B

remove strike out

φ3.6.1-6

(Continued)

BASES

~~these individual limits only~~ result in the containment being inoperable when the leakage results in exceeding the overall acceptance criteria of ~~Appendix J~~ 1.0 L_a.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material into containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, containment is not required to be OPERABLE in MODE 5 to prevent leakage of radioactive material from containment. The requirements for containment during MODE 6 are addressed in LCO 3.9.4, "Containment Penetrations."

ACTIONS

A.1

In the event containment is inoperable, containment must be restored to OPERABLE status within 1 hour. The 1 hour Completion Time provides a period of time to correct the problem commensurate with the importance of maintaining containment during MODES 1, 2, 3, and 4. This time period also ensures that the probability of an accident (requiring containment OPERABILITY) occurring during periods when containment is inoperable is minimal.

B.1 and B.2

If containment cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1

(Ref. 4) Q3.6.1-6

Maintaining the containment OPERABLE requires compliance with the visual examinations and leakage rate test requirements as specified in the Containment Leakage Rate Testing Program which is consistent with Reg Guide 1.163, 1995, and the requirements of 10 CFR 50, Appendix J, Option B (Ref. 1)~~, as modified by approved exemptions~~. Failure to meet air lock ~~and purge valve with resilient seal~~ leakage limits specified in the Containment Leakage Rate Test Program ~~LCO 3.6.2 and LCO 3.6.3~~ does not invalidate the acceptability of these overall leakage determinations unless their contribution to overall Type A, B, and C leakage causes that to exceed limits. As left leakage prior to the first startup after performing a required ~~10 CFR 50, Appendix J,~~ Containment Leakage Rate Testing Program leakage test is required to be < 0.6 L_a for combined Type B and C leakage following an outage or shutdown that included Type B and C testing only, and ≤ 0.75 L_a for overall Type A leakage following an outage or shutdown that included Type A testing. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of ≤ 1.0 L_a. At ≤ 1.0 L_a the offsite dose consequences are bounded by the assumptions of the safety analysis. SR Frequencies are as required by ~~Appendix J, as modified by approved exemptions~~ 10CFR50, App J, Option B. These periodic testing requirements verify that the containment leakage rate does not exceed the leakage rate assumed in the safety analysis. ~~Thus, SR 3.0.2 (which allows frequency extensions) does not apply.~~ Q3.6.1-6

redline

Containment Leakage Rate Testing Program

Insert Reviewers Note

SR 3.6.1.2 should have been shown struck-out since not applicable to DCPP. Q3.6.0-2

1.0, Encl 6A page 3

1.1-13 Traveler TSTF-52, draft Revision 1, deletes the definition of L_a. Since L_a is defined in 10 CFR 50, Appendix J and ITS Section 5.5-15, Containment Leakage Rate Testing Program, it is redundant to include L_a as a definition. As described in NUMARC 93-03, "Writer's Guide for the Restructured Technical Specifications," Specification 1.1 is a list of defined terms and corresponding definitions used throughout the TS. La is not used throughout the TS and is defined in Section 5.5-16.

1.0, Encl 6B page 2

1.1-13 Traveler TSTF-52, draft Revision 1, deletes the definition of L_a. Since L_a is defined in 10 CFR 50, Appendix J and ITS Section 5.5-15, Containment Leakage Rate Testing Program, it is redundant to include L_a as a definition.

Applicability

DC	Yes
CP	Yes
WC	Yes
CA	Yes

3.0, Encl 5B B 3.0-10

Therefore, when a test interval is specified in the regulations, the interval cannot be extended by the TS, and the SR include a Note in the Frequency stating, "SR 3.0.2 is not applicable." An example of an exception when the test interval is not specified in the regulations is the Note in the Containment Leakage Rate Testing Program, "SR 3.0.2 is not applicable." This exception is provided because the program already includes extension of test interval.

3.6, Encl 5B B3.6-3

Reviewer's Note: Regulatory Guide 1.163 and NEI 94-01 include acceptance criteria for as-left and as-found Type A leakage rates and combined Type B and C leakage rates, which may be reflected in the Bases.

Industry Travelers Applicable to CTS Section 6.0/ITS 5.0

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-9, Rev. 1	Incorporated	B-PS	NRC Approved
TSTF-37, Rev. 1	Incorporated	5.6-2	DCPP only
TSTF-52	Incorporated	5.5-4	Incorporated draft Rev.1 per Q3.6.1-6 Q3.6.1-6
TSTF-65	Not Incorporated	NA	Not NRC approved as of traveler cut-off date
TSTF-106, Rev. 1	Not Incorporated	NA	Retain CTS
TSTF-118	Incorporated	5.5-8	
TSTF-119	Not Incorporated	NA	Retain CTS
TSTF-120	Not Incorporated	NA	Retain CTS
TSTF-121	Incorporated	5.2-2	
TSTF-152	Incorporated	5.6-4	
TSTF-167	Incorporated	5.7-2	
WOG-67, Rev. 1	Incorporated	5.6-5	
WOG-72	Incorporated	5.5-13	
WOG-85	Incorporated	5.5-14	
Proposed Traveler	Incorporated	5.5-1	WOG min-group Action Item 147

5.5 Programs and Manuals (continued)

5.5.16 Containment Leakage Rate Testing Program 5.5-4

a. A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995.

b. The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a, is 47 psig. { } Q3.6.1-6

c. The maximum allowable containment leakage rate, L_a, at P_a, shall be 0.10 % of containment air weight per day. { }

d. Leakage rate acceptance criteria are: { }

1) Containment overall leakage rate acceptance criterion is ≤ 1.0 L_a. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are < 0.60 L_a for the Type B and Type C tests and ≤ 0.75 L_a for Type A tests. ED

2) Air lock testing acceptance criteria are: { }

a) Overall air lock leakage rate is ≤ 0.05 L_a when tested at ≥ P_a. { }

b) For each door, leakage rate is ≤ 0.01 L_a when pressurized to ≥ 10 psig.

e. The provisions of SR 3.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

f. The provisions of SR 3.0.3 are applicable to the Containment Leakage Rate Testing Program.

5.5.17 Backup Method for Determining Subcooling Margin 5.5-6

A program which will ensure the capability to accurately monitor the Reactor Coolant System subcooling margin. This program shall include the following:

1) Training of personnel, and

2) Procedures for monitoring.

ADDITIONAL INFORMATION NO: Q 3.6.1-8 **NO:** DC

REQUEST:

ITS B3.6.1 Bases - LCO

The third paragraph of ITS B3.6.1-LCO for Diablo Canyon adds a reference to the Hydrogen Purge valves. See Comment Number 3.6.8-1 for staff concerns with regards to the acceptability of the Hydrogen Purge System. Retention of this reference to the Hydrogen Purge valves will depend on resolution of Comment Number 3.6.8-1.

Comment: See Comment Number 3.6.8-1.

FLOG RESPONSE: The reference to the hydrogen purge valves in the LCO Bases was included inadvertently, and thus will be removed.

ATTACHED PAGES:

Encl 5B B3.6-2

BASES

~~ejection accident (REA)~~ (Ref. 2). In addition, release of significant fission product radioactivity within containment can occur from a LOCA ~~or REA~~ or a fuel handling accident. In the DBA analyses, it is assumed that the containment is OPERABLE such that, for the DBAs involving release of fission product radioactivity, release to the environment is controlled by the rate of containment leakage. The containment was designed with an allowable leakage rate of 0.1% of containment air weight per day (Ref. 3). This leakage rate, used to evaluate offsite doses resulting from accidents, is defined in 10 CFR 50, Appendix J, Option B (Ref. 1), as L_a: the maximum allowable containment leakage rate at the calculated peak containment internal pressure (P_a) resulting from the limiting DBA LOCA. The allowable leakage rate represented by L_a forms the basis for the acceptance criteria imposed on all containment leakage rate testing. L_a is assumed to be 0.10% of containment air weight per day in the safety analysis at P_a = 47 psig (Ref. 3).

Satisfactory leakage rate test results are a requirement for the establishment of containment OPERABILITY.

The containment satisfies Criterion 3 of ~~the NRC Policy Statement~~ 10CFR50.36(c)(2)(ii).

LCO

Containment OPERABILITY is maintained by limiting leakage to ≤ 1.0 L_a, except prior to the first startup after performing a required ~~10 CFR 50, Appendix J,~~ Containment Leakage Rate Testing Program leakage test. At this time, ~~the combined Type B and C leakage must be < 0.6 L_a, and the overall Type A leakage must be < 0.75 L_a~~ the applicable ~~Containment Leakage Rate Testing Program~~ leakage limits must be met. φ3.6.1-6

Compliance with this LCO will ensure a containment configuration, including equipment hatch, that is structurally sound and that will limit leakage to those leakage rates assumed in the safety analysis. φ3.6.1-8

Individual leakage rates specified for the containment air lock (LCO 3.6.2) and containment purge supply and exhaust ~~(hydrogen purge)~~ and containment pressure/vacuum relief valves with resilient seals (LCO 3.6.3) ~~are not specifically part of the acceptance criteria of 10 CFR 50, Appendix J. Therefore, leakage rates exceeding~~ , option B φ3.6.1-6

remove strike out

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.1-10 **APPLICABILITY:** DC, CP

REQUEST:

STS B3.6.1 Bases - SR 3.6.1.2
ITS B3.6.1 Bases - SR 3.6.1.2

Comment: See Comment Number 3.6.0-2.

FLOG RESPONSE: See response to Q 3.6.0-2

ATTACHED PAGES:

See attached pages for response Comment Number 3.6.0-2.

3.6.2 Containment Airlocks

ADDITIONAL INFORMATION NO: Q 3.6.2-1 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 1-04 A (CTS 1.0)
DOC 1-01 LG
DOC 1-05 A
CTS 1.7.c (1.8.c for Diablo Canyon)
CTS 3/4.6.1.1
CTS 4.6.1.1.b
ITS SR 3.6.2.1, SR 3.6.2.2 and Associated Bases

CTS 1.7 (1.8 in Diablo Canyon) defines CONTAINMENT INTEGRITY. A markup of CTS 1.7/1.8 is provided in the CTS markup of CTS 1.0. DOC 1-04 A (CTS 1.0) states that the definition of CONTAINMENT INTEGRITY is deleted from the CTS/ITS. DOC 1-01 LG in CTS 3.6 states that the definition requirements have been relocated to the Bases for ITS 3.6.1. Both of these justifications are incorrect. CTS 1.7.c (1.8.c in Diablo Canyon) specifies that the airlocks shall be in compliance with the requirements of specification 3.6.1.3. This requirement has been relocated to the Bases of ITS 3.6.1, but it is also the Bases for ITS SR 3.6.2.1 and SR 3.6.2.2. No justification is provided for this Administrative change in CTS 1.0. A similar change made to CTS 4.6.1.1.b is designated DOC 1-05A which is acceptable.

Comment: Provide a discussion and justification for this Administration change similar to DOC 1-05 A.

FLOG RESPONSE: DOC 1-36 A (CTS 1.0) has been added to read:

"CTS 1.7.c (1.8.c for Diablo Canyon) specifies that the airlocks shall be in compliance with the requirements of CTS 3.6.1.3. This requirement from the definition of CONTAINMENT INTEGRITY would be included in the Bases of ITS 3.6.1. The detailed surveillance testing requirements for the airlocks are further specified in CTS 4.6.1.3. Because meeting containment airlock requirements would be retained as a direct condition of containment airlocks OPERABILITY through Improved TS SR 3.6.2.1 and SR 3.6.2.2, this change would be classified as Administrative (A)."

Also, see the FLOG response to Comment 3.6.1-1 regarding the relocation of the CONTAINMENT INTEGRITY definition requirements.

ATTACHED PAGES:

1.0 Encl 2	1-2
1.0 Encl 3A	5
1.0 Encl 3B	4

CHANNEL FUNCTIONAL TEST

1.7 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels - the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY including required alarm and/~~or~~ trip functions. or — 01-01-A

b. Bistable channels - the injection of a simulated or actual signal into the sensor to verify OPERABILITY including required alarm and/~~or~~ trip functions. or — 01-01-A

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/~~or~~ trip functions. — 01-01-A

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. — 01-30-A

~~CONTAINMENT INTEGRITY~~ — Q3.6.1-1

~~1.8 CONTAINMENT INTEGRITY shall exist when:~~ — 01-04-~~X~~ LG

~~a. All penetrations required to be closed during accident conditions are either:~~

~~1. Capable of being closed by an OPERABLE containment automatic isolation valve system, or~~ — Q3.6.3-1, 01-35-A

~~2. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.~~

~~b. All equipment hatches are closed and sealed.~~ — Q3.6.2-1, 01-36-A

~~c. Each air lock is in compliance with the requirements of Specification 3.6.1.3.~~

~~d. The containment leakage rates are within the limits of specification 3.6.1.2, as determined by Surveillance Requirement 4.6.1.1c and are within the limits listed in the Bases for Specification 3.6.1.1~~ — Q3.6.1-5

~~e. The sealing mechanism associated with each penetration (e.g., welds, bellows or O-rings) is OPERABLE.~~ — 01-37-A, Q3.6.1-3

~~CONTROLLED LEAKAGE~~

~~1.9 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.~~ — 01-05-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 1.2 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, and WOG-90, Rev. 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, the definitions of COT, [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. 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.
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 to clarify the phrase "entire channel;" thus reducing the potential for inconsistent interpretation of the phrase as experienced by a number of plants.
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)

Q3.6.3-1
Q3.6.2-1
Q3.6.1-3

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, [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.	Yes	Yes	Yes	Yes
01-31 A	Definitions of specific plant systems which are defined by the plant design are deleted.	Yes	Yes	No, not in CTS	No, not in CTS
01-32 A	The definition of CHANNEL CALIBRATION, COT, [CFT] and TADOT are reworded to be consistent with Industry Traveler TSTF-64. The revised wording clarifies what is meant by "entire channel."	Yes	Yes	Yes	Yes
01-33 A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative."	Yes	Yes	Yes	Yes

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

1.0 Encl 3A - page 5

01-36-A CTS 1.7.c (1.8.c for Diablo Canyon) specifies that the air locks shall be in compliance with the requirements of CTS 3.6.1.3. This requirement from the definition of CONTAINMENT INTEGRITY would be included in the Bases of ITS 3.6.1. The detailed surveillance testing requirements for the air locks are further specified in CTS 4.6.1.3. Because meeting containment air lock requirements would be retained as a direct condition of containment air locks OPERABILITY through Improved TS SR 3.6.2.1 and SR 3.6.2.2, this change would be classified as Administrative (A).

1.0 Encl 3B - page 4

01-36-A CTS 1.7.c (1.8.c for Diablo Canyon) specifies that the air locks shall be in compliance with the requirements of CTS 3.6.1.3. This requirement from the definition of CONTAINMENT INTEGRITY would be included in the Bases of ITS 3.6.1.

Applicability:

DC	Yes
CP	Yes
WC	Yes
CA	Yes

ADDITIONAL INFORMATION NO: Q 3.6.2-3 **APPLICABILITY:** DC, CP

REQUEST:

DOC 2-02 A
CTS 3.0.3
CTS 3.6.1.1 ACTIONS
CTS 3.6.1.2 ACTIONS
ITS 3.6.2 ACTIONS

Comment: See Comment Number 3.6.1-5.

FLOG RESPONSE: See response to Comment Number 3.6.1-5.

ATTACHED PAGES:

See attached pages for response Comment Number 3.6.1-5.

ADDITIONAL INFORMATION NO: Q 3.6.2-4 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 3-02 A
CTS 3.6.1.3 ACTIONS
ITS 3.6.2 ACTIONS Note 2

- A Note is added to CTS 3.6.1.3 ACTIONS to permit separate Condition entry for each airlock. The justification DOC 3-02 A states that the change is an Administrative change that is consistent with NUREG-1431. Consistency with the NUREG is not a basis for acceptability of a change. The change must be justified on its own merits based on its applicability to the unit.

  Comment: Provide additional discussion and justification for this Administrative change.

FLOG RESPONSE: Section 3.6 DOC 3-02 A has been modified to include the following information: "ITS 3.6.2 Actions Note 2 provides clarification that, for the purpose of the associated LCO, 'Separate Condition entry is allowed for each air lock.' This is acceptable because the Required Actions for each Condition provide appropriate compensatory actions for each inoperable air lock. Complying with the Required Actions will allow for continued operation; subsequent inoperable air locks are governed by subsequent Condition entry and application of associated Required Actions. This is an administrative change with no impact on safety because the clarification provided by Note 2 is consistent with current application of the CTS."

ATTACHED PAGES:

Encl 3A 3

DESCRIPTION OF CHANGES TO TS SECTION 3/4.6
(Continued)

Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3a).

CHANGE NUMBER	NSHC	DESCRIPTION
02-06	A	~~Consistent with industry Traveler TSTF-52, the leakage rate acceptance criteria is revised to <0.60 La for Type B and Type C tests rather than ≤ 0.60 L_a. There is no significant difference between the two expressions.~~ Q3.6.1-5
03-01	LG	The descriptive information in the LCO regarding OPERABILITY of the air locks is moved to the Bases 3.6.2. This change is consistent with NUREG-1431 and the approach of discussing OPERABILITY in the TS Bases.
03-02	A	This Note revises ACTIONS to permit separate Condition entry for each airlock consistent with NUREG-1431. The Note provides guidance and clarification for use of the TS and is considered administrative is nature. Insert Q3.6.2-4
03-03	LS3	Consistent with NUREG-1431, this Note allows entry and exit into containment via the air locks for up to 7 days if both air locks are inoperable and administrative controls are provided. With both air locks inoperable containment entry may be required on a periodic basis to perform TS surveillances and Required Actions, as well as other activities on equipment inside containment. This Note provides allowance for these activities to be performed.
03-04	M	The CTS ACTIONS [ ] are revised to be consistent with NUREG-1431, LCO 3.6.2, ACTIONS A.1. and A.2. The NUREG-1431 ACTIONS establish a one hour time limit for verifying the OPERABLE air lock door closed. The current requirement does not specify a time for verifying an air lock door closed.
03-05	LS4	The allowance to continue operation with one air lock door inoperable has been modified to remove the restriction which limits this Condition until the next required overall air lock leakage test. This restriction was removed because the air lock remains capable of performing its safety functions with the remaining OPERABLE door. Therefore, continued operations may proceed indefinitely subject to the other restrictions of the TS (continuing to meet the ACTIONS and applicable surveillances). This change is consistent with NUREG-1431.
03-06	LS5	Consistent with NUREG-1431, this Note modifies the requirement to verify an air lock door locked closed every 31 days. The Note allows the verification of locked closed air lock doors located in high radiation areas to be performed by use of administrative means. This change is less restrictive in that the CTS does not require this exception due to current design and capability to verify inner door locked from outside of the containment airlock. Under CTS, if the area outside of the airlock and containment became a high radiation area, we would still be required to enter the area to verify the closed positions. The ITS would allow verification of all areas that are high radiation areas or become high radiation areas by administrative means once they have been verified to be in the proper position. This is considered acceptable, since access to these areas is restricted for ALARA reasons. Therefore, the probability of misalignment of the air lock doors once they have been initially verified in the proper position, is small.

Enclosure 3A - (page 3)

03-02-A ITS 3.6.2 Actions Note 2 provides clarification that, for the purpose of the associated LCO, 'Separate Condition entry is allowed for each airlock.' This is acceptable because the Required Actions for each Condition provide appropriate compensatory actions for each inoperable airlock. Complying with the Required Actions will allow for continued operation; subsequent inoperable airlocks are governed by subsequent Condition entry and application of associated Required Actions. This is an administrative change with no impact on safety because the clarification provided by Note 2 is consistent with current application of the CTS."

ADDITIONAL INFORMATION NO: Q 3.6.2-5 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

JFD 3.6-1
CTS 4.6.1.1.c (Wolf Creek)
CTS 4.6.1.1.d (Callaway)
CTS 3/4.6.1.2 (Diablo Canyon and Comanche Peak)
CTS 4.6.1.3.a
STS SR 3.6.2.1
ITS SR 3.6.2.1 and Associated Bases

Comment: See Comment Number 3.6.1-6.

FLOG RESPONSE: See response to Comment Number 3.6.1-6

ATTACHED PAGES:

See attached pages for response Comment Number 3.6.1-6.

ADDITIONAL INFORMATION NO: Q 3.6.2-6 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

JFD 3.6-2
STS SR 3.6.2.2
ITS SR 3.6.2.2 and Associated Bases

STS SR 3.6.2.2 requires verifying only one door in the airlock will open at a time at six month intervals. The interval is modified in ITS SR 3.6.2.2 from 6 months to 24 months. This modification is in accordance with TSTF-17; however, the Bases changes are not in accordance with TSTF-17.

Comment: Revise the ITS Bases to be in accordance with TSTF-17 or justify the deviations.

FLOG RESPONSE: The ITS Bases for SR 3.6.2.2 has been modified to conform to TSTF-17, Revision 1, and reads: "..used for entry and exit (procedures require strict adherence to single door opening), this test is only required to be performed every 24 months. The 24 month Frequency is based on the need to perform this surveillance under the conditions that apply during a plant outage and the potential for loss of containment OPERABILITY when the Surveillance is performed with the reactor at power. The 24 month Frequency for the interlock is justified based on generic operating experience. The Frequency is based on engineering judgement and is considered adequate given that the interlock is not challenged during the use of the air lock."

ATTACHED PAGES:

Encl 5B B3.6-10

For Information Only Pages:

Encl 5B B3.6-9

BASES (Continued)

SURVEILLANCE REQUIREMENTS (Continued)

~~Thus, SR 3.0.2 (which allows Frequency extensions) does not apply~~ the Containment Leakage Rate Testing Program.

The SR has been modified by two Notes. Note 1 states that an inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. This is considered reasonable since either air lock door is capable of providing a fission product barrier in the event of a DBA. Note 2 has been added to this SR requiring the results to be evaluated against the acceptance criteria of the Containment Leakage Rate Testing Program, which is applicable to SR 3.6.1.1. This ensures that air lock leakage is properly accounted for in determining the ~~overall~~ combined Type B and C containment leakage rate.

SR 3.6.2.2

The air lock interlock is designed to prevent simultaneous opening of both doors in a single air lock. Since both the inner and outer doors of an air lock are designed to withstand the maximum expected post accident containment pressure, closure of either door will support containment OPERABILITY. Thus, the door interlock feature supports containment OPERABILITY while the air lock is being used for personnel transit in and out of the

(Continued)

BASES (Continued)

Q3.6.2-6

SURVEILLANCE REQUIREMENTS

containment. Periodic testing of this interlock demonstrates that the interlock will function as designed and that simultaneous opening of the inner and outer doors will not inadvertently occur. ~~Due to the purely mechanical nature of this interlock, and given that the interlock mechanism is only not normally challenged when the containment air lock door is opened used for entry and exit (procedures require strict adherence to single door opening).~~ This test is only required to be performed ~~upon entering or exiting a containment air lock but is not required more frequently than every 184 days~~ every 24 months. The 24 month Frequency is based on ~~avoiding the~~ loss of containment OPERABILITY if the Surveillance were performed with the reactor at power. ~~Operating experience has shown these components usually pass the Surveillance when performed at the 24 month Frequency. The 184 day 24 month Frequency is based~~ and on engineering judgement ~~and is considered adequate in view of other indications of door and interlock mechanism status available to operations personnel given that the interlock is not challenged during use of the airlock~~.

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Insert A

Insert B

Insert C

REFERENCES

1. 10 CFR 50, Appendix J, Option B.
2. FSAR, Section 3.8, 6.2, and 15.

Encl 5B - Bases SR 3.6.2.2 (page B3.6-10)

INSERT A

the need to perform this Surveillance under conditions that apply during a plant outage, and the potential for

INSERT B

the 24 month frequency for the interlock is justified based on generic operating experience.

INSERT C

given that the interlock is not challenged during use of the airlock.

ADDITIONAL INFORMATION NO: Q 3.6.2-7 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

CTS 3.6.1.3 ACTIONS
ITS 3.6.2 Condition A-RA Note 1ITS 3.6.2 Condition B-RA Note 1
and Associated Bases

The Required Actions (RA) for ITS 3.6.2 Condition A and Condition B have a Note 1 which states: "Required Actions X.1, X.2 and X.3 are not applicable if both doors in the same airlock are inoperable and Condition C is entered." CTS 3.6.1.3 ACTIONS do not contain such a Note, nor does the CTS markup of CTS 3.6.1.3 show the addition of this Note. This change would be an Administrative change for Condition A and a More Restrictive change for Condition B.

Comment: Revise the CTS markup to show this Note, and provide a discussion and justification for the addition of this Note to the RA of Condition A and Condition B.

FLOG RESPONSE: CTS LCO 3.6.1.3 has been revised to incorporate Required Action A.1, A.2, and A.3 Note 1 of ITS LCO 3.6.2. This Note states that "Required Actions A.1, A.2, and A.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered." DOC 3-14 A was created for adding this Note to the CTS.

DOC 3-08 LS-6 added a new Action to CTS LCO 3.6.1.3 which corresponds to ITS 3.6.2 Condition B. Note 1 of Required Action B.1, B.2, and B.3 was not included in the CTS markup. Therefore, Note 1 is being added to the new Action to CTS LCO 3.6.1.3 under DOC 3-08 LS-6 since the entire Action is considered a Less Restrictive Change.

ATTACHED PAGES:

Encl 2	3/4.6-5
Encl 3A	5
Encl 3B	3

Q3.6.0-1

01-07-A

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each the two containment air locks shall be OPERABLE. ~~with both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed.~~ 03-02-A 03-13-A

APPLICABILITY: MODES 1, 2, 3, and 4. 03-01-LG

ACTION: *, **, *** 03-09-LS7

Q3.6.2-7 03-03-LS3

a. With one or more containment air locks with one containment airlock door or the interlock mechanism~~*~~ inoperable~~***~~: 03-08-LS6

1. ~~Maintain at least~~ Verify the OPERABLE air lock door closed within 1 hour and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed, and 03-04-M

2. ~~Operation may then continue until performance of the next required overall air lock leakage test provided that~~ Verify the OPERABLE air lock door is ~~verified to be~~ locked closed at least once per 31 days. ***** 03-05-LS4 03-06-LS5

3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. ~~and~~

~~4. The provisions of Specification 3.0.4 are not applicable.~~ 03-12-A

b. With ~~the~~ one or more containment air locks inoperable for reasons other than a., initiate Action to evaluate overall containment leakage rate per LCO 3.6.1, except as the result of an inoperable air lock door, or an interlock mechanism, ~~maintain~~ verify at least one air lock door closed within 1 hour, restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within ~~the following 30~~ 36 hours. 03-07-M

* Entry and exit is permissible to perform repairs on the affected airlock components. 03-09-LS7

** Separate condition entry is allowed for each airlock. 03-02-A

*** Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment" when airlock leakage results in exceeding the overall containment leakage rate. 03-13-A

**** Entry and exit is permissable for 7 days under Administrative Controls if both airlocks are inoperable. 03-03-LS3

***** Airlock doors in high radiation areas may be verified locked by Administrative means. 03-06-LS5

++ Entry and exit of containment is permissable under the control of a dedicated individual. 03-08-LS6

Q3.6.2-7

\+ Actions a.1, a.2, and a.3 are not applicable if both doors in the same air lock are inoperable and Action b. is entered. 03-14-A 03-08-LS6

CHANGE NUMBER	NSHC	DESCRIPTION
03-12	A	The statement that Specification 3.0.4 does not apply is no longer needed as revised ACTIONS consistent with NUREG-1431 permit continued operation for an unlimited period of time.
03-13 03-14 03-15	A A A	Consistent with NUREG-1431, a Note is added to the ACTIONS to enter applicable Conditions and Required ACTIONS of the "Containment" LCO when leakage results in exceeding the overall containment leakage rate. This is current operating practice per TS requirement CTS 3.6.1.1. Therefore, this change is considered an administrative change in format. Q3.6.2-7 Insert Insert Q3.6.2-8
05-01	LG	The method for calculating containment average temperature and the locations where measurements are taken are moved to the Bases. This level of detail in the TS is not consistent with NUREG-1431. The improved STS Bases is licensee controlled under the Bases Control Program in the Administrative Controls section of the improved STS.
06-01		Not Used. Insert Q3.6.5-1
06-02	A	The structural integrity requirements of containment are contained in ITS 3.6.1. The inspection requirements associated with structural integrity of the exposed accessible interior and exterior containment surfaces, are contained in Appendix J, Option B and in Regulatory Guide (RG) 1.163. The requirement to perform visual inspections is in ITS Surveillance Requirement (SR) 3.6.1.1 which refers to the containment Leakage Rate Testing Program as controlled by ITS 5.5.16.
06-03	TR2	Consistent with NUREG-1431, the reporting requirement is being deleted. 10 CFR 50.72 and 10 CFR 50.73 establish the reporting requirements.
06-04	M	The ACTION is moved to ITS 3.6.1, Condition A and B. The ITS requirements are more severe in that only 1 hour allowed outage time (AOT) is provided while the CTS provides a 24 hour AOT. The shorter AOT is acceptable because a containment which may not be able to act as a boundary as designed could have a significant adverse impact on the consequences of an accident.
07-01	A	Consistent with NUREG-1431, the LCO and SRs for containment ventilation/purge valves are now included in ITS 3.6.3 for Containment Isolation Valves.
07-02	LS9	Consistent with NUREG-1431, the Required Action for a containment ventilation/purge valve with a leakage rate which exceeds the acceptance criteria is revised to allow continued operation if the penetration flow path is isolated within 24 hours. This action is in lieu of requiring a shutdown if the valve leakage rate is not restored to an acceptable value within 24 hours. This is considered acceptable because with the associated penetrations isolated per the proposed ACTION requirement, no accident is credible as a result of the leaking valve.

Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).

Q3.6.1-5

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
03-07 M	This ACTION addresses Conditions other than a single inoperable airlock door or airlock interlock mechanism in an affected airlock. A new requirement is included to immediately initiate ACTION to evaluate the overall containment leakage rate per the containment OPERABILITY LCO. This change also establishes a one hour time limit to verify one airlock door closed in the affected airlock.	Yes	Yes	Yes	Yes
03-08 LS6	Consistent with the ACTIONS and modifying notes provided for an inoperable airlock door, ACTIONS are added which allow continued operation when the personnel airlock is inoperable due to an inoperable interlock mechanism.	Yes	Yes	Yes	Yes
03-09 LS7	A note is added to allow entry and exit to repair airlock components in an inoperable airlock.	Yes	Yes	Yes	Yes
03-10 LS8	Consistent with industry Traveler TSTF-17, Rev. 1, the surveillance frequency on containment airlock interlock mechanisms is extended from 6 months to 24 months.	Yes	Yes	Yes	Yes
03-11	Not Used.	N/A	N/A	N/A	N/A
03-12 A	The statement that Specification 3.0.4 does not apply is not needed as revised ACTIONS permit continued operation for an unlimited period of time.	Yes	Yes	Yes	Yes
03-13 A	A Note is added to the ACTIONS to enter applicable Conditions and Required Actions of the "Containment" LCO when leakage results in exceeding the overall containment leakage rate.	Yes	Yes	Yes	Yes
05-01 LG	The method for calculating containment average temperature and the locations where measurements are taken are moved to the Bases.	Yes	Yes	Yes	Yes

03-14 A } insert ⊕3.6.2-7

03-15 A } insert ⊕3.6.2-8

Enclosure 3A, page 5

03-14-A CTS LCO 3.6.1.3 has been revised to incorporate Required Action A.1, A.2, and A.3 Note 1 of ITS LCO 3.6.2. This ITS Note states that "Required Actions A.1, A.2, and A.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered." The Note provides explicit instructions for proper application of the actions for Technical Specification compliance. In conjunction with ITS 1.3, "Completion Times," the Condition A Required Actions provide direction consistent with the intent of the CTS actions for one inoperable air lock door in the air lock. ITS 3.6.2, Required Action A.1 Note 1 recognizes that if both doors in the air lock are inoperable (Condition C is entered), then an "OPERABLE" door does not exist to be closed. Therefore, Required Actions A.1, A.2, and A.3 cannot be met. This change is an adminstrative change since it is consistent with the intent of the CTS and is only provided to ensure the Required Actions are correctly understood. The change is editorial in nature and does not involve a technical change to the TS. The change is consistent with NUREG-1431.

Enclosure 3B, page 3

03-14 A CTS LCO 3.6.1.3 has been revised to incorporate Required Action A.1, A.2, and A.3 Note 1 of ITS LCO 3.6.2. This ITS Note states that "Required Actions A.1, A.2, and A.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered."

APPLICABILITY:		
	DC	Yes
	CP	Yes
	WC	Yes
	CA	Yes

ADDITIONAL INFORMATION NO: Q 3.6.2-8 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

CTS 4.6.1.3
ITS SR 3.6.2.1 Note 1 and 2 and Associated Bases

ITS SR 3.6.2.1 has two Notes associated with it. Note 1 states that an inoperable airlock door does not invalidate the previous successful performance of the overall airlock leakage test. Note 2 requires the results of the leakage test be evaluated against the acceptance criteria of ITS SR 3.6.1.1. CTS 4.6.1.3 does not contain such Notes nor does the CTS markup of CTS 4.6.1.3 show the addition of these Notes. Based on the use of the CTS the addition of these Notes is considered as an Administrative change.

Comment: Revise the CTS markup to show these Notes and provide a discussion and justification for these Administrative changes.

FLOG RESPONSE: CTS SR 4.6.1.3 has been revised to incorporate ITS SR 3.6.2.1 Notes 1 and 2. DOC 3-15 A was created and states: "CTS SR 4.6.1.3 has been revised to incorporate ITS SR 3.6.2.1 Notes 1 and 2. This additional information facilitates the use and understanding of the intent of the requirements. ITS SR 3.6.2.1 Note 1 states that an inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. Since the inoperability affects only one door, the air lock penetration barrel and the other operable door provides a sufficient containment barrier. Even though the overall test could not be satisfied, and SR 3.0.1. would normally require declaring the LCO not met and entering ITS 3.6.2 Condition C (CTS Action b), the Note clarifies the intent that the previous test not be considered 'not met.' ITS SR 3.6.2.1 Note 2 ensures that the overall containment leakage is evaluated against the Containment Leakage Rate Testing Program acceptance criteria if an air lock is inoperable. This change is editorial in nature and does not involve a technical change to the TS. The change is consistent with NUREG-1431."

ATTACHED PAGES:

Encl 2	3/4.6-6
Encl 3A	5
Encl 3B	3

SURVEILLANCE REQUIREMENTS Q36.2-8

03-15-A

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE: +++, ++++

a. By verifying leakage rates in accordance with the Containment Leakage Rate Testing Program.

b. At least once per ~~6~~ 24 months by verifying that only one door in each air lock can be opened at a time. 03-10-LS8

+++ An inoperable air lock door does not invalidate the previous sucessful performance of the overall air lock leakage test. 03-15-A

++++ The surveillance results shall be evaluated against acceptance criteria applicable to 4.6.1.1.c. 03-15-A

CHANGE NUMBER	NSHC	DESCRIPTION
03-12	A	The statement that Specification 3.0.4 does not apply is no longer needed as revised ACTIONS consistent with NUREG-1431 permit continued operation for an unlimited period of time.
03-13 03-14 03-15	A A A	Consistent with NUREG-1431, a Note is added to the ACTIONS to enter applicable Conditions and Required ACTIONS of the "Containment" LCO when leakage results in exceeding the overall containment leakage rate. This is current operating practice per TS requirement CTS 3.6.1.1. Therefore, this change is considered an administrative change in format. Q3.6.2-7 Insert Insert Q3.6.2-8
05-01	LG	The method for calculating containment average temperature and the locations where measurements are taken are moved to the Bases. This level of detail in the TS is not consistent with NUREG-1431. The improved STS Bases is licensee controlled under the Bases Control Program in the Administrative Controls section of the improved STS. Insert Q3.6.5-1
06-01		Not Used.
06-02	A	The structural integrity requirements of containment are contained in ITS 3.6.1. The inspection requirements associated with structural integrity of the exposed accessible interior and exterior containment surfaces, are contained in Appendix J, Option B and in Regulatory Guide (RG) 1.163. The requirement to perform visual inspections is in ITS Surveillance Requirement (SR) 3.6.1.1 which refers to the containment Leakage Rate Testing Program as controlled by ITS 5.5.16.
06-03	TR2	Consistent with NUREG-1431, the reporting requirement is being deleted. 10 CFR 50.72 and 10 CFR 50.73 establish the reporting requirements.
06-04	M	The ACTION is moved to ITS 3.6.1, Condition A and B. The ITS requirements are more severe in that only 1 hour allowed outage time (AOT) is provided while the CTS provides a 24 hour AOT. The shorter AOT is acceptable because a containment which may not be able to act as a boundary as designed could have a significant adverse impact on the consequences of an accident.
07-01	A	Consistent with NUREG-1431, the LCO and SRs for containment ventilation/purge valves are now included in ITS 3.6.3 for Containment Isolation Valves.
07-02	LS9	Consistent with NUREG-1431, the Required Action for a containment ventilation/purge valve with a leakage rate which exceeds the acceptance criteria is revised to allow continued operation if the penetration flow path is isolated within 24 hours. This action is in lieu of requiring a shutdown if the valve leakage rate is not restored to an acceptable value within 24 hours. This is considered acceptable because with the associated penetrations isolated per the proposed ACTION requirement, no accident is credible as a result of the leaking valve.

Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B). Q3.6.1-5

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
03-07 M	This ACTION addresses Conditions other than a single inoperable airlock door or airlock interlock mechanism in an affected airlock. A new requirement is included to immediately initiate ACTION to evaluate the overall containment leakage rate per the containment OPERABILITY LCO. This change also establishes a one hour time limit to verify one airlock door closed in the affected airlock.	Yes	Yes	Yes	Yes
03-08 LS6	Consistent with the ACTIONS and modifying notes provided for an inoperable airlock door, ACTIONS are added which allow continued operation when the personnel airlock is inoperable due to an inoperable interlock mechanism.	Yes	Yes	Yes	Yes
03-09 LS7	A note is added to allow entry and exit to repair airlock components in an inoperable airlock.	Yes	Yes	Yes	Yes
03-10 LS8	Consistent with industry Traveler TSTF-17, Rev. 1, the surveillance frequency on containment airlock interlock mechanisms is extended from 6 months to 24 months.	Yes	Yes	Yes	Yes
03-11	Not Used.	N/A	N/A	N/A	N/A
03-12 A	The statement that Specification 3.0.4 does not apply is not needed as revised ACTIONS permit continued operation for an unlimited period of time.	Yes	Yes	Yes	Yes
03-13 A	A Note is added to the ACTIONS to enter applicable Conditions and Required Actions of the "Containment" LCO when leakage results in exceeding the overall containment leakage rate.	Yes	Yes	Yes	Yes
05-01 LG	The method for calculating containment average temperature and the locations where measurements are taken are moved to the Bases.	Yes	Yes	Yes	Yes

03-14 A } insert ⊕3.6.2-7

03-15 A } insert ⊕3.6.2-8

Encl 3A - page 5

3-15 A CTS SR 4.6.1.3 has been revised to incorporate ITS SR 3.6.2.1 Notes 1 and 2. This additional information facilitates the use and understanding of the intent of the requirements. ITS SR 3.6.2.1 Note 1 states that an inoperable air lock door does not invalidate the previous successful performance of the overall airlock leakage test. Since the inoperability affects only one door, the airlock penetration barrel and the other operable door provide a sufficient containment barrier. Even though the overall test could not be satisfied, and SR 3.0.1. would normally require declaring the LCO not met and entering ITS 3.6.2 Condition C (CTS Action b), the Note clarifies the intent that the previous test not be considered "not met." ITS SR 3.6.2.1 Note 2 ensures that the overall containment leakage is evaluated against the Containment Leakage Rate Testing Program acceptance criteria if an airlock is inoperable. This change is editorial in nature and does not involve a technical change to the TS. The change is consistent with NUREG-1431.

Encl 3B - page 3

03-15 A CTS SR 4.6.1.3 has been revised to incorporate ITS SR 3.6.2.1 Notes 1 and 2. This additional information facilitates the use and understanding of the intent of the requirements.

APPLICABILITY:

DC	Yes
CP	Yes
WC	Yes
CA	Yes

ADDITIONAL INFORMATION NO: Q 3.6.2.-9 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

STS B3.6.2 Bases BACKGROUND
ITS B3.6.2 Bases - BACKGROUND

The second paragraph in STS B3.6.2 Bases - BACKGROUND states the following: "During periods when containment is not required to be OPERABLE, the door interlock mechanism may be disabled, allowing both doors of an airlock to remain open for extended periods of time when frequent containment entry is necessary." ITS B3.6.2 Bases - BACKGROUND modifies this sentence by deleting the words "when frequent containment entry is necessary." Since ITS changes to the STS Bases were made based on changes to the STS, on plant specific system design, or on current licensing basis as specified in the CTS, the deletion of these words does not seem to fall into any of these categories. The Staff believes that the deletion changes the meaning of the statement when one considers the requirements of ITS 3.9.

Comment: Retain the STS wording.

FLOG RESPONSE: ITS B3.6.2 Bases - Background have been revised to include the STS words "when frequent containment entry is necessary."

ATTACHED PAGES:

Encl 5B B3.6-5

B 3.6 CONTAINMENT SYSTEMS

B 3.6.2 Containment Air Locks ~~(Atmospheric, Subatmospheric, Ice Condenser, and Dual)~~

BASES

BACKGROUND

Containment air locks form part of the containment pressure boundary and provide a means for personnel access during all MODES of operation.

There are two containment airlocks. ~~Each~~ The personnel air lock is nominally a right circular cylinder, ~~10~~ approximately 9 ft in diameter, with a door at each end. The emergency air lock is approximately 5 ft ~~9 in~~ inside diameter with a 2 ft 6 in door at each end. ~~The~~ On both air locks, doors are interlocked to prevent simultaneous opening. During periods when containment is not required to be OPERABLE, the door interlock mechanism may be disabled, allowing both doors of an air lock to remain open for extended periods ~~when frequent containment entry is necessary.~~ Each air lock door has been designed and tested to certify its ability to withstand a pressure in excess of the maximum expected pressure following a Design Basis Accident (DBA) in containment. As such, closure of a single door supports containment OPERABILITY. Each of the doors contains double gasketed seals and local leakage rate testing capability to ensure pressure integrity. To effect a leak tight seal, the air lock design uses pressure seated doors (i.e., an increase in containment internal pressure results in increased sealing force on each door).

Q3.6.2-9

remove strike-out

Each personnel air lock is provided with limit switches on both doors that provide control room indication of door position. ~~Additionally, control room indication is provided to alert the operator whenever an air lock door interlock mechanism is defeated.~~

The containment air locks form part of the containment pressure boundary. As such, air lock integrity and leak tightness is essential for maintaining the containment leakage rate within limit in the event of a DBA. Not maintaining air lock integrity or leak tightness may result in a leakage rate in excess of that assumed in the ~~unit~~ safety analyses.

APPLICABLE SAFETY ANALYSIS

In MODE 1, 2, 3, and 4, the DBA~~s~~ that results in a release of radioactive material within containment ~~are~~ is a loss of coolant accident ~~and a rod ejection accident~~ (Ref. 2). In the analysis of ~~each of these~~ this accident~~s~~, it is assumed that containment is OPERABLE such that release of fission products to the environment is controlled by the rate of containment leakage. The containment was designed with an allowable leakage rate of 0.1% of containment air weight per day (Ref. 2). This leakage rate is defined in 10 CFR 50, Appendix J, Option B (Ref. 1), as L_a = 0.1% of containment air weight per day, the maximum allowable containment leakage rate at the calculated peak containment internal pressure P_a = ~~48.3~~ 47.0 psig following a DBA ~~LOCA~~. This allowable leakage rate forms the basis for the acceptance criteria imposed on the SRs associated with the air locks.

The containment air locks satisfy Criterion 3 of ~~the NRC Policy Statement~~ 10CFR50.36(c)(2)(ii).

LCO

Each containment air lock forms part of the containment pressure boundary. As part of containment pressure boundary, the air lock safety function is related to control of the containment leakage rate resulting from a DBA. Thus, each air lock's structural integrity and leak tightness are essential to the successful mitigation of such an event.

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.2-12 **APPLICABILITY:** DC

REQUEST:

STS B3.6.2 Bases - ACTIONS
ITS B3.6.2 Bases - ACTIONS

ITS B3.6.2 Bases - ACTIONS in DCPP modifies the descriptive information on Note 3 in STS B3.6.2 Bases - ACTIONS. The following words have been added to the first sentence: "Limiting for the airlock then the leakage must be evaluated for its effect on the..." Since ITS changes to the STS Bases were made based on changes to the STS, on plant specific system design or on current licensing basis as specified in the CTS, this addition does not seem to fall into any of these categories. The additional wording does not seem to clarify the sentence and it basically repeats what is already being stated in the first part of the sentence.

Comment: Delete this change.

FLOG RESPONSE: The words "limit for the airlock then the leakage must be evaluated for its effect on the..." have been deleted from the Bases text.

ATTACHED PAGES:

Encl 5B B3.6-6

BASES

Each air lock is required to be OPERABLE. For the air lock to be considered OPERABLE, the air lock interlock mechanism must be OPERABLE, the air lock must be in compliance with the Type B air lock leakage test, and both air lock doors must be OPERABLE. The interlock allows only one air lock door of an air lock to be opened at one time. This provision ensures that a gross breach of containment does not exist when containment is required to be OPERABLE. Closure of a single door in each air lock is sufficient to provide a leak tight barrier following postulated events. Nevertheless, both doors are kept closed when the air lock is not being used for normal entry into or exit from containment.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, the containment air locks are not required in MODE 5 to prevent leakage of radioactive material from containment. The requirements for the containment air locks during MODE 6 are addressed in LCO 3.9.~~3~~4, "Containment Penetrations."

ACTIONS

The ACTIONS are modified by a Note that allows entry and exit to perform repairs on the affected air lock component. If the outer door is inoperable, then it may be easily accessed for most repairs. It is preferred that the air lock be accessed from inside primary containment by entering through the other OPERABLE air lock. However, if this is not practicable, or if repairs on either door must be performed from the barrel side of the door then it is permissible to enter the air lock through the OPERABLE door, which means there is a short time during which the containment boundary is not intact (during access through the OPERABLE door). The ability to open the OPERABLE door, even if it means the containment boundary is temporarily not intact, is acceptable due to the low probability of an event that could pressurize the containment during the short time in which the OPERABLE door is expected to be open. After each entry and exit, the OPERABLE door must be immediately closed. If ALARA conditions permit, entry and exit should be via an OPERABLE air lock.

A second Note has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each air lock. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable air lock. Complying with the Required Actions may allow for continued operation, and a subsequent inoperable air lock is governed by subsequent Condition entry and application of associated Required Actions.

Q3.6.2-12

In the event the air lock leakage results in exceeding the ~~limit for the air lock then the leakage must be evaluated for its effect on the~~ overall containment leakage rate. Note 3 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1, "Containment" if the overall containment leakage limits are exceeded.

Q3.6.0-2

A.1, A.2, and A.3

With one air lock door in one or more containment air locks inoperable, the OPERABLE door must be verified closed (Required Action A.1) in each affected containment air lock. This ensures that a leak tight containment barrier is maintained by the use of an OPERABLE air lock door. This action must be completed within 1 hour. This specified time period is consistent with the ACTION of LCO 3.6.1, which requires containment be restored to OPERABLE status within 1 hour.

In addition, the affected air lock penetration must be isolated by locking closed the OPERABLE air lock door within the 24 hour Completion Time. The 24 hour Completion

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.2-14 **APPLICABILITY:** DC

REQUEST:

ITS B3.6.2 Bases - RA C.1, C.2 and C.3

ITS B3.6.2 Bases - RA C.1, C.2, and C.3 for DCPP adds a sentence to the first paragraph which states: "The airlock operability...under LCO 3.6.1." The addition of this sentence does not seem warranted based on the fact that this information is not relevant here and that it is specified in ITS 5.5.16.

Comment: Provide a discussion and justification for this addition.

FLOG RESPONSE: The sentence which states: "The air lock operability ... under LCO 3.6.1." has been deleted from the Bases section for RA C.1, C.2, and C.3.

ATTACHED PAGES:

Encl 5B B3.6-8

For Information Only Pages:

Encl 5B B3.6-7

BASES

Time is reasonable for locking the OPERABLE air lock door, considering the OPERABLE door of the affected air lock is being maintained closed.

Required Action A.3 verifies that an air lock with an inoperable door has been isolated by the use of a locked and closed OPERABLE air lock door. This ensures that an acceptable containment leakage boundary is maintained. The Completion Time of once per 31 days is based on engineering judgment and is considered adequate in view of the low likelihood of a locked door being mispositioned and other administrative controls. Required Action A.3 is modified by a Note that applies to air lock doors located in high radiation areas and allows these doors to be verified locked closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both doors in the same air lock are inoperable. With both doors in the same air lock inoperable, an OPERABLE door is not available to be closed. Required Actions C.1 and C.2 are the appropriate remedial actions. The exception of Note 1 does not affect tracking the Completion Time from the initial entry into Condition A; only the requirement to comply with the Required Actions. Note 2 allows use of the air lock for entry and exit for 7 days under administrative controls if both air locks have an inoperable door. This 7 day restriction begins when the second air lock is discovered inoperable. Containment entry may be required on a periodic basis to perform Technical Specifications (TS) Surveillances and Required Actions, as well as other activities on equipment inside containment that are required by TS or activities on equipment that support TS-required equipment. This Note is not intended to preclude performing other activities (i.e., non-TS-required activities) if the containment is entered, using the inoperable air lock, to perform an allowed activity listed above. This allowance is acceptable due to the low probability of an event that could pressurize the containment during the short time that the OPERABLE door is expected to be open.

B.1, B.2, and B.3

With an air lock interlock mechanism inoperable in one or more air locks, the Required Actions and associated Completion Times are consistent with those specified in Condition A.

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both doors in the same air lock are inoperable. With both doors in the same air lock inoperable, an OPERABLE door is not available to be closed. Required Actions C.1 and C.2 are the appropriate remedial actions. Note 2 allows entry into and exit from containment under the control of a dedicated individual stationed at the air lock to ensure that only one door is opened at a time (i.e., the individual performs the function of the interlock).

Required Action B.3 is modified by a Note that applies to air lock doors located in high radiation areas and allows these doors to be verified locked closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

C.1, C.2, and C.3

With one or more air locks inoperable for reasons other than those described in Condition A or B, Required Action C.1 requires action to be initiated immediately to

(Continued)

BASES

Q3.6.2-14

evaluate previous combined leakage rates using current air lock test results. ~~The air lock operability leakage limit is 0.05 L_a and is considered part of the type B and C leakage and therefore subject to the containment inoperability limit of >1.0 L_a under LCO 3.6.1.~~ An evaluation is acceptable, since it is overly conservative to immediately declare the containment inoperable if both doors in an air lock have failed a seal test or if the overall air lock leakage is not within limits. In many instances (e.g., only one seal per door has failed), containment remains OPERABLE, yet only 1 hour (per LCO 3.6.1) would be provided to restore the air lock door to OPERABLE status prior to requiring a plant shutdown. In addition, even with both doors failing the seal test, the overall containment leakage rate can still be within limits.

Required Action C.2 requires that one door in the affected containment air lock must be verified to be closed within the 1 hour Completion Time. This specified time period is consistent with the ACTIONS of LCO 3.6.1, which requires that containment be restored to OPERABLE status within 1 hour.

Additionally, the affected air lock(s) must be restored to OPERABLE status within the 24 hour Completion Time. The specified time period is considered reasonable for restoring an inoperable air lock to OPERABLE status, assuming that at least one door is maintained closed in each affected air lock.

D.1 and D.2

If the inoperable containment air lock cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.2.1

Maintaining containment air locks OPERABLE requires compliance with the leakage rate test requirements of ~~10 CFR 50, Appendix J (Ref. 1), as modified by approved exemptions~~ the Containment Leakage Rate Testing Program. This SR reflects the leakage rate testing requirements with regard to air lock leakage (Type B leakage tests). The acceptance criteria were established within the Containment Leakage Rate Testing Program ~~during initial air lock and containment OPERABILITY testing under 10CFR50, Appendix J, Option B~~. The periodic testing requirements verify that the air lock leakage does not exceed the allowed fraction of the overall containment leakage rate. The Frequency is also required by ~~Appendix J (Ref. 1), as modified by approved exemptions.~~

(Continued)

3.6.3 Containment Isolation Valves

ADDITIONAL INFORMATION NO: Q 3.6.3-1 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 1-04 A (CTS 1.0)
DOC 1-01 LG
CTS 1.7.a (1.8.a for Diablo Canyon)
CTS 3/4.6.1.1
CTS 4.6.1.1.b
ITS SR 3.6.3.1, SR 3.6.3.2, SR 3.6.3.3, SR 3.6.3.4, SR 3.6.3.8 and Associated Bases

CTS 1.7 (1.8 in Diablo Canyon) defines CONTAINMENT INTEGRITY. A markup of CTS 1.7/1.8 is provided in the CTS markup of CTS 1.0. DOC 1-04 A (CTS 1.0) states that the definition of CONTAINMENT INTEGRITY is deleted from the CTS/ITS. DOC 1-01 LG in CTS 3.6 states that the definition requirements have been relocated to the Bases for ITS 3.6.1. Both of these justifications are incorrect. CTS 1.7.a (1.8.a in Diablo Canyon) specifies that all penetrations required to be closed during accident conditions are either capable of being closed by an OPERABLE containment automatic isolation valve system or closed by manual valves, blind flanges or deactivated automatic valves secured in their closed positions. This requirement has been relocated to the Bases of ITS 3.6.1, but it is also the basis for ITS SR 3.6.3.1, SR 3.6.3.2, SR 3.6.3.3, SR 3.6.3.4 and SR 3.6.3.8. No justification is provided for this Administrative change in CTS 1.0.

Comment: Revise the CTS markup and provide a discussion and justification for this Administrative change.

FLOG RESPONSE: DOC 1-35 A (CTS 1.0) has been added to read:

"CTS 1.7.a (1.8.a for Diablo Canyon) specifies that all penetrations required to be closed during accident conditions are either capable of being closed by an OPERABLE containment automatic isolation valve system or closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions. Consistent with NUREG-1431, this requirement from the definition of CONTAINMENT INTEGRITY would be included in the Bases of ITS 3.6.1 and would be addressed by the combination of surveillance requirements ITS SR 3.6.3.1, SR 3.6.3.2 (not applicable to CPSES), SR 3.6.3.3, SR 3.6.3.4 and SR 3.6.3.8. This change would be classified as Administrative (A) because the requirements of CTS 1.7.a/1.8.a would be retained in the combined surveillance requirements of ITS 3.6.3, "Containment Isolation Valves."

Also, see the FLOG response to Comment 3.6.1-1 regarding the relocation of the CONTAINMENT INTEGRITY definition requirements.

ATTACHED PAGES:

1.0 Encl 2	1-2
1.0 Encl 3A	5
1.0 Encl 3B	4

1.~~01~~ DEFINITIONS

CHANNEL FUNCTIONAL TEST

1.7 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels - the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY including required alarm and/~~or~~ trip functions, or — 01-01-A

b. Bistable channels - the injection of a simulated or actual signal into the sensor to verify OPERABILITY including required alarm and/~~or~~ trip functions, or — 01-01-A

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/~~or~~ trip functions. — 01-01-A

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. — 01-30-A

~~CONTAINMENT INTEGRITY~~ — Q3.6.1-1

~~1.8 CONTAINMENT INTEGRITY shall exist when:~~ — 01-04-~~X~~LG

~~a. All penetrations required to be closed during accident conditions are either:~~

~~1. Capable of being closed by an OPERABLE containment automatic isolation valve system, or~~ — Q3.6.3-1 01-35-A

~~2. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.~~

~~b. All equipment hatches are closed and sealed.~~ — Q3.6.2-1 01-36-A

~~c. Each air lock is in compliance with the requirements of Specification 3.6.1.3.~~

~~d. The containment leakage rates are within the limits of specification 3.6.1.2 and~~ ~~as determined by Surveillance Requirement 4.6.1.1c are within the limits listed in the Bases for Specification 3.6.1.1~~ Q3.6.1-5

~~e. The sealing mechanism associated with each penetration (e.g., welds, bellows or O-rings) is OPERABLE.~~ — 01-37-A Q3.6.1-3

~~CONTROLLED LEAKAGE~~

~~1.9 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.~~ — 01-05-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, and WOG-90, Rev. 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, the definitions of COT, [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. 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.
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 to clarify the phrase "entire channel;" thus reducing the potential for inconsistent interpretation of the phrase as experienced by a number of plants.
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

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, [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.	Yes	Yes	Yes	Yes
01-31 A	Definitions of specific plant systems which are defined by the plant design are deleted.	Yes	Yes	No, not in CTS	No, not in CTS
01-32 A	The definition of CHANNEL CALIBRATION, COT, [CFT] and TADOT are reworded to be consistent with Industry Traveler TSTF-64. The revised wording clarifies what is meant by "entire channel."	Yes	Yes	Yes	Yes
01-33 A	This change revises the CTS definition of CORE ALTERATIONS to delete "or manipulation" and "conservative."	Yes	Yes	Yes	Yes

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

1.0 Encl 3A - page 5

01-35-A CTS 1.7.a (1.8.a for Diablo Canyon) specifies that all penetrations required to be closed during accident conditions are either capable of being closed by an OPERABLE containment automatic isolation valve system or closed by manual valves, blind flanges or deactivated automatic valves secured in their closed positions. Consistent with NUREG-1431, this requirement from the definition of CONTAINMENT INTEGRITY would be included in the Bases of ITS 3.6.1 and would be addressed by the combination of surveillance requirements ITS SR 3.6.3.1, SR 3.6.3.2 (not applicable to CPSES), SR 3.6.3.3, SR 3.6.3.4 and SR 3.6.3.8. This change would be classified as Administrative (A) because the requirements of CTS 1.7.a/1.8.a would be retained in the combined surveillance requirements of ITS 3.6.3, "Containment Isolation Valves."

1.0 Encl 3B - page 4

01-35-A CTS 1.7.a (1.8.a for Diablo Canyon) specifies that all penetrations required to be closed during accident conditions are either capable of being closed by an OPERABLE containment automatic isolation valve system or closed by manual valves, blind flanges or deactivated automatic valves secured in their closed positions. Consistent with NUREG-1431, this requirement from the definition of CONTAINMENT INTEGRITY would be included in the Bases of ITS 3.6.1 and would be addressed by the combination of surveillance requirements ITS SR 3.6.3.1, SR 3.6.3.2 (not applicable to CPSES), SR 3.6.3.3, SR 3.6.3.4 and SR 3.6.3.8.

Applicability:

DC	Yes
CP	Yes
WC	Yes
CA	Yes

ADDITIONAL INFORMATION NO: Q 3.6.3-4 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 7-03 A
CTS 4.6.1.7.1
ITS SR 3.6.3.1 and Associated Bases

CTS 4.6.1.7.1 requires the purge valves to be verified locked closed or blank flanged at least once per 31 days. The CTS has been modified to provide an allowance for one purge valve in the flow path to be open to repair excessive leakage while in the ITS Action for an inoperable purge valve due to excessive leakage. This change designated DOC 7-03 A is characterized as an Administrative change. This is incorrect. The CTS does not currently have this allowance and the change cannot be characterized as Administrative because of consistency with another Less Restrictive change. The change is a Less Restrictive change. See Comment Number 3.6.3-5.

Comment: Provide a discussion and justification for this Less Restrictive change.

FLOG RESPONSE: DOC 7-03 A has been revised to be DOC 7-03 LS-26 and the discussion and justification for this Less Restrictive change has been provided.

This Comment is no longer applicable to DCPP based on response to Comment Number 3.6.3-5.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.3-5 **APPLICABILITY:** DC

REQUEST:

DOC 7-03 A
CTS 4.6.1.7.1
CTS 4.6.1.7.2
STS SR 3.6.3.1 and Associated Bases

DCPP CTS 4.6.1.7.1 verifies that the containment purge supply and exhaust valves and vacuum/pressure relief isolation valves are closed at least once per 31 days. The CTS has been modified to provide an allowance for one valve in the flow path to be open to repair excessive leakage while in ITS ACTION D. This change is designated DOC 7-03 A. The proposed change is associated with STS SR 3.6.3.1 which deals with sealed closed purge valves. The DCPP ITS markup shows that STS SR 3.6.3.1 is not used. In addition, the CTS already allows the subject valves to be opened per CTS 4.6.1.7.2. Therefore, DOC 7-03 A is not applicable to DCPP.

Comment: Revise the CTS markup to delete DOC 7-03 A.

FLOG RESPONSE: DCPP CTS 4.6.1.7.1 markup is revised to remove DOC 7-03-A and the words "except for one valve in a penetration flow path while in the action for 3.6.1.7 for excessive leakage." This is appropriate since Note 1 in DCPP CTS 3.6.3 (DOC 11-01-LS13) states: "Penetration flow paths may be opened on an intermittent basis under administrative control."

ATTACHED PAGES:

Enclosure 2	3/4 6-10
Enclosure 3A	6
Enclosure 3B	4

For Information Only Pages:

Enclosure 2	3/4 6-15
Enclosure 3A	9
Enclosure 4	LS13, pages 32 and 33

Q3.6.0-1
01-07-A
07-01-A

LIMITING CONDITION FOR OPERATION

3.6.1.7 One purge supply line and/or one purge exhaust line of the Containment Purge System may be open or the vacuum/pressure relief line may be open ~~. The vacuum/pressure relief line may be open~~ provided the vacuum/pressure relief isolation valves are blocked to prevent opening beyond 50° (90° is fully open). Operation with any two of these three lines open is permitted. ~~Operation with the purge supply and/or exhaust isolation valves open or with the vacuum/pressure relief isolation valves open up to 50° shall be limited to less than or equal to 200 hours during a calendar year.~~ Q3.6.3-15 07-04-~~R~~ LG

APPLICABILITY: MODES 1, 2, 3, and 4. 11-02-A

ACTION: ~~** ***~~ 03-13-A

~~With a containment purge supply and/or exhaust isolation valve open or the vacuum/pressure relief isolation valves open up to 50° for more than 200 hours during a calendar year or the Containment Purge System open and the vacuum/pressure relief lines open, or with the vacuum/pressure relief isolation valves open beyond 50°~~ With two containment purge supply or exhaust valves or two vacuum/pressure relief valves on the same penetration inoperable for reasons other than leakage, close the open isolation valve(s) or isolate the penetration(s) flowpath(s) within 1 hour; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 07-04-~~R~~ LG Q3.6.3-15 07-05-A 11-12-A

(new) One or more penetration flow paths with one or more containment purge or vacuum/pressure relief valves not within purge valve leakage limits. Within 24 hours isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange. Verify the affected penetration flow path is isolated once per 31 days for isolation devices outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment* and perform Surveillance 4.6.3.4 for the resilient seal purge valves closed to comply with this Required Action ~~E-1D~~ 1, once per 92 days. 07-02-LS9 01-04-LS1 07-13-M

SURVEILLANCE REQUIREMENTS Q3.6.3-35

4.6.1.7.1 The position of the containment purge supply and exhaust isolation valves and the vacuum/pressure relief isolation valves shall be determined closed at least once per 31 days ~~except for one valve in a penetration flow path while in action 3.6.1.7 for excessive leakage.~~ 07-03-A Q3.6.3-5

~~4.6.1.7.2 The cumulative time that the purge supply and/or exhaust isolation valves or the vacuum/pressure relief isolation valves have been open during a calendar year shall be determined at least once per 7 days.~~ 07-04-~~R~~ LG Q3.6.3-15

4.6.1.7.3 The 12-inch vacuum/pressure relief isolation valves shall be verified to be blocked to prevent opening beyond 50° at least ~~once per 18 months.~~ each REFUELING INTERVAL ED DC-ALL-001

* Isolation devices in high radiation areas may be verified by use of administrative means. 01-04-LS1

** Separate Condition entry is allowed for each penetration flow path. 11-02-A

*** Enter applicable Conditions and Required Actions of the "Containment" LCO when leakage results in exceeding the overall containment leakage rate. 03-13-A

03.6.0-1
01-07-A

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 Each containment isolation valve shall be OPERABLE.* #

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: **, ***, ****

With one or more ~~of the~~ penetration flow paths with one isolation valve~~(s)~~ inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and: 11-12-A

~~a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or~~ 11-16-A

b. Isolate each affected penetration flow path within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or 11-12-A

c. Isolate each affected penetration flow path within 4 hours by use of at least one closed manual valve or blind flange or check valve with flow secured; or 11-12-A 01-03-A

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Not applicable to Main Steam Safety Valves (MSSVs), Main Steam Isolation Valves (MSIVs), Main Feedwater Isolation Valves (MFIVs), ~~Main Feedwater Regulating Valves (MFRVs) and Associated Bypass Valves,~~ and Atmospheric Dump Valves (ADVs). 11-11-A 03.6.3-10

NOTE 1 * ~~Locked or sealed closed valves~~ Penetration flow paths may be opened on an intermittent basis under administrative control. 11-01-LS13

(new) With one or more penetration flow paths with two containment isolation valves inoperable, isolate the affected penetration flow path within 1 hour by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 11-04-A

(new) With one or more penetration flow paths of the type configured with only one containment isolation valve and a closed system, with one containment isolation valve inoperable, isolate the affected penetration flow path within 72 hours by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 11-05-LS14

SURVEILLANCE REQUIREMENTS

~~4.6.3.1 Each containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.~~ 11-06-TR3 11-09-A

DESCRIPTION OF CHANGES TO TS SECTION 3/4.6
(Continued)

CHANGE NUMBER	NSHC	DESCRIPTION
07-03	~~A~~ LS 26	Q3.6.3-5 A change [ ] consistent with NUREG-1431, SR 3.6.3.1, is added to provide an allowance for one isolation valve in a penetration flow path to be open when performing the Required Actions for leakage not within limits. This is actually a consistency change which goes with the revised Required Actions (see 07-02-LS9 above). The Required Action allows continued operation with leakage not in limits and this change to the SR allows a valve to be opened to repair the excessive leakage. This change is not applicable to DCPP, See Conversion Comparison Table (Encl. 3B).
07-04	~~R~~ LG	The time limit restrictions on opening the [containment purge supply and exhaust and pressure/vacuum relief flow paths] and the requirements to periodically accumulate the time that the valves have been open would be relocated (moved) to licensee controlled documents. Insert Q3.6.3-15
07-05	A	Consistent with NUREG-1431, an ACTION is added for two valves inoperable in one penetration flow path. The change is administrative since the CTS would have relied on [CTS LCO 3.6.1.7 ACTION and] LCO 3.0.3 which has essentially the same requirements. Q3.6.3-16
07-06	LS11	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-07	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-08	M	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-09	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-10	LS9	A Note is added to clarify that leakage rate testing is not required for containment purge valves with resilient seals when the penetration flow path is isolated by a leak tested blank flange. The purpose of the leak testing requirement is to ensure containment leakage integrity during an accident, and thereby limit accident consequences. Isolation of the flow path with a leak tested blind flange accomplishes this safety function and additional leak testing of the valves in the flow path is redundant and unnecessary.
07-11	LS25	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-01	LG	Consistent with NUREG-1431, the LCO references to suction flowpath and manual transfer of suction to containment sump have been deleted. These details are included within the OPERABILITY requirements of the containment spray system (CSS) (as required by CTS 4.6.2.1 and as further described in the Bases). There is no technical change resulting from this deletion.
07-13	M	Insert Q3.6.3-35

CHANGE NUMBER	NSHC	DESCRIPTION
11-01	LS13	Consistent with NUREG-1431, LCO 3.6.3, a Note is added to the ACTIONS that apply to all containment isolation valves. The first Note allows containment isolation valves that are required to be closed [ ] to be opened under administrative controls. This is acceptable based on the administrative controls consisting of a dedicated operator at the valve in continuous communication with the control room. This control provides protection equivalent to the automatic isolation system. [ ] Opening on an intermittent basis under administrative controls is allowed for certain valves by references made from CTS 1.8 and 4.6.1.1 of the CTS.
11-02	A	~~Consistent with NUREG-1431 LCO 3.6.3, a Note is added to the ACTIONS to allow separate Condition entry for each penetration flow path. The Note provides guidance and clarification for the use of TS and is consider administrative in nature.~~ Insert
11-03	A	This Note is added to the ACTIONS to enter applicable Conditions and Required ACTIONS for systems made inoperable by containment isolation valves. Insert
11-04	A	NUREG-1431 adds a new Condition to the current Containment Isolation Valve TS to cover the case where two containment isolation valves in a penetration flow path are inoperable. The CTS addresses only the condition of one valve inoperable in a penetration flow path. If two valves were inoperable on the same penetration, LCO 3.0.3 would be entered. Consistent with NUREG-1431, a completion time of 1 hour is provided to isolate the penetration flow path. This is the same amount of time allowed by LCO 3.0.3 before a power reduction ACTION is specified and is administratively similar to the existing requirements.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
06-01	Not used	N/A	N/A	N/A	N/A
06-02 A	The inspection requirements associated with structural integrity of the exposed accessible interior and exterior containment surfaces, are contained in Appendix J, Option B and in RG 1.163.	Yes No, see Amendments 120/118. 3.6.1.6 no longer in CTS	Yes Φ3.6.1-5	No, 3.6.1.6 not in CTS.	No, 3.6.1.6 not in CTS.
06-03 TR2	Reporting requirement for containment structural integrity are deleted.	Yes	Yes	No, 3.6.1.6 not in CTS.	No, 3.6.1.6 not in CTS.
06-04 M	AOT for containment structural integrity not established decreased from 24 hours to 1 hour.	Yes	Yes	No, 3.6.1.6 not in CTS.	No, 3.6.1.6 not in CTS.
07-01 A	The LCO and SRs for containment ventilation/purge valves are now included in ITS 3.6.3 for Containment Isolation Valves.	Yes	Yes	Yes	Yes
07-02 LS9	The Required Actions for a containment ventilation/purge valve with a leakage rate which exceeds the acceptance criteria is revised to be stated on a per penetration flow path bases.	Yes	Yes	Yes	Yes
07-03 ~~X~~ LS261	Clarification is added to allow one isolation valve in a penetration flow path to be opened for repairs when performing the Required Actions for leakage rate not within limits.	~~Yes~~ No, see CN 11.01-LS13	Yes Φ3.6.3-5	Yes	Yes
07-04 ~~X~~ LG	The time limit restrictions on opening the [pressure/vacuum relief] and the requirements to periodically accumulate the time that the valves have been open would be ~~relocated~~ moved to licensee controlled documents.	Yes, relocated to an ECG. Φ3.6.3-15	No, CPSES does not have restrictions on these valves.	Yes, relocated to USAR Chapter 16	Yes, relocated to FSAR Chapter 16
07-05 A	An ACTION is added for two valves inoperable in one penetration flow path.	Yes	Yes	Yes	Yes

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS13
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

A Note is added to the ACTIONS in accordance with the NUREG-1431, LCO 3.6.3, Containment Isolation Valves which provides an allowance to open, under administrative controls, containment isolation valves required to be closed [ ]. This is acceptable based on administrative controls consisting of a dedicated operator at the valve in continuous communication with the control room. These controls provide for the capability to manually close the isolation valve should an automatic isolation be required. [ ]

This proposed TS change has been evaluated and it has been determined that it involves NSHC. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

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

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

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

   The proposed change involves changing the Containment Isolation Valve TS to more closely agree with the Westinghouse Standard TS (NUREG-1431). The change does not result in any hardware changes. The isolation valves act to isolate the containment penetrations in the event of a DBA and serve to limit the consequences of accidents. The proposed change continues to ensure that the isolation valves will perform their required function and limit the consequences of design basis events as described in the FSAR and that the results of the analyses in the FSAR remain bounding. The proposed change does not impose any new safety analyses limits or alter the plant's ability to detect and mitigate events. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed change involves changing the Containment Isolation Valve TS to more closely agree with the Westinghouse Standard TS (NUREG-1431) and 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. Thus, 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 revises the Containment Isolation Valve TS to be consistent with the Westinghouse Standard TS (NUREG-1431) and does not involve a significant reduction in a margin of safety. The proposed change has been developed considering the importance of the containment isolation valves in limiting the consequences of a design basis event and the concerns for the plant's ability to perform required operational support functions with necessary systems isolated. The proposed change allows for protection commensurate with that provided by an automatic isolation system. Considering the probability of an event that would challenge the containment boundary, the alternative protection provided by this change and the operational requirements to occasionally open these valves, the proposed change is acceptable and any reduction in the margin of safety insignificant.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above evaluation, it is concluded that the activities associated with NSHC "LS13" resulting from the conversion to the ITS format satisfy the NSHC standards of 10 CFR 50.92(c), and accordingly a NSHC finding is justified.

ADDITIONAL INFORMATION NO: Q 3.6.3-6 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 11-02 A
CTS 3.6.1.7 ACTIONS
CTS 3.6.3 ACTIONS
ITS 3.6.3 ACTIONS Note 2

A Note is added to CTS 3.6.1.7 and CTS 3.6.3 ACTIONS to permit separate Condition entry for each penetration flow path. The justification DOC 11-02 A states that the change is an Administrative change that is consistent with NUREG-1431. Consistency with the NUREG is not a basis for acceptability of a change. The change must be justified on its own merits based on its applicability to the unit. In addition, this change in CTS markup for Callaway is labeled in "Insert C for page 3/4 6-11" as 11-02 LS; it should be 11-02A.

Comment: Provide additional discussion and justification for this Administrative change, and correct the discrepancy in the CTS markup for Callaway.

FLOG RESPONSE: In response to this comment, revise DOC 11-02-A to read:

CTS LCOs 3.6.1.7 and 3.6.3 have been revised to incorporate ITS LCO 3.6.3 Note 2 to clarify the Required Actions. Note 2 provides clarification that for the purpose of the associated LCO, "Separate Condition entry is allowed for each penetration flow path." This is acceptable because the Required Actions for each Condition provide appropriate compensatory actions for each inoperable Containment Isolation Valve. Complying with the Required Actions will allow for continued operation. Subsequent Condition entry and application of associated Required Actions govern subsequent inoperable Containment Isolation Valves. This is an administrative change with no impact on safety because the clarifications provided by ITS LCO 3.6.3 Note 2 are consistent with the existing practices of the CTS. This change is consistent with NUREG-1431.

In addition, the mark-up of CTS 3.6.1.7 for Callaway, labeled "Insert C for pages 3/4.6-11" as 11-02LS has been changed to 11-02A.

ATTACHED PAGES:

Encl 3A 9

CHANGE NUMBER	NSHC	DESCRIPTION
11-01	LS13	Consistent with NUREG-1431, LCO 3.6.3, a Note is added to the ACTIONS that apply to all containment isolation valves. The first Note allows containment isolation valves that are required to be closed [ ] to be opened under administrative controls. This is acceptable based on the administrative controls consisting of a dedicated operator at the valve in continuous communication with the control room. This control provides protection equivalent to the automatic isolation system. [ ] Opening on an intermittent basis under administrative controls is allowed for certain valves by references made from CTS 1.8 and 4.6.1.1 of the CTS.
11-02	A	Consistent with NUREG-1431 LCO 3.6.3, a Note is added to the ACTIONS to allow separate Condition entry for each penetration flow path. The Note provides guidance and clarification for the use of TS and is consider administrative in nature. Insert
11-03	A	This Note is added to the ACTIONS to enter applicable Conditions and Required ACTIONS for systems made inoperable by containment isolation valves. Insert
11-04	A	NUREG-1431 adds a new Condition to the current Containment Isolation Valve TS to cover the case where two containment isolation valves in a penetration flow path are inoperable. The CTS addresses only the condition of one valve inoperable in a penetration flow path. If two valves were inoperable on the same penetration, LCO 3.0.3 would be entered. Consistent with NUREG-1431, a completion time of 1 hour is provided to isolate the penetration flow path. This is the same amount of time allowed by LCO 3.0.3 before a power reduction ACTION is specified and is administratively similar to the existing requirements.

11-02-A:

CTS LCOs 3.6.1.7 and 3.6.3 have been revised to incorporate ITS LCO 3.6.3 Note 2 to clarify the Required Actions. Note 2 provides clarification that for the purpose of the associated LCO, "Separate Condition entry is allowed for each penetration flow path." This is acceptable because the Required Actions for each Condition provide appropriate compensatory actions for each inoperable Containment Isolation Valve. Complying with the Required Actions will allow for continued operation. Subsequent Condition entry and application of associated Required Actions govern subsequent inoperable Containment Isolation Valves. This is an administrative change with no impact on safety because the clarifications provided by ITS LCO 3.6.3 Note 2 are consistent with the existing practices of the CTS. The change is consistent with NUREG-1431.

ADDITIONAL INFORMATION NO: Q 3.6.3-7 **APPLICABILITY:** DC, WC, CA

REQUEST:

DOC 11-03 A
CTS 3.6.1.7 ACTIONS
CTS 3.6.3 ACTIONS
ITS 3.6.3 ACTIONS Note 3

A Note is added to CTS 3.6.1.7 and CTS 3.6.3 ACTIONS to entail Applicable Conditions and Required Actions for systems made inoperable by containment isolation valves. The justification DOC 11-03 A just states that the Note is added without providing any additional justification as to why it can be added.

Comment: Provide additional discussion and justification for this Administrative change.

FLOG RESPONSE: DOC 11-03 A is revised to add the following justification: "The requirement to enter applicable Conditions and Required Actions is current operating practice, as all applicable LCOs must be met. The Note specifically states what is already required by CTS, and therefore its addition is considered to be an administrative change. This administrative change is consistent with NUREG-1431."

ATTACHED PAGES:

Encl 3A 9

CHANGE NUMBER	NSHC	DESCRIPTION
11-01	LS13	Consistent with NUREG-1431, LCO 3.6.3, a Note is added to the ACTIONS that apply to all containment isolation valves. The first Note allows containment isolation valves that are required to be closed [ ] to be opened under administrative controls. This is acceptable based on the administrative controls consisting of a dedicated operator at the valve in continuous communication with the control room. This control provides protection equivalent to the automatic isolation system. [ ] Opening on an intermittent basis under administrative controls is allowed for certain valves by references made from CTS 1.8 and 4.6.1.1 of the CTS.
11-02	A	Consistent with NUREG-1431 LCO 3.6.3, a Note is added to the ACTIONS to allow separate Condition entry for each penetration flow path. The Note provides guidance and clarification for the use of TS and is consider administrative in nature. Insert
11-03	A	This Note is added to the ACTIONS to enter applicable Conditions and Required ACTIONS for systems made inoperable by containment isolation valves. Insert
11-04	A	NUREG-1431 adds a new Condition to the current Containment Isolation Valve TS to cover the case where two containment isolation valves in a penetration flow path are inoperable. The CTS addresses only the condition of one valve inoperable in a penetration flow path. If two valves were inoperable on the same penetration, LCO 3.0.3 would be entered. Consistent with NUREG-1431, a completion time of 1 hour is provided to isolate the penetration flow path. This is the same amount of time allowed by LCO 3.0.3 before a power reduction ACTION is specified and is administratively similar to the existing requirements.

11-03-A The requirement to enter applicable Conditions and Required Actions is current operating practice, as all applicable LCOs must be met. The Note specifically states what is already required by CTS, and therefore its addition is considered to be an administrative change. This administrative change is consistent with NUREG-1431.

ADDITIONAL INFORMATION NO: Q 3.6.3-8 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 11-09 A
JFD 3.6-7
CTS 4.6.3.3
ITS SR 3.6.3.5 and Associated Bases

CTS 4.6.3.3 verifies that the isolation time of each power-operated or automatic valve including check valves is within limits. The CTS is modified to be consistent with TSTF-46 Rev 1 by deleting the reference to "each power operated" valve, and to limit the required verification to each automatic isolation valve, including check valves. Even though TSTF-46 Rev 1 has been implemented properly in ITS SR 3.6.3.5 (See Comment Number 3.6.3-9), the changes made to CTS 4.6.3.3 are not in conformance with TSTF-46 and the justifications DOC 11-09 A and JFD 3.6-7 discuss the actual changes made to CTS 4.6.3.3 and not the TSTF-46 change. The actual change described above and in DOC 11-09 A would require isolation time testing of all automatic isolation valves including check valves. TSTF-46 limits isolation time testing to only automatic power operated isolation valves which excludes check valves. Thus the change is a combination of Administrative (deletion of power-operated valves) and Less Restrictive (deletion of check valves).

Comment: Revise the CTS markup of CTS 4.6.3.3 to be consistent with the changes associated with TSTF-46. Provide additional discussion and justification for these Administrative and Less Restrictive changes.

FLOG RESPONSE: The markup of CTS 4.6.3.3; the justification of DOC 11-09-A, mark-up of ITS SR 3.6.3.5 Bases (DCPP only); and the justification of JFD 3.6-7 have been revised to be consistent with TSTF-46, Rev.1, in using the term "Automatic Power Operated Containment Isolation Valve." The FLOG believes that this change is an "Administrative" change. The deletion of check valves from testing under "automatic valves" has always been a part of the licensing basis. This is specified under "...pursuant to Specification 4.0.5." This Specification refers to ASME Section XI (now ASME OM-1987, Part 10). The section on testing of check valves refers to stroke testing but not to time testing. DOC 11-09-A struck this reference to make the transition to ITS and TSTF-46, Rev. 1, which will specifically call out this exception by its choice of words.

ATTACHED PAGES:

Encl 2	3/4 6-16
Encl 3A	11
Encl 3B	9
Encl 5B	B3.6-24
Encl 6A	2
Encl 6B	1

SURVEILLANCE REQUIREMENTS (Continued)

Q3.6.3-9
Q3.6.3-8

power operated

4.6.3.3 The isolation time of each testable ~~power-operated or~~ automatic containment isolation valve that is not locked, sealed, or otherwise secured shall be determined to be within its limit when tested pursuant to ~~Specification 4.0.5~~ the Inservice Testing Program.

~~11-07-LS~~
11-09-A
11-14-A
Q3.6.3-12

4.6.3.4 Each containment ventilation isolation valve, except the air sample supply and return valves, shall be demonstrated OPERABLE every 184 days and within ~~24 hours~~ 92 days after ~~each closing of~~ opening the valve, ~~except when the valve is being used for multiple cycling, then at least once per 72 hours~~, by verifying leakage rates in accordance with the Containment Leakage Rate Testing Program. This surveillance is not required when the penetration flow path is isolated by a leak tested blank flange.

11-13-LS22
07-10-LS9
11-19-M
Q3.6.3-18

Φ3.6.3-9
Φ3.6.3-8

CHANGE NUMBER	NSHC	DESCRIPTION
11-09	A	Consistent with NUREG-1431 and industry Traveler TSTF-46, Rev. 1, the isolation time surveillance is revised to delete the reference to verifying "each power operated" containment isolation valve and only require verification of each "automatic isolation valve." Containment isolation valves which are power operated but do not receive a containment isolation signal (i.e. can be remotely operated), do not have an isolation time assumed in the accident analysis since they require operator action. Therefore, deleting the reference to power operated isolation valve time testing is a clarification that reduces the potential for misinterpreting the requirements of this SR while maintaining the assumptions of the accident analysis.
11-10	A	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
11-11	A	A Note is added to the containment isolation specification that the LCO is not applicable to main steam safety valves (MSSVs), main steam isolation valves (MSIVs), feedwater isolation valves (~~FIVs~~), [ ] and atmospheric dump valve (ADVs). ~~License Amendment (LA) 73/72 (LAR 91-08, 12/26/91) removed the listing of containment isolation valves (Table 3.6-1) and authorized revision of the list under the control of the Administrative section of the TS (e.g., under 10 CFR 50.59). These valves are currently not considered to have a containment isolation function.~~ This note is consistent with current licensing bases.
11-12	A	The phase "flow path" is added for clarification and constancy with NUREG-1431. This specification is based on GDC 55, 56, and 57 which address the proper isolation for each "line" that penetrates containment. Licensees have always been required to assure that proper protection is provided for each line or flow path that passes through containment even if multiple flow paths share the same penetration. In this specification, the term "penetration" has always meant each flow path that penetrates containment. Adding the words "flow path" to the specification clarifies this meaning.
11-13	LS22	This change revises the DCPP containment ventilation isolation valve leak rate surveillance frequency ~~from 30 months to every 184 days and~~ from 24 hours to 92 days after opening a valve. This change is consistent with NUREG-1431 and NRC resolution of Multi-Plant Action No. B-20, "Containment Leakage Due to Seal Deterioration." These valves have a good service record and have consistently met leakage rate requirements. The revised 92 day frequency still reflects conservative margin to compensate for degradation of the resilient seats in these valves.

power operated containment
main
MFIVs Φ3.6.3-10
Insert
Φ3.6.3-18
and at least once every 72 hours during multiple cycling

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
11-04 A	NUREG-1431 adds a new Condition to the current Containment Isolation Valve TS to address the case where two containment isolation valves in a penetration flow path are inoperable.	Yes	Yes	Yes	Yes
11-05 LS14	A new Condition is added to the current Containment Isolation Valve TS to cover the case where one containment isolation valve is inoperable in a penetration flow path of the type configured with only one containment isolation valve and a closed system. Also, the Completion Time for this Condition allows 72 hours to isolate an inoperable isolation valve associated with a closed system.	Yes	Yes	No, Wolf Creek does not use GDC 57 valves.	No, Callaway does not use GDC 57 valves.
11-06 TR3	The CTS SR to demonstrate the OPERABILITY of each containment isolation valve by performance of a cycling and isolation time test prior to returning the valve to service after maintenance, repair, or replacement work on the valve or its associated actuator, control, or power circuit has been deleted.	Yes	Yes	Yes	Yes
11-07 LG	The descriptive material regarding the required containment isolation valve actuation signals in the CTS SR is moved to the Bases.	Yes	Yes	Yes	Yes
11-08 TR1	The actuation surveillance is revised consistent with NUREG-1431 to clarify that an actual signal as well as a test signal may be used to verify actuation.	Yes	Yes	Yes	Yes
11-09 A	The isolation time surveillance is revised to delete the reference to verifying "each power operated" containment isolation valve and only require verification of each "automatic isolation valve."	Yes	Yes	Yes	Yes
11-10 A	The note providing a one time test interval extension that is no longer applicable is deleted.	No, CTS does not contain this Note.	Yes	No, CTS does not contain this Note.	No, CTS does not contain this Note.

power operated containment

Q3.6.3-8
Q3.6.3-9

BASES

~~of it being mispositioned between refuelings is small. Therefore, it is reasonable that it is only required to be verified closed after each drainage of the canal.~~

SR 3.6.3.5

Verifying that the isolation time of each ~~power operated and~~ automatic power operated containment isolation valve is within limits is required to demonstrate OPERABILITY. The isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analyses. The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program. ~~or 92 days.]~~ Q3.6.3-8 Q3.6.3-9

SR 3.6.3.6 Not Used

SURVEILLANCE REQUIREMENTS (Continued)

~~In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.6 requires verification of the operation of the check valves that are testable during unit operation. The Frequency of 92 days is consistent with the Inservice Testing Program requirement for valve testing on a 92 day Frequency.~~

SR 3.6.3.7

For Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ and Containment Pressure/Vacuum Relief valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J, Option B is required to ensure OPERABILITY. Operating experience has demonstrated that this type of seal has the potential to degrade in a shorter time period than do other seal types. Based on this observation and the importance of maintaining ~~this~~ these penetrations leak tight (due to the direct path between containment and the environment), a Frequency of 184 days was established as part of the NRC resolution of Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" (Ref. ~~3~~ 4).

Additionally, this SR must be performed within 92 days after opening the valve. The 92 day Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (beyond that occurring to a valve that has not been opened). Thus, decreasing the interval (from 184 days) is a prudent measure after a valve has been opened.

The leak rate acceptance criteria for the containment purge supply and exhaust, ~~hydrogen purge,~~ and containment pressure/vacuum relief valves are in accordance with the Containment Leakage Rate Testing Program.

(Continued)

CHANGE NUMBER	JUSTIFICATION
3.6-5	This change is in accordance with TSTF-45, Rev. 1 and revises SR 3.6.3.3 and SR 3.6.3.4 to specify that only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed. The position of the locked, sealed, or otherwise secured valves was verified before the valves were locked, sealed, or otherwise secured.
3.6-6	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-7	This change is in accordance with TSTF-46, Rev. 1 and revises SR 3.6.3.5 to delete the reference to verifying the isolation time of "each power operated" containment isolation valve and only require verification of each "automatic isolation valve." Valves credited as containment isolation valves which are power operated (i.e., can be remotely operated) that do not receive a containment isolation signal do not have as isolation time as assumed in the accident analyses since they require operator action. Therefore, deleting reference to power operated isolation valve time testing reduces the potential for misinterpreting the requirements of this SR while maintaining the assumptions of the accident analyses.
3.6-8	Revises the Completion Time for the restoration of containment pressure from 1 hour to [4] hours. The [4] hour Completion Time is consistent with the CTS. The [4] hours [ ]allows the adequate time to take all Required Actions in a controlled manner.
3.6-9	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-10	Replaces the chemical additive tank volume limits in gallons with a tank level limits in percent [ ].
3.6-11	A new Note is added to ITS 3.6.3, Condition A.2 [and C.2] in accordance with Traveler WOG-91. The additional Note applies to isolation devices that are locked, sealed or otherwise secured in position and allows these devices to be verified closed by use of administrative means. It is sufficient to assume that initial establishment of component status (e.g., isolation valves closed) was performed correctly. Subsequently, verification is intended to ensure the component has not been inadvertently repositioned. Given that the function of locking, sealing, or securing components is to ensure the same avoidance of inadvertent repositioning, the periodic reverification should only be a verification of the administrative control that ensures that the component remains in the required state. It would be inappropriate to remove the lock, seal, or other means of securing the component solely to perform an active verification of the required state.
3.6-12	Consistent with SR 3.6.3.8, which provides that actuation position testing is not required for valves locked, sealed, or otherwise secured in their required position under administrative control, this change would provide that isolation time testing is not required for automatic containment isolation valves that are locked, sealed, or otherwise secured in their required position under administrative control. This change is consistent with WOG-91.
3.6-13	A clarifying note is added to SR 3.6.3.7 that would allow that leakage rate testing for containment purge valves with resilient seals is not required when the penetration flow path is isolated by a leak tested blind flange.
3.6-14	This change would incorporate plant specific operability criteria for containment fan cooler units required to meet design functional requirements. These requirements are contained in the CTS.
3.6-15	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-16	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-17	The ACTIONS and SRs of ITS 3.6.3 are modified to reflect DCPP current license bases allowance to open at one time any 2 of 3 the DBA qualified 48 inch purge supply and/or exhaust flow paths and 12 inch vacuum/pressure relief flow paths.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.6-1	This change supports implementation of 10 CFR 50, Appendix J, Option B, approved in November 1995. Testing is performed in accordance with the Containment Leakage Rate Testing Program as described in the Administrative Controls section. This change is consistent with CTS and is in accordance with Traveler TSTF-52.	Yes	Yes, in CTS	Yes	Yes, approved as Amendment 111
3.6-2	This change would extend the testing frequency of containment air lock interlock mechanisms from 184 days to 24 months. This change is in accordance with TSTF-17, Rev. 1.	Yes	Yes	Yes	Yes
3.6-3	Consistent with the CTS, a Note has been added to clarify that the valves listed are not addressed in LCO 3.6.3. These valves utilize the steam generators and associated piping as a closed system inside of containment. These valves also have separate LCOs that provide the appropriate Required Actions in the event these valves are inoperable.	Yes	Yes	Yes	Yes
3.6-4	This change would extend the Completion Time for a closed system flow path with an inoperable isolation valve to 72 hours. This change is in accordance with TSTF-30, Rev. 1.	Yes	Yes	No, WC does not have GDC 57 valves	No, Callaway does not have GDC 57 valves
3.6-5	This change would revise SR 3.6.3.3 and SR 3.6.3.4 to specify that only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed. This change is in accordance with TSTF-45, Rev. 1.	Yes	Yes	Yes	Yes
3.6-6	Consistent with the current CPSES TS, a note is added to SR 3.6.3.4 to clarify that the blind flange on the fuel transfer canal need not be verified closed except after each drainage of the canal.	No	Yes	No	No
3.6-7	This change would revise SR 3.6.3.5 to delete the reference to verifying the isolation time of "each power operated" containment isolation valve and only require verification of each "automatic isolation valve." This change is in accordance with TSTF-46, Rev. 1.	Yes	Yes	Yes	Yes

*power operated containment

P3.6.3-8
P3.6.3-9

ADDITIONAL INFORMATION NO: Q 3.6.3-9 **APPLICABILITY:** DC

REQUEST:

DOC 11-09 A
JFD 3.6-7
CTS 4.6.3.3
STS SR 3.6.3.5 and Associated Bases
ITS SR 3.6.3.5 and Associated Bases

CTS 4.6.3.3 requires the isolation time of each power operated or automatic containment isolation valve be determined to be within limits. STS SR 3.6.3.5 states basically the same thing but the "or" is changed to "and". STS SR 3.6.3.5 has been modified by TSTF-46 Rev 1 which clarifies that the SR only applies to automatic power operated valves. ITS SR 3.6.3.5 and the Associated Bases have been modified to reflect TSTF-46 Rev 1 as justified by DOC 11-09 A and JFD 3.6-7. The changes made to DCPP ITS SR 3.6.3.5 are in accordance with TSTF-46 Rev 1, however, the Associated Bases changes are not in accordance with TSTF-46 Rev 1.

Comment: Revise the ITS Base markup to conform to the approved TSTF-46 Rev 1 or provide additional discussion and justification for the deviations.

FLOG RESPONSE: Consistent with TSTF-46, Rev.1, the term "automatic containment isolation valve" has been revised to read "automatic power operated containment isolation valve." This change was made to CTS SR 4.6.3.3 and the Bases for ITS SR 3.6.3.5. The term "automatic isolation valve" was revised in the remaining locations to read "automatic power operated containment isolation valve." This change was also made to the Enclosures 3A and 3B and Enclosures 6A and 6B discussions of DOC 11-09-A and JFD 3.6-7 .

ATTACHED PAGES:

Encl 2	3/4 6-16
Encl 3A	11
Encl 3B	9
Encl 5B	B3.6-24
Encl 6A	2
Encl 6B	1

SURVEILLANCE REQUIREMENTS (Continued)

Q3.6.3-9
Q3.6.3-8

power operated

4.6.3.3 The isolation time of each testable ~~power-operated or~~ automatic containment isolation valve that is not locked, sealed, or otherwise secured shall be determined to be within its limit when tested pursuant to ~~Specification 4.0.5~~ the Inservice Testing Program.

~~11-07-LG~~
11-09-A
11-14-A
Q3.6.3-12

4.6.3.4 Each containment ventilation isolation valve, except the air sample supply and return valves, shall be demonstrated OPERABLE every 184 days and within ~~24 hours~~ 92 days after ~~each closing of~~ opening the valve, ~~except when the valve is being used for multiple cycling, then at least once per 72 hours~~, by verifying leakage rates in accordance with the Containment Leakage Rate Testing Program. This surveillance is not required when the penetration flow path is isolated by a leak tested blank flange.

11-13-LS22
07-10-LS9
11-19-M
Q3.6.3-18

Q3.6.3-9
Q3.6.3-8

CHANGE NUMBER	NSHC	DESCRIPTION
11-09	A	Consistent with NUREG-1431 and industry Traveler TSTF-46, Rev. 1, the isolation time surveillance is revised to delete the reference to verifying "each power operated" containment isolation valve and only require verification of each "automatic isolation valve." Containment isolation valves which are power operated but do not receive a containment isolation signal (i.e. can be remotely operated), do not have an isolation time assumed in the accident analysis since they require operator action. Therefore, deleting the reference to power operated isolation valve time testing is a clarification that reduces the potential for misinterpreting the requirements of this SR while maintaining the assumptions of the accident analysis.
11-10	A	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
11-11	A	A Note is added to the main containment isolation specification that the LCO is not applicable to main steam safety valves (MSSVs), main steam isolation valves (MSIVs), feedwater isolation valves (~~FIVs~~ MFIVs), [ ] and atmospheric dump valve (ADVs). Q3.6.3-10 ~~License Amendment (LA) 73/72 (LAR 91-08, 12/26/91) removed the listing of containment isolation valves (Table 3.6-1) and authorized revision of the list under the control of the Administrative section of the TS (e.g., under 10 CFR 50.59). These valves are currently not considered to have a containment isolation function.~~ This note is consistent with current licensing bases. Insert
11-12	A	The phase "flow path" is added for clarification and constancy with NUREG-1431. This specification is based on GDC 55, 56, and 57 which address the proper isolation for each "line" that penetrates containment. Licensees have always been required to assure that proper protection is provided for each line or flow path that passes through containment even if multiple flow paths share the same penetration. In this specification, the term "penetration" has always meant each flow path that penetrates containment. Adding the words "flow path" to the specification clarifies this meaning. Q3.6.3-18
11-13	LS22	This change revises the DCPP containment ventilation isolation valve leak rate surveillance frequency ~~from 30 months to every 184 days and~~ from 24 hours and at least once every 72 hours during multiple cycling to 92 days after opening a valve. This change is consistent with NUREG-1431 and NRC resolution of Multi-Plant Action No. B-20, "Containment Leakage Due to Seal Deterioration." These valves have a good service record and have consistently met leakage rate requirements. The revised 92 day frequency still reflects conservative margin to compensate for degradation of the resilient seats in these valves.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
11-04 A	NUREG-1431 adds a new Condition to the current Containment Isolation Valve TS to address the case where two containment isolation valves in a penetration flow path are inoperable.	Yes	Yes	Yes	Yes
11-05 LS14	A new Condition is added to the current Containment Isolation Valve TS to cover the case where one containment isolation valve is inoperable in a penetration flow path of the type configured with only one containment isolation valve and a closed system. Also, the Completion Time for this Condition allows 72 hours to isolate an inoperable isolation valve associated with a closed system.	Yes	Yes	No, Wolf Creek does not use GDC 57 valves.	No, Callaway does not use GDC 57 valves.
11-06 TR3	The CTS SR to demonstrate the OPERABILITY of each containment isolation valve by performance of a cycling and isolation time test prior to returning the valve to service after maintenance, repair, or replacement work on the valve or its associated actuator, control, or power circuit has been deleted.	Yes	Yes	Yes	Yes
11-07 LG	The descriptive material regarding the required containment isolation valve actuation signals in the CTS SR is moved to the Bases.	Yes	Yes	Yes	Yes
11-08 TR1	The actuation surveillance is revised consistent with NUREG-1431 to clarify that an actual signal as well as a test signal may be used to verify actuation.	Yes	Yes	Yes	Yes
11-09 A	The isolation time surveillance is revised to delete the reference to verifying "each power operated" containment isolation valve and only require verification of each "automatic isolation valve."	Yes	Yes	Yes	Yes
11-10 A	The note providing a one time test interval extension that is no longer applicable is deleted.	No, CTS does not contain this Note.	Yes	No, CTS does not contain this Note.	No, CTS does not contain this Note.

power operated containment

Q3.6.3-8
Q3.6.3-9

BASES

~~of it being mispositioned between refuelings is small. Therefore, it is reasonable that it is only required to be verified closed after each drainage of the canal.~~

SR 3.6.3.5

power operated

Verifying that the isolation time of each ~~power operated and~~ automatic containment isolation valve is within limits is required to demonstrate OPERABILITY. The isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analyses. ~~[~~ The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program.~~ or 92 days.]~~ Q3.6.3-8 Q3.6.3-9

SR 3.6.3.6 Not Used

SURVEILLANCE REQUIREMENTS (Continued)

~~In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.6 requires verification of the operation of the check valves that are testable during unit operation. The Frequency of 92 days is consistent with the Inservice Testing Program requirement for valve testing on a 92 day Frequency.~~

SR 3.6.3.7

For Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ and Containment Pressure/Vacuum Relief valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J, Option B is required to ensure OPERABILITY. Operating experience has demonstrated that this type of seal has the potential to degrade in a shorter time period than do other seal types. Based on this observation and the importance of maintaining ~~this~~ these penetrations leak tight (due to the direct path between containment and the environment), a Frequency of 184 days was established as part of the NRC resolution of Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" (Ref. ~~3~~ 4).

Additionally, this SR must be performed within 92 days after opening the valve. The 92 day Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (beyond that occurring to a valve that has not been opened). Thus, decreasing the interval (from 184 days) is a prudent measure after a valve has been opened.

The leak rate acceptance criteria for the containment purge supply and exhaust, ~~hydrogen purge,~~ and containment pressure/vacuum relief valves are in accordance with the Containment Leakage Rate Testing Program.

(Continued)

CHANGE NUMBER	JUSTIFICATION
3.6-5	This change is in accordance with TSTF-45, Rev. 1 and revises SR 3.6.3.3 and SR 3.6.3.4 to specify that only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed. The position of the locked, sealed, or otherwise secured valves was verified before the valves were locked, sealed, or otherwise secured.
3.6-6	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-7	This change is in accordance with TSTF-46, Rev. 1 and revises SR 3.6.3.5 to delete the reference to verifying the isolation time of "each power operated" containment isolation valve and only require verification of each "automatic isolation valve." Valves credited as containment isolation valves which are power operated (i.e., can be remotely operated) that do not receive a containment isolation signal do not have as isolation time as assumed in the accident analyses since they require operator action. Therefore, deleting reference to power operated isolation valve time testing reduces the potential for misinterpreting the requirements of this SR while maintaining the assumptions of the accident analyses.
3.6-8	Revises the Completion Time for the restoration of containment pressure from 1 hour to [4] hours. The [4] hour Completion Time is consistent with the CTS. The [4] hours [ ]allows the adequate time to take all Required Actions in a controlled manner.
3.6-9	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-10	Replaces the chemical additive tank volume limits in gallons with a tank level limits in percent [ ].
3.6-11	A new Note is added to ITS 3.6.3, Condition A.2 [and C.2] in accordance with Traveler WOG-91. The additional Note applies to isolation devices that are locked, sealed or otherwise secured in position and allows these devices to be verified closed by use of administrative means. It is sufficient to assume that initial establishment of component status (e.g., isolation valves closed) was performed correctly. Subsequently, verification is intended to ensure the component has not been inadvertently repositioned. Given that the function of locking, sealing, or securing components is to ensure the same avoidance of inadvertent repositioning, the periodic reverification should only be a verification of the administrative control that ensures that the component remains in the required state. It would be inappropriate to remove the lock, seal, or other means of securing the component solely to perform an active verification of the required state.
3.6-12	Consistent with SR 3.6.3.8, which provides that actuation position testing is not required for valves locked, sealed, or otherwise secured in their required position under administrative control, this change would provide that isolation time testing is not required for automatic containment isolation valves that are locked, sealed, or otherwise secured in their required position under administrative control. This change is consistent with WOG-91.
3.6-13	A clarifying note is added to SR 3.6.3.7 that would allow that leakage rate testing for containment purge valves with resilient seals is not required when the penetration flow path is isolated by a leak tested blind flange.
3.6-14	This change would incorporate plant specific operability criteria for containment fan cooler units required to meet design functional requirements. These requirements are contained in the CTS.
3.6-15	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-16	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-17	The ACTIONS and SRs of ITS 3.6.3 are modified to reflect DCPP current license bases allowance to open at one time any 2 of 3 the DBA qualified 48 inch purge supply and/or exhaust flow paths and 12 inch vacuum/pressure relief flow paths.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
3.6-1	This change supports implementation of 10 CFR 50, Appendix J, Option B, approved in November 1995. Testing is performed in accordance with the Containment Leakage Rate Testing Program as described in the Administrative Controls section. This change is consistent with CTS and is in accordance with Traveler TSTF-52.	Yes	Yes, in CTS	Yes	Yes, approved as Amendment 111
3.6-2	This change would extend the testing frequency of containment air lock interlock mechanisms from 184 days to 24 months. This change is in accordance with TSTF-17, Rev. 1.	Yes	Yes	Yes	Yes
3.6-3	Consistent with the CTS, a Note has been added to clarify that the valves listed are not addressed in LCO 3.6.3. These valves utilize the steam generators and associated piping as a closed system inside of containment. These valves also have separate LCOs that provide the appropriate Required Actions in the event these valves are inoperable.	Yes	Yes	Yes	Yes
3.6-4	This change would extend the Completion Time for a closed system flow path with an inoperable isolation valve to 72 hours. This change is in accordance with TSTF-30, Rev. 1.	Yes	Yes	No, WC does not have GDC 57 valves	No, Callaway does not have GDC 57 valves
3.6-5	This change would revise SR 3.6.3.3 and SR 3.6.3.4 to specify that only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed. This change is in accordance with TSTF-45, Rev. 1.	Yes	Yes	Yes	Yes
3.6-6	Consistent with the current CPSES TS, a note is added to SR 3.6.3.4 to clarify that the blind flange on the fuel transfer canal need not be verified closed except after each drainage of the canal.	No	Yes	No	No
3.6-7	This change would revise SR 3.6.3.5 to delete the reference to verifying the isolation time of "each power operated" containment isolation valve and only require verification of each "automatic isolation valve." This change is in accordance with TSTF-46, Rev. 1.	Yes	Yes	Yes	Yes

*power operated containment

Φ3.6.3-8
Φ3.6.3-9

ADDITIONAL INFORMATION NO: Q 3.6.3-10 **APPLICABILITY:** DC, WC, CA

REQUEST:

DOC 11-11 A
JFD 3.6-3
CTS 3.6.3
STS LCO 3.6.3
ITS LCO 3.6.3 Note and Associated Bases

ITS LCO 3.6.3 contains a Note not contained in CTS 3.6.3 or STS LCO 3.6.3. This Note states that ITS LCO 3.6.3 is not applicable to the Main Steam Safety Valves (MSSVs), Main Steam Isolation Valves (MSIVs) Main Feedwater Isolation Valves (MFIVs), Main Feedwater Regulation Valves (MFRVs), their associated bypass valves, and Atmospheric Steam Dump, Relief or Dump Valves. The justifications for adding this Note (DOC 11-11 A and JFD 3.6-3) state that it is consistent with current licensing basis, the valves are not considered containment isolation valves, and that they have separate ITS LCOs that provide appropriate required actions in the event these valves are inoperable. Nothing in the CTS states or implies that these valves are exempt from this LCO. Furthermore, the staff considers these valves to be containment isolation valves. In addition, the proposed change was submitted to the staff as a generic change to the STS (TSTF-44) and was rejected. The staff considers this change to be a generic change that is beyond the scope of review for this conversion. See Comment Number 3.6.3-24.

Comment: Delete this generic change.

FLOG RESPONSE: Diablo Canyon, Callaway, and Wolf Creek desire to continue to pursue this change. The justification in DOC 11-11-A and JFD 3.6-3 have been modified to state: "A Note is added to the containment isolation specification that the LCO is not applicable to main steam safety valves (MSSVs), main steam isolation valves (MSIVs), main feedwater isolation valves (MFIVs), and [atmospheric dump valves (ADVs)]. The current licensing basis for these valves exempts them from playing a role in establishing or maintaining containment integrity. This is based upon 10 CFR 50.36.c.2 and 3 and 10 CFR 50, Appendix J. There are no surveillances associated with LCO 3.6.1.1 or LCO 3.6.3 which are applicable to these valves.[ ] This Note is consistent with current licensing basis." The application of LCO 3.6.3 to these valves (MSSVs, MFIVs, ADVs (DCPP), ASDVs (CA), ARVs (WC), etc.) would result in two similar LCOs being applicable to the same equipment yet having different ACTION times. The role of ITS LCOs 3.6.1, 3.6.2, and 3.6.3 are to establish containment leak tight integrity through the Containment Leak Rate Program and then maintain it during plant operation. These valves are more complex and have safety functions which require them to be open while containment integrity is established. The isolation function would be required as a result of conditions different from those generally requiring containment isolation. The applicable ITS 3.7 LCOs recognize these conditions and provide appropriate actions. These LCOs require valve operability and provide ACTIONS similar to containment isolation but more conservative for an inoperable valve. An inoperable MSSV (normal operable condition is closed) under ITS LCO 3.7.1 would require restoration or a power reduction within 4 hours (valve fails to open). An

inoperable MSIV under ITS 3.7.2 would require restoration within 8 hours for DCPP and 72 hours for WC and CA or close the valve (in Mode 2) and then proceed to Mode 4. An inoperable MFIV under ITS 3.7.3 would require closure within 72 hours for DCPP and 4 hours for WC and CA and verification every 7 days or the plant would proceed to Mode 4. An inoperable ADV (DCPP), ASDV (CA), or ARV (WC) (normal operable condition is closed) under ITS 3.7.4 would require restoration within 7 days (failure to open). The most conservative applicable operational requirements are found in the associated ITS 3.7 LCO.

DCPP Specific Discussion:

The only CIV requirements that are applicable relate to their design and installation such that they are closed or capable of being closed as required by GDC 57. The ITS LCO 3.6.3 Bases is revised under the discussion concerning the Note to state: "The Containment isolation function of these valves is associated with their design and installation under GDC 57 as a second boundary in a closed system (passive) when the containment environment has potential direct access to the outside environment. The containment isolation valves have no role in establishing or maintaining containment integrity unless the closed system boundary has been breached." The containment isolation function is assured as long as the CIVs are OPERABLE. OPERABILITY is required (both opening and closing) under their respective ITS 3.7 LCOs in Modes 1, 2, and 3. In Mode 4, these valves are normally closed. The STS 3.7 applicable Bases Sections cite low energy levels and the general lack of credible transients that may challenge this boundary which is, at that point, operating well below its design capabilities. While a release of radioactive material to containment is possible in Mode 4, the passive type A leak tested boundary of the closed system is adequate. Mode 4 releases of radioactive materials are more applicable to maintenance of containment integrity for systems with direct contact with the RCS or containment environment. The added Note provides this clarification to aid Operations personnel in understanding the licensing requirements. This discussion is consistent with the following: (1) SER 0, 10/16/74 (states design is consistent with GDC-57), (2) LA 73/72 (relocates containment isolation valve list outside of the TS), (3) FSAR Table 6.2-39 (Notes that these valves have a safety function to be open in a DBA and that they are exempt from Type C leak Testing), (4) Containment Leak Rate Program: Type A, B, and C testing, and (5) IST Plan. The Main Feedwater Regulation Valves (MFRVs) and associated bypass valves should not be included in the Note added to ITS LCO 3.6.3. They are not under GDC-57 and are not associated with containment isolation.

Enclosed is the following plant specific documentation to support the above discussion:

FSAR Table 6.2-39
SER 0, 10/16/74
LA 73/72

ATTACHED PAGES:

Encl 2	3/4 6-15
Encl 3A	11
Encl 5A	3.6-8
Encl 5B	B3.6-15

Encl 6A 1

03.6.0-1

01-07-A

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 Each containment isolation valve shall be OPERABLE.* #

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: **, ***, ****

With one or more ~~of the~~ penetration flow paths with one isolation valve~~(s)~~ inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and: 11-12-A

~~a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or~~ 11-16-A

b. Isolate each affected penetration flow path within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or 11-12-A

c. Isolate each affected penetration flow path within 4 hours by use of at least one closed manual valve or blind flange or check valve with flow secured; or 11-12-A 01-03-A

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#. Not applicable to Main Steam Safety Valves (MSSVs), Main Steam Isolation Valves (MSIVs), Main Feedwater Isolation Valves (MFIVs), ~~Main Feedwater Regulating Valves (MFRVs) and Associated Bypass Valves,~~ and Atmospheric Dump Valves (ADVs). 11-11-A 03.6.3-10

NOTE 1 * ~~Locked or sealed closed valves~~ Penetration flow paths may be opened on an intermittent basis under administrative control. 11-01-LS13

(new) With one or more penetration flow paths with two containment isolation valves inoperable, isolate the affected penetration flow path within 1 hour by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 11-04-A

(new) With one or more penetration flow paths of the type configured with only one containment isolation valve and a closed system, with one containment isolation valve inoperable, isolate the affected penetration flow path within 72 hours by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 11-05-LS14

SURVEILLANCE REQUIREMENTS

~~4.6.3.1 Each containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.~~ 11-06-TR3 11-09-A

Φ3.6.3-9
Φ3.6.3-8

CHANGE NUMBER	NSHC	DESCRIPTION
11-09	A	Consistent with NUREG-1431 and industry Traveler TSTF-46, Rev. 1, the isolation time surveillance is revised to delete the reference to verifying "each power operated" containment isolation valve and only require verification of each "automatic isolation valve." Containment isolation valves which are power operated but do not receive a containment isolation signal (i.e. can be remotely operated), do not have an isolation time assumed in the accident analysis since they require operator action. Therefore, deleting the reference to power operated isolation valve time testing is a clarification that reduces the potential for misinterpreting the requirements of this SR while maintaining the assumptions of the accident analysis.
11-10	A	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
11-11	A	A Note is added to the main containment isolation specification that the LCO is not applicable to main steam safety valves (MSSVs), main steam isolation valves (MSIVs), MFIVs feedwater isolation valves (~~FIVs~~), [ ] and atmospheric dump valve (ADVs). Φ3.6.3-10 ~~License Amendment (LA) 73/72 (LAR 91-08, 12/26/91) removed the listing of containment isolation valves (Table 3.6-1) and authorized revision of the list under the control of the Administrative section of the TS (e.g., under 10 CFR 50.59). These valves are currently not considered to have a containment isolation function.~~ This note is consistent with current licensing bases. Insert
11-12	A	The phase "flow path" is added for clarification and constancy with NUREG-1431. This specification is based on GDC 55, 56, and 57 which address the proper isolation for each "line" that penetrates containment. Licensees have always been required to assure that proper protection is provided for each line or flow path that passes through containment even if multiple flow paths share the same penetration. In this specification, the term "penetration" has always meant each flow path that penetrates containment. Adding the words "flow path" to the specification clarifies this meaning. Φ3.6.3-18
11-13	LS22	This change revises the DCPP containment ventilation isolation valve leak rate surveillance frequency ~~from 30 months to every 184 days and~~ from 24 hours and at least once every 72 hours during multiple cycling to 92 days after opening a valve. This change is consistent with NUREG-1431 and NRC resolution of Multi-Plant Action No. B-20, "Containment Leakage Due to Seal Deterioration." These valves have a good service record and have consistently met leakage rate requirements. The revised 92 day frequency still reflects conservative margin to compensate for degradation of the resilient seats in these valves.

3.6 CONTAINMENT SYSTEMS

3.6.3 Containment Isolation Valves ~~(Atmospheric, Subatmospheric, Ice Condenser, and Dual)~~ PS

Q3.6.3-10

----------NOTE----------
Not applicable to Main Steam Safety Valves (MSSVs), Main Steam Isolation Valves (MSIVs), Feedwater Isolation Valves (MFIVs), ~~Main Feedwater Regulation Valves (MFRVs) and Associated Bypass Valves,~~ and Atmospheric Dump Valves (ADVs). 3.6-3

LCO 3.6.3 Each containment isolation valve shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

----------NOTES----------
1. Penetration flow path(s) ~~[except for [42] inch purge valve flow paths]~~ except no more than two of three flow paths for containment purge supply and exhaust and containment vacuum/pressure relief paths at one time may be unisolated intermittently under administrative controls. 3.6-17
2. Separate Condition entry is allowed for each penetration flow path.
3. Enter applicable Conditions and Required Actions for systems made inoperable by containment isolation valves.
4. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. ---------NOTE--------- Only applicable to penetration flow paths with two containment isolation valves. ---------- One or more penetration flow paths with one containment isolation valve inoperable except for a containment purge supply and exhaust valve or ~~shield building bypass~~ pressure/vacuum relief valve leakage not within limit.	A.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured. AND	4 hours B-PS (continued)

BASES (Continued)

LCO

Containment isolation valves form a part of the containment boundary. The containment isolation valves' safety function is related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during a DBA. The automatic power operated isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The ~~48~~ inch Containment Purge supply and exhaust ~~and 12 inch Hydrogen Purge~~ valves and the Pressure/Vacuum Relief valves must ~~be maintained sealed closed [or~~ have blocks installed to prevent full opening~~]~~. ~~[~~ These blocked ~~purge~~ valves also actuate on an automatic isolation signal. ~~]~~ The valves covered by this LCO are listed along with their associated stroke times in ~~the FSAR Technical Requirements Manual~~ Plant Procedure AD13.DC1 ~~(Attachment 7.10)~~ (Ref. ~~2~~ 5). DC 36-ED

~~The~~ Normally closed passive containment isolation valves/devices are considered OPERABLE when manual valves are closed, automatic valves are de-activated and secured in their closed position, blind flanges are in place, and closed systems are intact. ~~These passive isolation valves/devices are those listed in Reference X.~~ 5 → remove strike-out
Q3.6.3-42

Containment Purge supply and exhaust valves, ~~Hydrogen Purge,~~ and Containment Pressure/Vacuum Relief valves with resilient seals ~~[and secondary containment bypass valves]~~ must meet additional leakage rate surveillance frequency requirements. The other containment isolation valve leakage rates are addressed by LCO 3.6.1, "Containment," ~~as Type C testing~~.

This LCO provides assurance that the containment isolation valves ~~and the Containment Purge supply and exhaust, Hydrogen Purge, and Containment Pressure/Vacuum Relief purge valves~~ will perform their designed safety function to minimize the loss of reactor coolant inventory and establish the containment boundary during accidents.

The LCO is modified by a Note stating that the Main Steam Safety Valves, Main Steam Isolation Valves, Feedwater Isolation Valves, and Atmospheric Dump Valves are not addressed in this LCO. These penetration flow paths credit the steam generators and piping inside containment as a containment isolation barrier (i.e., closed system). These valves are addressed by LCO 3.7.1 "Main Steam Safety Valves (MSSVs)", LCO 3.7.2 "Main Steam Isolation Valves (MSIVs)", LCO 3.7.3 "Main Feedwater Isolation Valves (MFIVs), ~~Main Feedwater Regulating Valves (MFRVs), and Associated Bypass Valves~~", and LCO 3.7.4 "Atmospheric Dump Valves (ADVs)" which provide the appropriate Required Actions in the event these valves are inoperable. Insert
Q3.6.3-10

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES.

(Continued)

NUREG-1431 Section 3.6

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
3.6-1	This change supports implementation of the 10 CFR 50, Appendix J, Option B, for performance based leakage rate testing Option B by referencing the Containment Leakage Rate Testing Program described in the Administrative Controls section. This change is consistent with the CTS and Traveler TSTF-52.
3.6-2	Consistent with Traveler TSTF-17, Rev. 1, this change would extend the testing frequency of containment air lock interlock mechanisms from 184 days to 24 months and delete the SR note per implementation of Appendix J, Option B. SR 3.6.2.2 would be revised to require testing of the air lock door interlocks at an interval of 24 months. Typically, the interlock is installed after each refueling outage, verified OPERABLE with this surveillance and not disturbed until the next refueling outage. If the need for maintenance arises when the interlock is required, the performance of the interlock surveillance would be required following the maintenance. In addition, when an air lock is opened during times the interlock is required, the operator first verifies that one door is completely shut and the door seals pressurized before attempting to open the other door. Therefore, the interlock is not challenged except during actual testing of the interlock. Consequently, it should be sufficient to ensure proper operation of the interlock by testing the interlock on a 24 month interval.
3.6-3	Consistent with the CTS, a Note has been added to clarify that the valves listed are not addressed in LCO 3.6.3. These valves utilize the steam generators and associated piping as a closed system inside of containment. Insert These valves have separate LCOs that provide the appropriate Required Actions in the event these valves are inoperable. Q3.6.3-10
3.6-4	Consistent with traveler TSTF-30, Rev. 1, this change takes credit for a closed system for isolating a failed containment isolation valve. The change would extend the Completion Time for a closed system flow path with an inoperable isolation valve to 72 hours. General Design Criteria 57 allows the use of a closed system in combination with a containment isolation valve to provide two containment barriers against the release of radioactive material following an accident. Currently, LCO 3.6.3 does not allow the use of a closed system to isolate a failed containment isolation valve even though the closed system is subjected to Type A containment leakage testing, is missile protected, and is seismic Category I piping. A closed system also typically has flow through it during normal operation such that any loss of integrity could be continually observed through a leakage detection system within containment and during routine system walkdowns for closed systems outside containment. As such, the use of a closed system is no different from isolating a failed containment isolation valve by use of a single valve as specified in Required ACTION A.1. Therefore, LCO 3.6.3, Required ACTION C.1 is revised to allow 72 hours to isolate a failed valve associated with a closed system. This 72 hour period provides the necessary time to perform repairs on a failed containment isolation valve when relying on an intact closed system. A Completion Time of 72 hours is considered appropriate given that certain valves may be located inside containment, the reliability of the closed system, and that 72 hours is typically provided for losing one train of redundancy throughout the NUREG-1431. If the closed system and associated containment isolation valve were both inoperable, the plant would be in LCO 3.0.3 since there is no specific Condition specified.

Encl 3A - page 11, insert for DOC 11-11-A:

A Note is added to the containment isolation specification that the LCO is not applicable to main steam safety valves (MSSVs), main steam isolation valves (MSIVs), main feedwater isolation valves (MFIVs), and [atmospheric dump valves (ADVs)]. This is based upon 10CFR50.36.c.2 and 3 and 10CFR50, Appendix J. There are no surveillances associated with LCO 3.6.1.1 or LCO 3.6.3 which are applicable to these valves. [ ] This Note is consistent with current licensing basis.

Encl 5B, page B3.6-15 insert:

The Containment isolation function of these valves are associated with their design and installation under GDC 57 as a second boundary in a closed system (passive) when the containment environment has potential direct access to the outside environment. They have no role in establishing or maintaining containment integrity unless the closed system boundary has been breached.

Encl 6A - page 1, insert JFD 3.6-3:

The current license bases exempts these valves from containment integrity requirements. This is based upon 10CFR50.36.c.2 and 3 and 10CFR50, Appendix J. There are no surveillances associated with LCO 3.6.1.1 or LCO 3.6.3 which are applicable to these valves. [ ]

TABLE 6.2-39

CONTAINMENT PIPING PENETRATIONS AND VALVING[a]

Pentr Nos.	System (Safety Priority) (33)	Figure 6.2-19 Sheet No.	Vlv Ltr	Val ID Number	Valve Type (30)	Oper-ator (31)	Cntmt Locat. (32)	Appli-cable GDC	GDC Confor-mance	PG&E Grp	Control Room Indctn	Normal Position (35)	Power Fail. Position	Trip On (25)	Used After LOCA (36)	Post-LOCA Position (37)	Fluid (23)	Temp (24)	Notes
1, 2, 3, 4	Feedwater (NE/SA)	1(II)	A	FCV-438,439,440,441	Gte	Mtr	O	57	Yes	C	Yes	O	As is	(1)	N	C	W	Hot	1,26
			B	FW-140,147,153,157	Gte	Man	O	57	(7)	D	No	O	As is		Y	O	W	Hot	7,26,8
			-		Cls	-	I	57	Yes	D	-	-	-	-	Y	-	W	Hot	2
5, 8	Main steam (NE/SA)	1(I)	E	FCV-41,44	(3)	Alr	O	57	Yes	D	Yes	O	As is	(4)	N	C	G	Hot	3,4,26
			F	FCV-22,25	Glb	Alr	O	57	Yes	C	Yes	C	Closed	(4)	N	C	G	Hot	4,26
			G	PCV-19,22	Glb	Alr	O	57	(5)	D	Yes	C	Closed	(5)	N	C	G	Hot	5,26
			H	MS Line Safeties	Rlf	Spr	O	57	(6)	D	No	C	Closed	-	N	C	G	Hot	6,26
			-		Cls	-	I	57	Yes	D	-	-	-	-	N	-	G	Hot	2
6, 7	Main steam (NE/SA)	2 (I)	A	FCV-42,43	(3)	Alr	O	57	Yes	D	Yes	O	As is	(4)	N	C	G	Hot	3,4,26
			B	FCV-23,24	Glb	Alr	O	57	Yes	C	Yes	C	Closed	(4)	N	C	G	Hot	4,26
			C	PCV-20,21	Glb	Alr	O	57	(5)	D	Yes	C	Closed	(5)	N	C	G	Hot	5,26
			D	MS Line Safeties	Rlf	Spr	O	57	(6)	D	No	C	Closed	-	N	C	G	Hot	6,26
			E	FCV-37,38	Gte	Mtr	O	57	Yes	D	Yes	O	As is	R-M	Y	O	G	Hot	26
			-		Cls	-	I	57	Yes	D	-	-	-	-	Y	-	G	Hot	2
			H	MS-5444,5445	Glb	Man	O	57	Yes	D	No	C	-	-	N	C	G	Hot	26
9-13	Component cooling water to fan coolers (SA)	3 (V)	H	CCW-169,177,469, 477,185	But	Man	O	57	(7)	D	No	O	As is	(7)	Y	O	W	Cold	7,26,8
			-		Cls	-	I	57	Yes	D	-	-	-	-	Y	-	W	Cold	
14-18	Component cooling water from fan coolers (SA)	3 (VI)	I	CCW-176,184,476, 484,192	But	Man	O	57	(7)	D	No	O	As is	(7)	Y	O	W	Cold	7,26,8
			-		Cls	-	I	57	Yes	D	-	-	-	-	Y	-	W	Cold	
19	Component cooling water to reactor coolant pumps (ES)	4 (I)	A	FCV-356	But	Mtr	O	55	Yes	A	Yes	O	As is	P	N	C	W	Cold	
			B	CCW-585	Chk	-	I	55	Yes	A	No	O	-	-	N	O	W	Cold	
20	Component cooling water from reactor coolant pumps (ES)	4 (III)	F	FCV-363	But	Mtr	O	55	Yes	A	Yes	O	As is	P	N	C	W	Cold	
			E	FCV-749	But	Mtr	I	55	Yes	A	Yes	O	As is	P	N	C	W	Cold	
			H	CCW-581	Chk	-	I	55	Yes	A	No	O	-	-	N	O	W	Cold	
21	Component cooling water from reactor coolant pumps (ES)	4 (II)	C	FCV-750	Glb	Mtr	I	55	Yes	A	Yes	O	As is	P	N	C	W	Hot	
			D	FCV-357	Glb	Mtr	O	55	Yes	A	Yes	O	As is	P	N	C	W	Hot	
			G	CCW-670	Chk	-	I	55	Yes	A	No	O	-	-	N	O	W	Hot	

3.6.3-10

Pentr Nos.	System (Safety Priority) (33)	Figure 6.2-19 Sheet No.	Vlv Ltr	Valve ID Number	Valve Type (30)	Oper-ator (31)	Cntmt Locat. (32)	Appli-cable GDC	GDC Confor-mance	PG&E Grp	Control Room Indctn	Normal Positn (35)	Power Fail. Positn	Trip On (25)	Used After LOCA (36)	Pst-LOCA Positn (37)	Fluid (23)	Temp (24)	Notes
22	Component cooling water to excess Let-down heat exchanger (NE)	4 (IV)	I	CCW-695	Chk	-	O	57	(8)	C	No	O	-	-	N	O	W	Cold	8
			-		Cls		I	57	Yes	-	-	-	-	-	N	-	W	Cold	
23	Component cooling water from excess letdown heat exchanger (NE)	4 (V)	J	FCV-361	But	Air	O	57	Yes	C	Yes	O	Closed	T	N	C	W	Cold	
			-		Cls		I	57	Yes	-	-	-	-	-	N	-	W	Cold	
24	Residual heat removal No. 1 Cold Leg Injection (SA)	5 (I)	A	8818A	Chk	-	I	55	Yes	D	No	O	-	-	Y	O	W	Hot	26
			B	8818B	Chk	-	I	55	Yes	D	No	O	-	-	Y	O	W	Hot	26
			C	8809A	Gte	Mtr	O	55	(9)	D	Yes	O	As Is	R-M	Y	C	W	Hot	7,9,26
			M	8885A	Glb	Air	I	55	Yes	E	Yes	C	Closed	-	N	C	W	Hot	22
			-		Cls	-	O	55	Yes	D	-	-	-	-	Y	-	W	Hot	10
25	Residual heat removal No. 2 Cold Leg Injection (SA)	5 (III)	I	8818C	Chk	-	I	55	Yes	D	No	O	-	-	Y	O	W	Hot	26
			J	8818D	Chk	-	I	55	Yes	D	No	O	-	-	Y	O	W	Hot	26
			K	8885B	Glb	Air	I	55	Yes	E	Yes	C	Closed	-	N	C	W	Hot	22
			L	8809B	Gte	Mtr	O	55	(9)	D	Yes	O	As Is	R-M	Y	C	W	Hot	7,9,26
			-		Cls	-	O	55	Yes	D	-		-	-	Y	-	W	Hot	10
26	Residual heat removal Hot Leg Injection (SA)	5 (II)	D	8716A	Gte	Mtr	O	55	(9)	D	Yes	O	As Is	R-M	Y	C	W	Hot	7,9,26
			E	HCV-670	Bal	Air	O	55	(9)	D	No	O	Open	R-M	N	C	W	Hot	9,26
			F	8741	Gte	Man	O	55	Yes	E	No	C	-	-	N	C	W	Hot	27
			G	8716B	Gte	Mtr	O	55	(9)	D	Yes	O	As Is	R-M	Y	O	W	Hot	7,9,26
			H	8703	Gte	Mtr	I	55	(11)	D	Yes	C	As Is	R-M	Y	O	W	Hot	7,11,26
			-		Cls	-	O	55	Yes	D	-	-	-	-	Y	-	W	Hot	10
27	Reactor coolant system Loop 4 recirculation (SA)	6 (I)	A	8701	Gte	Mtr	I	55	(11)	D	Yes	O	As Is	R-M	N	C	W	Hot	7,
			B	8980	Gte	Mtr	O	55	(11)	D	Yes	O	As Is	R-M	Y	C	W	Hot	7, 27
			C	8700A	Gte	Mtr	O	55	(11)	D	Yes	O	As Is	R-M	Y	C	W	Hot	7, 27
			D	8700B	Gte	Mtr	O	55	(11)	D	Yes	O	As Is	R-M	Y	C	W	Hot	7,11,27
28	Containment sump recircu-lation (SA)	6 (II)	E	8982A	Gte	Mtr	O	56	(12)	D	Yes	C	As Is	(12)	Y	O	W	Hot	12
			-		Cls	-	O	56	Yes	-	-	-	-	-	Y	-	W	Hot	10
29	Containment sump recircu-lation (SA)	6 (III)	F	8982B	Gte	Mtr	O	56	(12)	D	Yes	C	As Is	(12)	Y	O	W	Hot	12
			-		Cls	-	O	56	Yes	D	-	-	-	-	Y	-	W	Hot	10
30	Containment spray system (SA)	7 (I)	A	9011B	Chk	-	I	56	Yes	D	No	O	-	-	Y	O	W	Cold	
			B	9001B	Gte	Mtr	O	56	(11)	D	Yes	C	As Is	(13)	Y	C	W	Cold	11,13
			C	CS-32	Glb	Man	O	56	Yes	D	No	C	-	-	N	C	W	Cold	
			D	9003B	Gte	Mtr	O	56	(11)	D	Yes	C	As Is	(7)	Y	C	W	Cold	7,11

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TABLE 6.2-39

Pentr Nos.	System (Safety Priority) (33)	Figure 6.2-19 Sheet No.	Vlv Ltr	Valve ID Number	Valve Type (30)	Oper-ator (31)	Cntmt Locat. (32)	Appli-cable GDC	GDC Confor-mance	PG&E Grp	Control Room Indctn	Normal Positn (35)	Power Fail. Positn	Trip On (25)	Used After LOCA (36)	Pst-LOCA Positn (37)	Fluid (23)	Temp (24)	Notes
31	Containment spray system (SA)	7 (II)	E	9011A	Chk	-	I	56	Yes	D	No	O	-	-	Y	O	W	Cold	
			F	9003A	Gte	Mtr	O	56	(11)	D	Yes	C	As is	(7)	Y	C	W	Cold	7,11
			G	9001A	Gte	Mtr	O	56	(11)	D	Yes	C	As is	(13)	Y	C	W	Cold	11,13
			H	CS-31	Glb	Man	O	56	Yes	D	No	C	-	-	N	C	W	Cold	
32	Spare																		
33	Safety injection system (SA)	8 (I)	A	8819A,8819B,8819C, 8819D	Chk	-	I	55	Yes	D	No	O	-	-	Y	O	W	Cold	27
			B	8835	Gte	Mtr	O	55	(11)	D	Yes	O	As is	(7)	Y	C	W	Cold	7,11
			G	8823	Glb	Air	I	55	Yes	E	Yes	C	Closed	-	N	C	W	Cold	22
34	Safety injection system (SA)	8 (II)	C	8820	Chk	-	I	55	Yes	D	No	O	-	-	Y	O	W	Cold	27
			D	8801A, 8801B	Gte	Mtr	O	55	(11)	D	Yes	C	As is	R-M	Y	O	W	Cold	11,14
			H	8843	Glb	Air	I	55	Yes	E	Yes	C	Closed	-	N	C	W	Cold	22
			I	8969	Glb	Man	O	55	Yes	E	No	C	-	-	N	C	W	Cold	
35	Regenerative heat exchanger to letdown heat exchanger (NE)	9 (I)	A	8149A	Glb	Air	I	55	Yes	A	Yes	O	Closed	T	N	C	W	Hot	
			B	8149B	Glb	Air	I	55	Yes	A	Yes	O	Closed	T	N	C	W	Hot	
			C	8149C	Glb	Air	I	55	Yes	A	Yes	O	Closed	T	N	C	W	Hot	
			D	8152	Glb	Air	O	55	Yes	A	Yes	O	Closed	T	N	C	W	Hot	
			G	8117	Rlf	Spr	I	55	Yes	A	No	C	Closed	-	N	C	W	Hot	20
36	Normal charging to Regenerative heat exchanger (SA)(34)	9 (II)	E	8378C	Chk	-	I	55	Yes	A	No	O	-	-	N	O	W	Cold	
			F	8107	Gte	Mtr	O	55	Yes	A	Yes	O	As is	S	N	C	W	Cold	
37, 38	Steam generator blowdown (NE)	1 (III)	J	FCV-151,154,157,160	Glb	Air	O	57	Yes	C	Yes	O	Closed	T		C	W	Hot	26
39, 40			I	FCV-760,761,762,763	Glb	Air	I	57	(15)	C	Yes	O	Closed	(4)	N	C	W	Hot	4,26
41, 42, 43 44	Reactor coolant pump seal water supply (ES)	10 (I)	A	8368A,8368B,8368C, 8368D	Chk	-	I	55	Yes	B	No	O	-	-	Y	O	W	Cold	
					Cls	-	O	55	Yes	B	-	-	-	-	Y	-	W	Cold	10
45	Reactor coolant pump seal water return (NE)	10 (II)	B	8112	Gte	Mtr	I	55	Yes	A	Yes	O	As is	T	N	C	W	Cold	
			C	8109	Chk	-	I	55	Yes	A	No	O	-	-	Y	O	W	Cold	
			D	8100	Gte	Mtr	O	55	Yes	A	Yes	O	As is	T	N	C	W	Cold	
46	Refueling canal recirculation (NE)	3 (II)	C	8796	Dia	Man	I	56	Yes	E	No	C	-	-	N	C	W	Cold	
			D	8787	Dia	Man	O	56	Yes	E	No	C	-	-	N	C	W	Cold	
47	Refueling canal return (NE)	3 (IV)	F	8795	Dia	Man	I	56	Yes	E	No	C	-	-	N	C	W	Cold	
			G	8767	Dia	Man	O	56	Yes	E	No	C	-	-	N	C	W	Cold	
48	Spare																		
49	Containment sump discharge	3 (I)	A	FCV-500	Bal	Air	I	56	Yes	A	Yes	O	Closed	T	N	C	W	Cold	
			B	FCV-501	Bal	Air	O	56	Yes	A	Yes	O	Closed	T	N	C	W	Cold	

3.6.3-10

Pentr Nos.	System (Safety Priority) (33)	Figure 6.2-19 Sheet No.	Vlv Ltr	Valve ID Number	Valve Type (30)	Oper-ator (31)	Cntmt Locat. (32)	Appli-cable GDC	GDC Confor-mance	PG&E Grp	Control Room Indctn	Normal Positn (35)	Power Fail. Positn	Trip On (25)	Used After LOCA (36)	Pst-LOCA Positn (37)	Fluid (23)	Temp (24)	Notes
	(NE)																		
50	Reactor coolant drain tank discharge (NE)	12 (IV)	G H	FCV-254 FCV-253	Bal Bal	Air Air	O I	55 55	Yes Yes	A A	Yes Yes	O O	Closed Closed	 T	N N	C C	W W	Hot Hot	
51	Reactor coolant drain tank vent (NE)	12 (II)	C D	FCV-256 FCV-255	Bal Bal	Air Air	O I	55 55	Yes Yes	A A	Yes Yes	O O	Closed Closed	T T	N N	C C	G G	Cold Cold	17
51	Reactor coolant drain tank to gas analyzer (NE)	12 (III)	E F	FCV-257 FCV-258	Bal Bal	Air Air	O I	55 55	Yes Yes	A A	Yes Yes	O O	Closed Closed	T T	N N	C C	W W	Cold Cold	17
51	Safety injec-tion system test line (NE)	13 (I)	A B C D	8871 8883 8961 SI-161	Glb Glb Glb Glb	Air Air Air Man	I O O O	55 55 55 55	Yes Yes Yes Yes	A A A E	Yes Yes Yes No	C C C C	Closed Closed Closed -	T T T -	N N N N	C C C C	W W W W	Cold Cold Cold Cold	17
51	Nitrogen supply header to accumulators (NE)	8 (III)	E F	8880 8916	Glb Chk	Air -	O I	55 55	Yes Yes	A A	Yes No	O O	Closed -	T -	N N	C O	G G	Cold Cold	17
52	Pressurizer relief tank nitrogen supply (NE)	14 (II)	C D	8047 8045	Chk D'a	- Air	I O	55 55	Yes Yes	A A	No Yes	O O	- Closed	 T	N N	O C	G G	Cold Cold	17
52	Pressurizer relief tank makeup (NE)	14 (III)	E F	8029 8046	Bal Chk	Air -	O I	55 55	Yes Yes	A A	Yes No	O O	Closed -	T -	N N	C O	W W	Cold Cold	17
52	Reactor coolant drain tank nitrogen supply (NE)	12 (I)	A B	FCV-260 LWS-60	Bal Chk	Air -	O I	55 55	Yes Yes	A A	Yes No	O O	Closed -	T -	N N	C O	G G	Cold Cold	17
52	Steam generator nitrogen supply (NE)	2 (II)	F G	MS-902 MS-5200	Gte Chk	Man -	O I	56 56	Yes Yes	E E	No No	C O	- -	- -	N N	C O	G G	Cold Cold	17,26
52	Containment H_2 monitor supply (NE)	24 (I)	A B	FCV-235 FCV-236	Glb Glb	Sol Sol	I O	56 56	(28) (28)	E E	Yes Yes	C C	Closed Closed	(28) (28)	Y Y	O O	G G	Cold Cold	28,17, 29 28
52	Containment H monitor return (NE)	24 (II)	C D	FCV-237 VAC-252	Glb Chk	Sol -	O I	56 56	(28) Yes	E E	Yes No	C O	Closed -	(28) -	Y Y	O O	G G	Cold Cold	28,17, 29
52	Containment (2 pressure lines) (SA)	15 (I)	A B	Sealed Bellows Sealed Instrument	Sbl Sin	- -	I O	56 56	Yes Yes	E E	- -	- -	- -	- -	Y Y	- -		Cold Cold	16,17 16
53	Steam generator	1 (IV)	K	FCV 244,246	Glb	Air	O	57	Yes	C	Yes	O	Closed	T	N	C	W	Hot	26

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TABLE 6.2-39

Pentr Nos.	System (Safety Priority) (33)	Figure 6.2-19 Sheet No.	Vlv Ltr	Valve ID Number	Valve Type (30)	Oper-ator (31)	Cntmt Locat. (32)	Appli-cable GDC	GDC Confor-mance	PG&E Grp	Control Room Indctn	Normal Positn (35)	Power Fail. Positn	Trip On (25)	Used After LOCA (36)	Pst-LOCA Positn (37)	Fluid (23)	Temp (24)	Notes
	(4 blowdown sample line) (NE)		.	248,250	Cls	-	I	57	Yes	C	-		-	-	N		W	Hot	2
54	Instrument air header (NE)	16 (I)	A	AIR-587	Chk	-	I	56	Yes	A	No	O	-	-	N	O	G	Cold	
			B	FCV-584	Bal	Air	O	56	Yes	A	Yes	O	Closed	T	N	C	G	Cold	
			E	AIR-585	Dia	Man	O	56	Yes	E	No	C	-	-	N	C	G	Cold	
55	Spare																		
56	Service air header (NE)	16 (II)	C	AIR-114	Chk	-	I	56	Yes	E	No	O	-	-	N	O	G	Cold	
			D	AIR-200	Bal	Man	O	56	Yes	E	No	C	-	-	N	C	G	Cold	
57	Containment external H_2 recombiners (SA)	24 (III)	E	FCV-669	Gte	Mtr	O	56	(28)	E	Yes	C	As is	(28)	Y(38)	C	G	Cold	28
			F	FCV-659	Gte	Mtr	I	56	(28)	E	Yes	C	As is	(28)	Y(38)	C	G	Cold	28
58	Mini-Equipment Hatch (NE)			Not a piping penetration															
59	Pressurizer liquid sample (NE)	17(II)	C	9355A	Glb	Air	I	55	Yes	A	Yes	O	Closed	T	Y	C	W	Hot	
			D	9355B	Glb	Air	O	55	Yes	A	Yes	O	Closed	T	Y	C	W	Hot	
59	Hot leg sample (NE)	17 (III)	E	9356A	Glb	Air	I	55	Yes	A	Yes	O	Closed	T	Y	C	W	Hot	
			F	9356B	Glb	Air	O	55	Yes	A	Yes	O	Closed	T	Y	C	W	Hot	
59	Accumulator sample (NE)	17 (IV)	G	9357A	Glb	Air	I	55	Yes	A	Yes	O	Closed	T	N	C	W	Cold	
			H	9357B	Glb	Air	O	55	Yes	A	Yes	O	Closed	T	N	C	W	Cold	
59	Containment (2) pressure lines) (SA)	15 (I)	A	Sealed Instrument	Slb	-	I	56	Yes	E	-	-	-	-	Y	-	NA	Cold	16,17, 29
			B	Sealed Bellows	Sln	-	O	56	Yes	E	-	-	-	-	Y	-		Cold	16
59	Reactor vessel (3 level instrumentation lines) (SA)	25 (I)	A	Sealed Bellows	Slb	-	I	55	Yes	E	-	-	-	-	Y	-		Cold	16,17, 29
			B	Hydraulic Isolators	Hys	-	O	55	Yes	E	-	-	-	-	Y	-		Cold	16
60	Mini-Equipment Hatch (NE)			Not a piping penetration															
61	Containment purge supply (NE)	18 (II)	D	FCV-660	But	Air	I	56	Yes	A	Yes	O	Closed	(18)	N	C	G	Cold	18
			E	FCV-661	But	Air	O	56	Yes	A	Yes	O	Closed	(18)	N	C	G	Cold	18
62	Containment purge exhaust (NE)	18 (III)	F	RCV-11	But	Air	I	56	Yes	A	Yes	O	Closed	(18)	N	C	G	Cold	18
			G	RCV-12	But	Air	O	56	Yes	A	Yes	O	Closed	(18)	N	C	G	Cold	18
63	Containment pressure and vacuum relief (NE)	18 (I)	A	FCV-662	But	Air	I	56	Yes	A	Yes	O	Closed	(18)	N	C	G	Cold	18
			B	FCV-663	But	Air	O	56	Yes	A	Yes	O	Closed	(18)	N	C	G	Cold	18
			C	FCV-664	But	Air	O	56	Yes	A	Yes	O	Closed	(18)	N	C	G	Cold	18
			J	Spectacle Flange	Spf	-	O	56	Yes	A	-	N/A	-	-	N/A	N/A	G	Cold	

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Pentr Nos.	System (Safety Priority) (33)	Figure 6.2-19 Sheet No.	Vlv Ltr	Valve ID Number	Valve Type (30)	Oper-ator (31)	Cntmt Locat. (32)	Appli-cable GDC	GDC Confor-mance	PG&E Grp	Control Room Indctn	Normal Positn (35)	Power Fail. Positn	Trip On (25)	Used After LOCA (36)	Pst-LOCA Positn (37)	Fluid (23)	Temp (24)	Notes
64	Fuel transfer tube (NE)	3 (III)	E	Blind Flange	Blf	-	I	-	(19)	A	-	N/A	-	-	N/A	N/A	-	-	19
65	Personnel hatch (NE)			Not a piping penetration															
66	Emergency personnel hatch (NE)			Not a piping penetration															
67	Equipment hatch (NE)			Not a piping penetration															
68	Containment air sample (NE)	19 (II)	C	FCV-679	Bal	Air	O	56	Yes	A	Yes	O	Closed	(18)	N	C	G	Cold	18
			D	FCV-678	Bal	Air	I	56	Yes	A	Yes	O	Closed	(18)	N	C	G	Cold	18
69	Containment air sample (NE)	19 (I)	A	FCV-681	Bal	Air	O	56	Yes	A	Yes	O	Closed	(18)	Y	C	G	Cold	18
			B	VAC-21	Chk	-	I	56	Yes	A	No	O	-	-	Y	O	G	Cold	
70	Auxiliary steam supply (NE)	20 (I)	A	AXS-26	Gte	Man	O	56	Yes	E	No	C	-	-	N	C	G	Hot	
			B	AXS-208	Chk	-	I	56	Yes	E	No	O	-	-	N	O	G	Hot	
71	Relief valve (NE) header	14 (IV)	G	8028	Chk	-	I	55	Yes	A	No	O	-	-	N	O	G	Hot	
			H	Various Relief Vlvs	Rlf	-	O	55	Yes	A	No	C	Closed	-	N	C	G	Hot	20
			I	RCS-512	Glb	Man	O	55	Yes	E	No	C	-	-	N	C	G	Hot	
72, 73 74	Spare			Spare Spare															
75	Safety injec-tion system Pump 2 discharge (SA)	21 (I)	A	8802B	Gte	Mtr	O	55	(11)	D	Yes	C	As is	(7)	Y	O	W	Cold	7,11
			B	8824	Glb	Air	I	55	Yes	E	Yes	C	Closed	-	N	C	W	Cold	22
			C	8905C	Check	-	I	55	Yes	D	No	O	-	-	Y	O	W	Cold	27
			D	8905D	Check	-	I	55	Yes	D	No	O	-	-	Y	O	W	Cold	27
76	Spare		Unit 2 Only - Capped 1" Pipe																
76	Pressurizer relief tank gas analyzer (NE)	14 (I)	A	8034B	Glb	Air	O	55	Yes	A	Yes	O	Closed	T	N	C	G	Cold	17
			B	8034A	Glb	Air	I	55	Yes	A	Yes	O	Closed	T	N	C	G	Cold	
76	Deadweight tester (NE)	22 (I)	A	Sealed Bellows	Sbl	-	I	55	Yes	E	-	-	-	-	-	-	W	Cold	16,17
			B	8085B	Glb	Man	O	55	Yes	E	-	C	-	-	N	C	W	Cold	
76	Containment pressure (SA)	15 (I)	A	Sealed Bellows	Sbl	-	I	56	Yes	E	-	-	-	-	Y	-	NA	Cold	16,17
			B	Sealed Instrument	Sin	-	O	56	Yes	E	-	-	-	-	Y	-	NA	Cold	16
76	Pressurizer steam sample (NE)	17 (I)	A	9354A	Glb	Air	I	55	Yes	A	Yes	O	Closed	T	Y	C	W	Hot	
			B	9354B	Glb	Air	O	55	Yes	A	Yes	O	Closed	T	Y	C	W	Hot	
76	Spare instrument test line	11 (III)	Spare																

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TABLE 6.2-39

Pentr Nos.	System (Safety Priority) (33)	Figure 6.2-19 Sheet No.	Vlv Ltr	Valve ID Number	Valve Type (30)	Oper-ator (31)	Cntmt Locat. (32)	Appli-cable GDC	GDC Confor-mance	PG&E Grp	Control Room Indctn	Normal Positn (35)	Power Fail. Positn	Trip On (25)	Used After LOCA (36)	Pst-LOCA Positn (37)	Fluid (23)	Temp (24)	Notes
77	Safety injec-tion system Pump 1 discharge (SA)	21 (II)	E	8802A	Gte	Mtr	O	55	(11)	D	Yes	C	As is	(7)	Y	O	W	Cold	7,11
			F	8905A	Chk	-	I	55	Yes	D	No	O	-	-	Y	O	W	Cold	27
			G	8905	Chk	-	I	55	Yes	D	No	O	-	-	Y	O	W	Cold	27
			B																
78	Containment pressure (SA)	15 (I)	A	Sealed Bellows	Sbl	-	I	56	Yes	E	-	-	-	-	-	-	NA	Cold	16,17
			B	Sealed Instrument	Sin	-	O	56	Yes	E	-	-	-	-	-	-	NA	Cold	16
78	Containment H_2 monitor supply (SA)	24 (I)	A	FCV-238	Glb	Sol	I	56	(28)	E	Yes	C	Closed	(28)	Y	O	G	Cold	17,28, 29
			B	FCV-239	Glb	Sol	O	56	(28)	E	Yes	C	Closed	(28)	Y	O	G	Cold	
78	Containment H_2 monitor return (SA)	24 (II)	C	FCV-240	Glb	Sol	O	56	(28)	E	Yes	C	Closed	(28)	Y	O	G	Cold	17,28, 29
			D	VAC-253	Chk	-	I	56	Yes	E	No	O	-	-	Y	O	G	Cold	
78	Spare	-		5 Capped 1" pipes - Unit 2, 4 Capped 1" Pipes - Unit 1															
78	Spare instrument test line	11 (III)		Unit 1 Only															
79	Fire water (NE)	23 (I)	A	FCV-633	Glb	Air	O	56	Yes	A	Yes	O	Closed	T	N	C	W	Cold	
			B	FP-1-180, FP-2-867	Chk	-	I	56	Yes	A	No	O	-	-	N	O	W	Cold	
80	Spare instrument (2 lines) test line	11 (II)																	
80	Spare instrument test line	11 (III)																	
80	Reactor vessel (3 lines) level instrumentation (SA)	25 (I)	A	Sealed Bellows	Sbl	-	I	55	Yes	E	-	-	-	-	Y	-	NA	Cold	16, 17, 29
			B	Hydraulic Isolator	Hys	-	O	55	Yes	E	-	-	-	-	Y	-	NA	Cold	16
80	Containment pressure (SA)	15 (I)	A	Sealed Bellows	Sbl	-	I	56	Yes	E	-	-	-	-	-	-	NA	Cold	16,17, 29
			B	Sealed Instrument	Sin	-	O	56	Yes	E	-	-	-	-	-	-	NA	Cold	16
81	Containment external H_2 recombiners (SA)	24 (III)	E	FCV-668	Gte	Mtr	O	56	(28)	E	Yes	C	As is	(28)	Y(38)	C	G	Cold	28
			F	FCV-658	Gte	Mtr	I	56	(28)	E	Yes	C	As is	(28)	Y(38)	C	G	Cold	28
82	Post-LOCA sampling system containment air supply (NE)	25 (II)	C	FCV-698	Glb	Sol	I	56	(28)	A	Yes	C	Closed	(28)	Y	C	G	Cold	17,28, 29
			D	FCV-699	Glb	Sol	O	56	(28)	A	Yes	C	Closed	(28)	Y	C	G	Cold	17,28, 29
82	Post-LOCA sampling system containment air return (NE)	25 (III)	E	FCV-700	Glb	Sol	O	56	(28)	A	Yes	C	Closed	(28)	Y	C	G	Cold	17,28, 29
			F	VAC-116	Chk	-	I	56	Yes	A	No	O	-	-	Y	O	G	Cold	17,29

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Pentr Nos.	System (Safety Priority) (33)	Figure 6.2-19 Sheet No.	Vlv Ltr	Valve ID Number	Valve Type (30)	Oper-ator (31)	Cntmt Locat. (32)	Appli-cable GDC	GDC Confor-mance	PG&E Grp	Control Room Indctn	Normal Positn (35)	Power Fail. Positn	Trip On (25)	Used After LOCA (36)	Pst-LOCA Positn (37)	Fluid (23)	Temp (24)	Notes
82	Post-LOCA sampling system reactor cavity sump (NE)	25 (IV)	G	FCV-697	Glb	Sol	O	56	(28)	A	Yes	C	Closed	(28)	Y	C	G	Cold	17,28, 29
			H	FCV-696	Glb	Sol	I	56	(28)	A	Yes	C	Closed	(28)	Y	C	G	Cold	
82	Chilled water supply (NE)	7 (III)	I	FCV-654	Bal	Air	O	57	Yes	A	Yes	C	Closed	T	N	C	W	Cold	
			J	FCV-655	Bal	Air	I	57	Yes	A	Yes	C	Closed	T	N	C	W	Cold	17
82	Spare instrument test line	11 (III)																	
83	Chilled water return (NE)	7 (IV)	K	FCV-656	Bal	Air	O	57	Yes	A	Yes	C	Closed	T	N	C	W	Cold	17
			L	FCV-657	Bal	Air	I	57	Yes	A	Yes	C	Closed	T	N	C	W	Cold	17
83	Hydrogen purge supply (NE)	11 (I)	A	VAC-200,201	Chk	-	I	56	Yes	E	No	O	-	-	Y(38)	O	G	Cold	
			B	VAC-1,2	G'e	Man	O	56	Yes	E	No	C	-	-	Y(38)	C	G	Cold	
84	Spare																		

a) Arabic numbers in parentheses indicate notes at the end of the table.
K-6.2 (3)]

3.6.3-10

TABLE 6.2-39

Notes:

1. Trip on feedwater isolation. (See Table 6.2-40, Item 4.)

2. Steam generator secondary side is missile-protected closed system.

3. Reverse check (main steam isolation).

4. Trip on steam line isolation. (See Table 6.2-40, Item 3.)

5. Safety-related function. Valve trip is related to systems safety function.

6. PG&E considers the five relief valves to be isolation valves.

7. Safety-related function demands that this valve not isolate.

8. Valve does not meet 1971 GDC but does meet the 1968 GDC which was applicable at time of construction commitment.

9. This valve is not considered as the automatic isolation barrier. The barrier is provided by the closed system. The valve does have provision for remote manual isolation should the situation require it.

10. PG&E considers the closed system outside containment as an automatic isolation barrier.

11. Provision for remote manual isolation exists should the situation require it. Safety-related function demands that this valve not isolate. It conforms with the intent of the GDC as it affects maintenance of the containment boundary.

12. The protective chamber is considered outside containment. The motor-operated valves are the isolation valves outside containment.

13. Valve opens on containment spray signal.

14. Valve opens on SIS signal.

15. This valve is redundant in that for a closed system inside containment, no inside isolation valves are required. It is not tested.

16. Containment isolation effected by completely sealed instrument system. This penetration is not leak tested.

17. Multiple penetration number usage results from several small pipes routed through single penetrations.

18. Containment vent isolation trip. (See Table 6.2-40.)

TABLE 6.2-39

Notes (Continued)

19. The fuel transfer tube is not considered to be a piping penetration, but rather a Type B test penetration. The quick-opening hatch is double gasketed with a test connection allowing pressurization between the gaskets for Type B testing. The portion of the transfer tube inside the containment is considered to be part of the containment liner; the portion of the transfer tube outside the containment is not considered to be part of the containment boundary.

20. The relief valves are considered as normally closed containment isolation valves.

21. Deleted.

22. Administratively controlled valve with main control board indication which is treated in the same manner as a sealed closed valve.

23. W - Water; G - Gas

24. Hot - over 200°F; Cold - 200°F or less

25. R-M - Remote Manual; S = Safety Injection; T = Containment Isolation Signal, Phase A; P = Containment Isolation Signal, Phase B.

26. Testability not required by Appendix J to 10 CFR 50.

27. Air testing of this valve is not practical.

28. This device is used for postaccident monitoring or control and must not be isolated by a containment isolation signal.

29. This penetration has multiple tubes running though the guard pipe (see Note 17).

30. The following abbreviations are used:

Gte = Gate	Cls = Closed system	Sbl = Sealed bellows	Spf = Spectacle flange
Glb = Globe	Chk = Check	Blf = Blind flange	
Rlf = Relief	Dia = Diaphragm	Sin = Sealed instruments	
But = Butterfly	Bal = Ball	Hys = Hydraulic isolators	

31. The following abbreviations are used:

Man = Manual	Mtr = Motor
Air = Air	E/H = Electrohydraulic
Spr = Spring	Sol = Solenoid

32. "I" is used for inside and "O" for outside.

TABLE 6.2-39

Notes (Continued)

33. Safety-related priority designation for each penetration per Section 6.2.4.2.1 is as follows:
ES = Essential SA = Safety
NE = Nonessential

34. Penetration 36 is not used by a safety system for accident mitigation. However, flow through this Penetration may be required to achieve safe shutdown following a Hosgri earthquake or an Appendix R fire.

35. "Normal Position" column:
    (A) C = Closed, O = Open
    (B) For check valves, position is always stated as open.
    (C) "Normal" configuration applies to the following plant conditions:
        (a) Modes 1-4, applicable T.S. 3/4.6.1 and 3/4.6.3.
        (b) Mode 6, applicable T.S. 3/4.9.4.
    (D) If valve is normally open or periodically opened for fulfillment of its function during the "Normal" plant configurations, then an "Open" designator is used.
    (E) If valve is normally closed and opened only in support of testing, under administrative control per T.S. 3.6.3, or for stroke testing of the valve itself, then a "Closed" designator is used.
    (F) Relief valves are assigned a "Closed" designator.

36. "Used After LOCA" column:
    (A) N = NO, Y = Yes
    (B) For check valves, if valve passes flow at any point following the accident, then a "YES" designator is used.
    (C) For valves that change position on a safeguards signal, this change is not considered a use, that is, the time the safeguards signal is received is not considered after the accident.
    (D) Use is principally an indicator of a valve passing flow at any point after the accident.

37. "Post-LOCA Position" column:
    (A) C = Closed, O = Open
    (B) The column pertains to a post accident condition, long term core cooling.
    (C) The assumed accident is a primary system LOCA with Containment isolation Phase A and B signals generated, system depressurization below 150 PSIG, corresponding to a RHR pump injection flow of greater than 200 GPM. The accident is assumed to progress through injection, cold leg recirculation, and to hot leg recirculation for the long term.
    (D) The hot leg injection flowpath is injection to RHR hot legs 1 & 2, SI pump hot legs 1,2,3, & 4, and Charging cold legs 1,2,3, & 4; the condition established by EOP E-1.4, (no RNOs entered).
    (E) Containment temperature has been reduced to near ambient conditions.
    (F) Containment pressure has been reduced to near atmospheric conditions.
    (G) Primary system/containment recirculation sump temperature has been reduced to below 200F.
    (H) Although used periodically, PASS valves are considered to be normally closed.

38. Valve may be used following a LOCA only in the event of a failure of both internal hydrogen recombiners.

solution by the spray additive system to enhance the iodine scrubbing function of the system. The spray additive system consists of the spray additive tank, eductors, valves and connecting piping.

A sufficient quantity of NaOH will be injected to raise the equilibrium pH in the containment sump to a minimum value of 8.5. We have evaluated the containment spray and spray additive systems and found them effective for removal of elemental iodine, and iodine absorbed on airborne particulate matter. The first order removal coefficients for elemental and particulate iodine are 10 and 0.45 (hrs^{-1}), respectively, in an estimated effective volume of 2.16×10^6 ft^3. The minimum sump pH of 8.5 is considered adequate to achieve and maintain a decontamination factor (DF) of 100 for the elemental iodine.

We have reviewed the containment air purification and cleanup systems for conformance with AEC General Design Criteria Nos. 41, 42, 43, and 46, and have found them to be acceptable.

6.2.4 Containment Isolation Systems

The containment isolation systems are designed to isolate the containment atmosphere from the outside environment under accident conditions. Double barrier protection, in the form of closed systems and isolation valves, is provided so that no single valve or piping failure results in loss of containment integrity. Reactor building penetration piping up to and including the external isolation valve is designed to Seismic Category I requirements, and is protected against missiles that could be generated under accident conditions.

Reactor building isolation will occur automatically upon receipt of a containment isolation signal. All fluid penetrations not required for operation of the engineered safety features equipment will be isolated. Remotely operated isolation valves will have position indication in the control room.

We have reviewed the containment isolation systems for conformance with AEC General Design Criteria Nos. 55, 56 and 57, and have found them to be acceptable.

6.2.5 Combustible Gas Control Systems

Following a LOCA, hydrogen may accumulate inside the containment. The major sources of hydrogen generation include: (1) a chemical reaction between the zirconium fuel rod cladding and water; (2) corrosion of materials of construction; and (3) radiolysis of aqueous solutions in the reactor core and the containment sump. The applicant's analysis of post-LOCA hydrogen generation, which is consistent with the guidelines of Regulatory Guide 1.7, "Control of Combustible Gas Concentrations in Containment Following a Loss-Of-Coolant Accident," indicates that the hydrogen concentration in the containment would not reach the lower flammability limit of 4 volume percent (v/o) until about 40 days after the postulated LOCA. We have performed a similar analysis of hydrogen generation in the containment following a LOCA and our results are in agreement with the applicant's.

The containment fan cooler system will provide mixing of the containment atmosphere following a LOCA so as to prevent possible problems

associated with hydrogen stratification. The containment hydrogen purge system, consisting of two redundant purge supply routes, is provided to limit the hydrogen concentrations to below the guideline values given in Regulatory Guide 1.7. The system incorporates several design features that are intended to assure the capability of the system to be operable in the unlikely event of an accident. These features include Seismic Category I design, and redundance to the extent that no single component failure disables the system. Redundant monitoring systems are provided to allow periodic sampling and analysis of the hydrogen concentration in the containment.

Based on our review of the systems provided for combustible gas control following a postulated LOCA, we conclude that these systems will meet the recommendations of Regulatory Guide 1.7, are in conformance with AEC General Design Criteria Nos. 41, 42 and 43, and are, therefore, acceptable.

6.2.6 Containment Leakage Testing Program

The proposed containment design includes provisions and features to permit leakage testing in accordance with the requirements of Appendix J of 10 CFR Part 50. The design of containment penetrations and isolation valves permits individual periodic leakage rate testing at the pressure specified in Appendix J. Included are those penetrations that have resilient seals and expansion bellows, i.e., airlocks, emergency hatches, refueling tube blind flanges, hot process line penetrations, and electrical penetrations.

The proposed reactor containment leakage testing program complies with the requirements of Appendix J of 10 CFR Part 50. Such compliance provides adequate assurance that containment leaktight integrity can be verified periodically throughout service lifetime on a timely basis to maintain such leakages within the limits of the technical specifications.

Maintaining containment leakage rates within such limits provides reasonable assurance that, in the event of any radioactivity releases within the containment, the loss of the containment atmosphere through leak paths will not be in excess of acceptable limits specified for the site. Compliance with the requirements of Appendix J constitutes an acceptable basis for satisfying the requirements of AEC General Design Criteria Nos. 52, 53, and 54.

6.3 Emergency Core Cooling System (ECCS)

6.3.1 Design Bases

The Diablo Canyon ECCS has been designed to provide emergency core cooling during those postulated accident conditions where it is assumed that mechanical failures occur in the reactor coolant piping resulting in loss of coolant from the reactor vessel greater than the available coolant makeup capacity using normal operating equipment. The ECCS is also designed to provide cooling in the event of a main steam line break.

The design bases are to prevent fuel cladding damage that would interfere with adequate emergency core cooling and to mitigate the amount of clad-water reaction for any size break up to and including a double ended rupture of the largest primary coolant line. These requirements

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TABLE 3.6-1
CONTAINMENT ISOLATION VALVES

VALVE NO.	FUNCTION	ISOLATION TIME (Seconds)
1. Phase "A" Isolation Valves		
FCV-151#	Steam Generator No. 1 Blowdown OC	≤ 10
FCV-154#	Steam Generator No. 2 Blowdown OC	≤ 10
FCV-157#	Steam Generator No. 3 Blowdown OC	≤ 10
FCV-160#	Steam Generator No. 4 Blowdown OC	≤ 10
FCV-244#	Steam Generator No. 4 Sample OC	≤ 10
FCV-246#	Steam Generator No. 3 Sample OC	≤ 10
FCV-248#	Steam Generator No. 2 Sample OC	≤ 10
FCV-250#	Steam Generator No. 1 Sample OC	≤ 10
FCV-253	Reactor Coolant Dr. Tk. PP Disch. Isol. IC	≤ 10
FCV-254	Reactor Coolant Dr. Tk. PP Disch. OC	≤ 10
FCV-255	Reactor Coolant Dr. Tk. Vent. Isol. IC	≤ 10
FCV-256	Reactor Coolant Dr. Tk. Vent. Isol. OC	≤ 10
FCV-257	Reactor Coolant Dr. Tk. Sample to GA OC	≤ 10
FCV-258	Reactor Coolant Dr. Tk. Sample to GA IC	≤ 10
FCV-260	Reactor Coolant Dr. Tk. N_2 Supply OC	≤ 10
FCV-361	CCW Return from Excess Letdown HX OC	≤ 10
FCV-500	Containment Sump Discharge Isolation IC	≤ 10
FCV-501	Containment Sump Discharge Isolation OC	≤ 10
FCV-584	Containment Instrument Air Supply OC	≤ 10
FCV-633	Containment Fire Water Isolation OC	≤ 10
FCV-654	Incore Cooler Chilled H_2O Supply OC	≤ 10
FCV-655	Incore Cooler Chilled H_2O Supply IC	≤ 10

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TABLE 3.6-1 (Continued)

VALVE NO.	FUNCTION	ISOLATION TIME (Seconds)
1. Phase "A" Isolation Valves (Continued)		
FCV-656	Incore Cooler Chilled H_2O Return OC	≤ 10
FCV-657	Incore Cooler Chilled H_2O Return IC	≤ 10
8029	Primary H_2O Supply to Pressurizer Relief Tk. OC	≤ 10
8034A	Pressurizer Relief Tk. to GA IC	≤ 10
8034B	Pressurizer Relief Tk. to GA OC	≤ 10
8045	Pressurizer Relief Tk. N_2 Supply OC	≤ 10
8149A	Letdown Orifice RO-27 Outlet IC	≤ 10
8149B	Letdown Orifice RO-28 Outlet IC	≤ 10
8149C	Letdown Orifice RO-29 Outlet IC	≤ 10
8152	Letdown Line Isolation OC	≤ 10
8871	ECCS Check Valve Test Line IC	≤ 10
8880	Accumulator N_2 Fill OC	≤ 10
8883	ECCS Check Valve Test Line OC	≤ 10
8961	ECCS Check Valve Test Line OC	≤ 10
9354A	Pressurizer Steam Space Sample IC	≤ 10
9354B	Pressurizer Steam Space Sample OC	≤ 10
9355A	Pressurizer Liquid Space Sample IC	≤ 10
9355B	Pressurizer Liquid Space Sample OC	≤ 10
9356A	RCS Hot Leg Sample IC	≤ 10
9356B	RCS Hot Leg Sample OC	≤ 10
9357A	Accumulator Sample IC	≤ 10

TABLE 3.6-1 (Continued)

VALVE NO.	FUNCTION	ISOLATION TIME (Seconds)
1. Phase "A" Isolation Valves (Continued)		
9357B	Accumulator Sample OC	≤ 10
8100	RCP Seal Water Return OC	≤ 10
8112	RCP Seal Water Return IC	≤ 10
2. Phase "B" Isolation Valves		
FCV-356	CCW Supply to RCP's and Support Coolers OC	N.A.
FCV-357	RCP Thermal Barrier CCW Return OC	N.A.
FCV-363	RCP Oil Cooler/Support Cooler CCW Return OC	N.A.
FCV-749	RCP Oil Cooler/Support Cooler CCW Return IC	N.A.
FCV-750	RCP Thermal Barrier CCW Return IC	N.A.
3. Containment Ventilation Isolation Valves		
FCV-660##	Containment Purge Supply IC	≤ 2
FCV-661##	Containment Purge Supply OC	≤ 2
FCV-662	Containment Vacuum/Pressure Relief IC	≤ 5
FCV-663	Containment Pressure Relief OC	≤ 5
FCV-664	Containment Vacuum Relief OC	≤ 5
FCV-678	Containment Air Sample Supply IC	≤ 10
FCV-679	Containment Air Sample Supply OC	≤ 10
FCV-681	Containment Air Sample Return OC	≤ 10
RCV-11##	Containment Purge Exhaust IC	≤ 2
RCV-12##	Containment Purge Exhaust OC	≤ 2

TABLE 3.6-1 (Continued)

VALVE NO.	FUNCTION	ISOLATION TIME (Seconds)
4. Manual Valves		
AIR-I-585*	Instrument Air Supply to Containment (FCV-584 Bypass) OC	N.A.
AIR-S-200*	Service Air Supply to Containment OC	N.A.
AXS-26*	Aux. Steam Supply to Containment OC	N.A.
CS-31	Containment Spray to Misc. Equipment Drain Tank OC	N.A.
CS-32	Containment Spray to Misc. Equipment Drain Tank OC	N.A.
FW-140#	Auxiliary Feedwater to Stm. Gen. No. 1 OC	N.A.
FW-147#	Auxiliary Feedwater to Stm. Gen. No. 2 OC	N.A.
FW-153#	Auxiliary Feedwater to Stm. Gen. No. 3 OC	N.A.
FW-157#	Auxiliary Feedwater to Stm. Gen. No. 4 OC	N.A.
MS-902#	Nitrogen to Steam Generators OC	N.A.
RCS-512*	Miscellaneous Equipment Drain Tank Isolation Valve OC	N.A.
SI-161*	Isolating Valve FI-927 OC	N.A.
VAC-1*	Containment Hydrogen Purge Supply Fan No. 1 and External H_2 Recombiner to Containment OC	N.A.
VAC-2*	Containment Hydrogen Purge Supply Fan No. 2 and External H_2 Recombiner to Containment OC	N.A.
8767	Refueling Cavity to Refueling Water Purification Pump OC	N.A.
8787	Refueling Water Purification Pump to Refueling Cavity OC	N.A.

TABLE 3.6-1 (Continued)

VALVE NO.	FUNCTION	ISOLATION TIME (Seconds)
4. Manual Valves (Continued)		
8795	Refueling Cavity to Refueling Water Purification Pump IC	N.A.
8796	Refueling Water Purification Pump to Refueling Cavity IC	N.A.
8969#	Charging Pump to S.I. Test Line OC	N.A.
PEN-65A*#	Main Airlock Equalizing Valve to Atmosphere	N.A.
PEN-65B*#	Main Airlock Equalizing Valve to Containment	N.A.
PEN-66A*#	Emergency Airlock Equalizing Valve to Atmosphere	N.A.
PEN-66B*#	Emergency Airlock Equalizing Valve to Containment	N.A.
5. Power-Operated Valves		
FCV-22#	No. 4 Stm. Gen. Mn. Steam Isol. Valve Bypass OC	N.A.
FCV-23#	No. 3 Stm. Gen. Mn. Steam Isol. Valve Bypass OC	N.A.
FCV-24#	No. 2 Stm. Gen. Mn. Steam Isol. Valve Bypass OC	N.A.
FCV-25#	No. 1 Stm. Gen. Mn. Steam Isol. Valve Bypass OC	N.A.
FCV-37#	Auxiliary FWP Turb. Steam Supply S/G No. 2 OC	N.A.
FCV-38#	Auxiliary FWP Turb. Steam Supply S/G No. 3 OC	N.A.
FCV-41#	No. 1 Stm. Generator Mn. Steam Isol. OC	$\leq$ 5
FCV-42#	No. 2 Stm. Generator Mn. Steam Isol. OC	$\leq$ 5
FCV-43#	No. 3 Stm. Generator Mn. Steam Isol. OC	$\leq$ 5
FCV-44#	No. 4 Stm. Generator Mn. Steam Isol. OC	$\leq$ 5

TABLE 3.6-1 (Continued)

VALVE NO.	FUNCTION	ISOLATION TIME (Seconds)
5. Power-Operated Valves (Continued)		
FCV-235*	Containment H_2 Sample Supply IC	N.A.
FCV-236*	Containment H_2 Sample Supply OC	N.A.
FCV-237*	Containment H_2 Sample Return OC	N.A.
FCV-238*	Containment H_2 Sample Supply IC	N.A.
FCV-239*	Containment H_2 Sample Supply OC	N.A.
FCV-240*	Containment H_2 Sample Return OC	N.A.
FCV-658	Containment Purge to Aux. Bldg. Filters/ Ext. H_2 Recombiners Supply IC	N.A.
FCV-668	Containment Purge to Aux. Bldg. Filters/Ext. H_2 Recombiner Supply OC	N.A.
FCV-659	Containment Purge to Purge System Filters/Ext. H_2 Recombiners Supply IC	N.A.
FCV-669	Containment Purge to Purge System Filters/Ext. H_2 Recombiners Supply OC	N.A.
FCV-760#	Steam Generator No. 1 Blowdown IC	N.A.
FCV-761#	Steam Generator No. 2 Blowdown IC	N.A.
FCV-762#	Steam Generator No. 3 Blowdown IC	N.A.
FCV-763#	Steam Generator No. 4 Blowdown IC	N.A.
FCV-696*	Reactor Cavity Sump Sample (Post LOCA) Supply IC	N.A.
FCV-697*	Reactor Cavity Sump Sample (Post LOCA) Supply OC	N.A.

TABLE 3.6-1 (Continued)

VALVE NO.	FUNCTION	ISOLATION TIME (Seconds)
5. Power-Operated Valves (Continued)		
FCV-698*	Containment Air Sample (Post LOCA) Supply IC	N.A.
FCV-699*	Containment Air Sample (Post LOCA) Supply OC	N.A.
FCV-700*	Containment Air Sample (Post LOCA) Return OC	N.A.
PCV-19#	Steam Generator No. 1 10% Atmosphere Steam Dump OC	N.A.
PCV-20#	Steam Generator No. 2 10% Atmosphere Steam Dump OC	N.A.
PCV-21#	Steam Generator No. 3 10% Atmosphere Steam Dump OC	N.A.
PCV-22#	Steam Generator No. 4 10% Atmosphere Steam Dump OC	N.A.
8107#	Charging Line Isolation OC	N.A.
8700A#	RCS Hot Leg to RHR Pump 1 OC	N.A.
8700B#	RCS Hot Leg to RHR Pump 2 OC	N.A.
8701#	RCS Loop 4 Hot Leg to RHR IC	N.A.
8703#	RHR to RCS Hot Legs 1 and 2 IC	N.A.
8716A#	RHR to RCS Hot Legs OC	N.A.
8716B#	RHR to RCS Hot Legs OC	N.A.
8801A#	Charging Injection OC	N.A.
8801B#	Charging Injection OC	N.A.
8802A#	Safety Injection to RCS Hot Legs OC	N.A.
8802B#	Safety Injection to RCS Hot Legs OC	N.A.
8809A#	Residual Heat Removal to RCS Cold Legs 1 and 2	N.A.
8809B#	Residual Heat Removal to RCS Cold Legs 3 and 4	N.A.
8823#	Safety Injection Check Valve Test Line IC	N.A.

TABLE 3.6-1 (Continued)

VALVE NO.	FUNCTION	ISOLATION TIME (Seconds)
5. Power-Operated Valves (Continued)		
8824#	Safety Injection Check Valve Test Line IC	N.A.
8843#	Charging Injection IC	N.A.
8835#	Safety Injection to RCS Cold Legs OC	N.A.
8885A#	RHR to Cold Leg Test Line IC	N.A.
8885B#	RHR to Cold Leg Test Line IC	N.A.
8982A#	Containment Sump to Residual Heat Removal Train 1 OC	N.A.
8982B#	Containment Sump to Residual Heat Removal Train 2 OC	N.A.
8980#	Refueling Water Storage Tank to RHR OC	N.A.
9001A	Containment Spray Pump No. 1 Isolation OC	N.A.
9001B	Containment Spray Pump No. 2 Isolation OC	N.A.
9003A#	Residual Heat Removal to Containment Spray OC	N.A.
9003B#	Residual Heat Removal to Containment Spray OC	N.A.
6. Check Valves		
8028	Relief Valve Outlets to Pressurizer Relief Tank IC	N.A.
8046	Primary Water to Pressurizer Relief Tank IC	N.A.
8047	Nitrogen to Pressurizer Relief Tank IC	N.A.
8109	Seal Water Return IC	N.A.
8368A thru 8368D	Seal Water to Reactor Coolant Pumps IC	N.A.
8916	Nitrogen Supply to Accumulators IC	N.A.

TABLE 3.6-1 (Continued)

VALVE NO.	FUNCTION	ISOLATION TIME (Seconds)
6. Check Valves (Continued)		
9011A	Containment Spray IC	N.A.
9011B	Containment Spray IC	N.A.
CCW-585	CCW Supply to RCP IC	N.A.
CCW-581	CCW Return from RCP (FCV-749 Bypass) IC	N.A.
CCW-670	CCW Return from RCP (FCV-750 Bypass) IC	N.A.
MS-5200#	Nitrogen Supply to Stm. Gen. IC	N.A.
CCW-695	CCW Supply to Excess Letdown Heat Exchanger OC	N.A.
VAC-200	Containment Hydrogen Purge Supply IC	N.A.
VAC-201	Containment Hydrogen Purge Supply IC	N.A.
VAC-116	Containment Air Sample (Post LOCA) Return IC	N.A.
LWS-60	Nitrogen Supply to Reactor Coolant Drain Tank IC	N.A.
AIR-I-587	Instrument Air Supply IC	N.A.
AIR-S-114	Service Air Supply IC	N.A.
VAC-21	Containment Air Sample Return IC	N.A.
AXS-208	Auxiliary Stm. Supply to Containment IC	N.A.
FP-180	Containment Fire Water IC - Unit 1 only	N.A.
FP-867	Containment Fire Water IC - Unit 2 only	N.A.
VAC-252	Containment H_2 Sample Return IC	N.A.
VAC-253	Containment H_2 Sample Return IC	N.A.

*May be opened on an intermittent basis under administrative control (Normally closed manual or remotely OPERABLE valves only)
#Not subject to Type C leakage tests
##The provisions of Specification 3.0.4 are not applicable.

ADDITIONAL INFORMATION NO: Q 3.6.3-11 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 11-14 A
DOC 1-06 LS-19
DOC 11-07 LG
JFD 3.6-11
JFD 3.6-12
CTS 3.6.1.7 ACTIONS
CTS 3.6.3 ACTIONS
CTS 4.6.3.3
ITS 3.6.3 RA A.2 Note 2, RA C.2 Note 2, RA D.2 Note 2, SR 3.6.3.5 and Associated Bases

CTS 3.6.1.7 ACTIONS, CTS 3.6.3 ACTIONS, ITS 3.6.3 RA A.2, ITS 3.6.3 RA C.2 and ITS 3.6.3 RA D.2 have been modified by a Note that states the following: "Isolation devices that are locked, sealed or otherwise secured may be verified by administrative means". CTS 4.6.3.3 and ITS SR 3.6.3.5 have been modified by the phrase "that is not locked, sealed or otherwise secured in position" to clarify which valves require isolation time testing. These changes are characterized in JFD 3.6-11 and JFD 3.6-12 as a generic change designated WOG-91. The staff has not received this change through the STS generic change process (TSTF) and therefore considers this change to be beyond the scope of review for this conversion. See Comment Number 3.6.3-12.

Comment: Delete this generic change. See Comment Number 3.6.3-12.

FLOG RESPONSE: WOG-91 has recently been designated TSTF-269. While we recognize that this is a generic change to the STS, the change was approved by the Westinghouse Owners Group over 18 months ago and was expected to have been approved by this time. We expect the TSTF committee to forward TSTF-269 to the NRC in the very near future. We believe the technical merits of the change which supports NRC approved TSTF-45, Rev. 1, by providing additional clarification should justify rapid approval by the NRC. This TSTF is of sufficient value in precluding confusion, LERs, and inspection findings that should we be required to remove it from our submittal, an LAR would be submitted upon NRC approval of the TSTF. We believe that it would be cost effective for all concerned to retain this change within the submittal pending NRC review of TSTF-269.

ATTACHED PAGES:

Encl 5A Traveler Status Page, 3.6-13
Encl 6A 2

Industry Travelers Applicable to Section 3.6

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-17, Rev. 1	Incorporated	3.6-2	NRC approved.
TSTF-30, Rev. ~~1~~ 2 TR 3.6-002	Incorporated	3.6-4	Not applicable to Wolf Creek and Callaway.
TSTF-45, Rev. 1	Incorporated	3.6-5	NRC approved.
TSTF-46, Rev. 1	Incorporated	3.6-7	NRC approved.
TSTF-51	Not incorporated	N/A	Not NRC approved as of traveler cut-off date.
TSTF-52 Q3.6.1-6	Incorporated	3.6-1	Incorporated draft Rev. 1 per Q3.6.1-6
TSTF-145	Not incorporated	N/A	NRC approved as of traveler cut-off date.
~~WOG-91~~ TSTF-269	Incorporated	3.6-11, 3.6-12	

Q3.6.3-11

SURVEILLANCE REQUIREMENTS (Continued)

SURVEILLANCE		FREQUENCY
SR 3.6.3.4	----------NOTE---------- Valves and blind flanges in high radiation areas may be verified by use of administrative means. ---------- Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.	3.6-5 Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days
SR 3.6.3.5	Verify the isolation time of ~~each power operated and~~ each automatic ~~power operated~~ containment isolation valve ~~that is not locked, sealed or otherwise secured in position~~ is within limits.	In accordance with the Inservice Testing Program ~~or 92 days~~ P3.6.3-11 3.6-7 3.6-12 B-PS
SR 3.6.3.6	NOT USED ~~Cycle each weight or spring loaded check valve testable during operation through one complete cycle of full travel, and verify each check valve remains closed when the differential pressure in the direction of flow is ≤ [1.2] psid and opens when the differential pressure in the direction of flow is ≥ [1.2] psid and < [5.0] psid.~~	~~92 days~~ B-PS

(continued)

CHANGE NUMBER	JUSTIFICATION
3.6-5	This change is in accordance with TSTF-45, Rev. 1 and revises SR 3.6.3.3 and SR 3.6.3.4 to specify that only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed. The position of the locked, sealed, or otherwise secured valves was verified before the valves were locked, sealed, or otherwise secured.
3.6-6	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-7	This change is in accordance with TSTF-46, Rev. 1 and revises SR 3.6.3.5 to delete the reference to verifying the isolation time of "each power operated" containment isolation valve and only require verification of each "automatic isolation valve." Valves credited as containment isolation valves which are power operated (i.e., can be remotely operated) that do not receive a containment isolation signal do not have as isolation time as assumed in the accident analyses since they require operator action. Therefore, deleting reference to power operated isolation valve time testing reduces the potential for misinterpreting the requirements of this SR while maintaining the assumptions of the accident analyses.
3.6-8	Revises the Completion Time for the restoration of containment pressure from 1 hour to [4] hours. The [4] hour Completion Time is consistent with the CTS. The [4] hours [ ]allows the adequate time to take all Required Actions in a controlled manner.
3.6-9	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-10	Replaces the chemical additive tank volume limits in gallons with a tank level limits in percent [ ].
3.6-11	A new Note is added to ITS 3.6.3, Condition A.2 [and C.2] in accordance with Traveler WOG-91. The additional Note applies to isolation devices that are locked, sealed or otherwise secured in position and allows these devices to be verified closed by use of administrative means. It is sufficient to assume that initial establishment of component status (e.g., isolation valves closed) was performed correctly. Subsequently, verification is intended to ensure the component has not been inadvertently repositioned. Given that the function of locking, sealing, or securing components is to ensure the same avoidance of inadvertent repositioning, the periodic reverification should only be a verification of the administrative control that ensures that the component remains in the required state. It would be inappropriate to remove the lock, seal, or other means of securing the component solely to perform an active verification of the required state.
3.6-12	Consistent with SR 3.6.3.8, which provides that actuation position testing is not required for valves locked, sealed, or otherwise secured in their required position under administrative control, this change would provide that isolation time testing is not required for automatic containment isolation valves that are locked, sealed, or otherwise secured in their required position under administrative control. This change is consistent with WOG-91.
3.6-13	A clarifying note is added to SR 3.6.3.7 that would allow that leakage rate testing for containment purge valves with resilient seals is not required when the penetration flow path is isolated by a leak tested blind flange.
3.6-14	This change would incorporate plant specific operability criteria for containment fan cooler units required to meet design functional requirements. These requirements are contained in the CTS.
3.6-15	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-16	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-17	The ACTIONS and SRs of ITS 3.6.3 are modified to reflect DCPP current license bases allowance to open at one time any 2 of 3 the DBA qualified 48 inch purge supply and/or exhaust flow paths and 12 inch vacuum/pressure relief flow paths.

ADDITIONAL INFORMATION NO: Q 3.6.3-12 **APPLICABILITY:** DC

REQUEST:

DOC 11-14 A
DOC 11-07 LG
CTS 4.6.3.3

DCPP CTS 4.6.3.3 has been modified by the phrase "that is not locked, sealed or otherwise secured in position" to clarify which valves require isolation time testing. The change seems to be labeled DOC 11-07 LG. DOC 11-07 LG has nothing to do with this particular change. The change should be labeled DOC 11-14 A.

Comment: Correct this discrepancy. See Comment Number 3.6.3-11.

FLOG RESPONSE: DOC 11-07-LG has been removed from the CTS SR 4.6.3.3 markup and replaced with DOC 11-14-A.

ATTACHED PAGES:

Encl 2 3/4 6-16

SURVEILLANCE REQUIREMENTS (Continued)

Q3.6.3-9
Q3.6.3-8

power operated

4.6.3.3 The isolation time of each testable ~~power-operated or~~ automatic containment isolation valve that is not locked, sealed, or otherwise secured shall be determined to be within its limit when tested pursuant to ~~Specification 4.0.5~~ the Inservice Testing Program.

~~11-07-LG~~
11-09-A
11-14-A
Q3.6.3-12

4.6.3.4 Each containment ventilation isolation valve, except the air sample supply and return valves, shall be demonstrated OPERABLE every 184 days and within ~~24 hours~~ 92 days after ~~each closing of~~ opening the valve, ~~except when the valve is being used for multiple cycling, then at least once per 72 hours~~, by verifying leakage rates in accordance with the Containment Leakage Rate Testing Program. This surveillance is not required when the penetration flow path is isolated by a leak tested blank flange.

11-13-LS22
07-10-LS9
11-19-M
Q3.6.3-18

ADDITIONAL INFORMATION NO: Q 3.6.3-15 **APPLICABILITY:** DC, WC, CA

REQUEST:

DOC 7-04 R
CTS 3.6.1.7 (DCPP)
CTS 3.6.1.7.b (Callaway and WCGS)
CTS 3.6.1.7 ACTIONs (DCPP)
CTS 3.6.1.7 ACTION b (Callaway and WCGS)
CTS 4.6.1.7.2 (DCPP)
CTS 4.6.1.7.3 (Callaway and WCGS)

CTS 3.6.1.7, CTS 3.6.1.7 ACTIONS and CTS 4.6.1.7.2 for DCPP and CTS 3.6.1.7.b, CTS 3.6.1.7 ACTION b, and CTS 4.6.1.7.3 for Callaway and WCGS specify the cumulative time purge valves, vacuum/pressure relief valves and mini-purge valves may be opened per calendar year. The CTS markup shows these items as being relocated and justifies the relocation in DOC 7-04 R. The "R" designation is for technical specifications which do not meet the criteria of 10 CFR 50.36(c)(2)(ii) which applies to entire specifications, not individual LCO, ACTIONS or SRs. Based on Enclosure 3B "Conversion Comparison Table - Current TS 3/4.6," the change for Callaway and WCGS would be a Less Restrictive - Generic (LG) change since the information is relocated to the Safety Analyses Report; for DCPP the change would be either Less Restrictive - Generic (LG) or Less Restrictive - Specific (LS) depending on whether the "ECG" is controlled by 10 CFR 50.59 or not controlled by 10 CFR 50.59 respectively. The DCPP document "ECG" is not defined in the submittal. In addition, no justification is provided as to why this information can be relocated.

Comment: Revise the CTS markup to show this change as a Less Restrictive change and provide additional discussions and justification for this Less Restrictive change. The justification should include the reasons the individual items can be relocated. For DCPP describe the document "ECG" and the document change control process.

FLOG RESPONSE: DOC 7-04-R is revised to 7-04-LG since this information is being moved to a licensee-controlled document (Callaway to FSAR, Wolf Creek to USAR, and Diablo Canyon to ECG). DOC 7-04-LG has been modified to further clarify why containment purge supply and exhaust flow paths and for DCPP pressure/vacuum relief flow paths and the requirements to periodically accumulate the time the valves have been open can be moved to a licensee-controlled document. This is possible since DBA calculations assume the purge function may be in service at the start of the accident. Closure is assured by the redundance of these valves and that they are designed to close against DBA conditions. This combined with the low probability of a DBA while this flow path is in service makes the total risk very small.

Diablo Canyon has Equipment Control Guidelines (ECGs) that are controlled by DCPP Department-Level Administrative Procedure (DLAP) OP1.DC16, "Control of Plant Equipment Not Required by the Technical Specifications." DCPP ECGs are similar to other plants' Technical Requirement Manual (TRM). Changes to ECGs are made under the provisions of 10 CFR 50.59, as required by DLAP OP1.DC16 and FSAR Chapter 16. The NRC has

accepted ECGs as a licensee-controlled document. This is confirmed most recently in License Amendment 120/118 dated 2/3/98, page 2 of the NRCs safety evaluation report.

ATTACHED PAGES:

Encl 2	3/4 6-10
Encl 3A	6
Encl 3B	4

Q3.6.0-1
Q-07-A
07-01-A

LIMITING CONDITION FOR OPERATION

3.6.1.7 One purge supply line and/or one purge exhaust line of the Containment Purge System may be open or the vacuum/pressure relief line may be open ~~. The vacuum/pressure relief line may be open~~ provided the vacuum/pressure relief isolation valves are blocked to prevent opening beyond 50° (90° is fully open). Operation with any two of these three lines open is permitted. ~~Operation with the purge supply and/or exhaust isolation valves open or with the vacuum/pressure relief isolation valves open up to 50° shall be limited to less than or equal to 200 hours during a calendar year.~~ Q3.6.3-15 07-04-~~R~~ LG

APPLICABILITY: MODES 1, 2, 3, and 4. 11-02-A

ACTION: ~~**~~ ~~***~~ 03-13-A

~~With a containment purge supply and/or exhaust isolation valve open or the vacuum/pressure relief isolation valves open up to 50° for more than 200 hours during a calendar year or the Containment Purge System open and the vacuum/pressure relief lines open, or with the vacuum/pressure relief isolation valves open beyond 50°~~ With two containment purge supply or exhaust valves or two vacuum/pressure relief valves on the same penetration inoperable for reasons other than leakage, close the open isolation valve(s) or isolate the penetration(s) flowpath(s) within 1 hour; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 07-04-~~R~~ LG Q3.6.3-15 07-05-A 11-12-A

(new) One or more penetration flow paths with one or more containment purge or vacuum/pressure relief valves not within purge valve leakage limits. Within 24 hours isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange. Verify the affected penetration flow path is isolated once per 31 days for isolation devices outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment* and perform Surveillance 4.6.3.4 for the resilient seal purge valves closed to comply with this Required Action ~~E-1~~D.1, once per 92 days. 07-02-LS9 01-04-LS1 07-13-M Q3.6.3-35

SURVEILLANCE REQUIREMENTS

4.6.1.7.1 The position of the containment purge supply and exhaust isolation valves and the vacuum/pressure relief isolation valves shall be determined closed at least once per 31 days ~~except for one valve in a penetration flow path while in action 3.6.1.7 for excessive leakage.~~ 07-03-A Q3.6.3-5

~~4.6.1.7.2 The cumulative time that the purge supply and/or exhaust isolation valves or the vacuum/pressure relief isolation valves have been open during a calendar year shall be determined at least once per 7 days.~~ 07-04-~~R~~ LG Q3.6.3-15

4.6.1.7.3 The 12-inch vacuum/pressure relief isolation valves shall be verified to be blocked to prevent opening beyond 50° at least ~~once per 18 months.~~ each REFUELING INTERVAL ED DC-ALL-001

* Isolation devices in high radiation areas may be verified by use of administrative means. 01-04-LS1

** Separate Condition entry is allowed for each penetration flow path. 11-02-A

*** Enter applicable Conditions and Required Actions of the "Containment" LCO when leakage results in exceeding the overall containment leakage rate. 03-13-A

CHANGE NUMBER	NSHC	DESCRIPTION
07-03	~~X~~ LS 26	Q3.6.3-5 ~~A change [ ] consistent with NUREG-1431, SR 3.6.3.1, is added to provide an allowance for one isolation valve in a penetration flow path to be open when performing the Required Actions for leakage not within limits. This is actually a consistency change which goes with the revised Required Actions (see 07-02-LS9 above). The Required Action allows continued operation with leakage not in limits and this change to the SR allows a valve to be opened to repair the excessive leakage.~~ This change is not applicable to DCPP. See Conversion Comparison Table (Encl. 3B).
07-04	~~X~~ LG	The time limit restrictions on opening the [containment purge supply and exhaust and pressure/vacuum relief flow paths] and the requirements to periodically accumulate the time that the valves have been open would be ~~relocated~~ moved to licensee controlled documents. Insert Q3.6.3-15
07-05	A	Consistent with NUREG-1431, an ACTION is added for two valves inoperable in one penetration flow path. The change is administrative since the CTS would have relied on LCO 3.0.3 which has essentially the same requirements. [CTS LCO 3.6.1.7 ACTION and] Q3.6.3-16
07-06	LS11	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-07	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-08	M	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-09	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-10	LS9	A Note is added to clarify that leakage rate testing is not required for containment purge valves with resilient seals when the penetration flow path is isolated by a leak tested blank flange. The purpose of the leak testing requirement is to ensure containment leakage integrity during an accident, and thereby limit accident consequences. Isolation of the flow path with a leak tested blind flange accomplishes this safety function and additional leak testing of the valves in the flow path is redundant and unnecessary.
07-11	LS25	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-01	LG	Consistent with NUREG-1431, the LCO references to suction flowpath and manual transfer of suction to containment sump have been deleted. These details are included within the OPERABILITY requirements of the containment spray system (CSS) (as required by CTS 4.6.2.1 and as further described in the Bases). There is no technical change resulting from this deletion.
07-13	M	Insert Q3.6.3-35

Insert for 07-04-LG:

This is possible since DBA calculations assume the purge function may be in service at the start of the accident. Closure is assured by the redundancy of these valves and that they are designed to close against DBA conditions. This combined with the low probability of a DBA while this flow path is in service makes the total risk very small.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
06-01	Not used	N/A	N/A	N/A	N/A
06-02 A	The inspection requirements associated with structural integrity of the exposed accessible interior and exterior containment surfaces, are contained in Appendix J, Option B and in RG 1.163.	Yes No, see Amendments 120/118. 3.6.1.6 no longer in CTS	Yes φ3.6.1-5	No, 3.6.1.6 not in CTS.	No, 3.6.1.6 not in CTS.
06-03 TR2	Reporting requirement for containment structural integrity are deleted.	Yes	Yes	No, 3.6.1.6 not in CTS.	No, 3.6.1.6 not in CTS.
06-04 M	AOT for containment structural integrity not established decreased from 24 hours to 1 hour.	Yes	Yes	No, 3.6.1.6 not in CTS.	No, 3.6.1.6 not in CTS.
07-01 A	The LCO and SRs for containment ventilation/purge valves are now included in ITS 3.6.3 for Containment Isolation Valves.	Yes	Yes	Yes	Yes
07-02 LS9	The Required Actions for a containment ventilation/purge valve with a leakage rate which exceeds the acceptance criteria is revised to be stated on a per penetration flow path bases.	Yes	Yes	Yes	Yes
07-03 X LS261	Clarification is added to allow one isolation valve in a penetration flow path to be opened for repairs when performing the Required Actions for leakage rate not within limits.	~~Yes~~ No, see CN 11-01-LS13	Yes φ3.6.3-5	Yes	Yes
07-04 X LG	The time limit restrictions on opening the [pressure/vacuum relief] and the requirements to periodically accumulate the time that the valves have been open would be ~~relocated~~ moved to licensee controlled documents.	Yes, relocated to an ECG. φ3.6.3-15	No, CPSES does not have restrictions on these valves.	Yes, relocated to USAR Chapter 16	Yes, relocated to FSAR Chapter 16
07-05 A	An ACTION is added for two valves inoperable in one penetration flow path.	Yes	Yes	Yes	Yes

ADDITIONAL INFORMATION NO: Q 3.6.3-16 **APPLICABILITY:** DC

REQUEST:

DOC 7-04 R
CTS 3.6.1.7 ACTIONS
ITS 3.6.3 ACTIONS A and B

DCPP CTS 3.6.1.7 ACTIONS requires that with a containment purge supply and/or exhaust isolation valve open or with the vacuum pressure relief isolation valves open beyond 50 , the open isolation valve(s) be closed or the penetration be isolated within 1 hour. The CTS markup shows that the conditions for valves open have been relocated and the ACTION modified to conform to ITS ACTION B (two valves in a penetration inoperable). This is incorrect. The correct change is that the above two conditions are retained as ITS 3.6.3 ACTION A and the allowed outage time is increased from 1 hour to 4 hours. This is a Less Restrictive change. ITS 3.6.3 ACTION B is a new condition, which is considered as an Administrative change. The CTS does not have a provision for two valves in the same penetration inoperable, thus, CTS 3.0.3 is entered.

Comment: Revise the CTS markup to reflect the actual changes made and provide the appropriate discussions and justifications.

FLOG RESPONSE: The DCPP CTS 3.6.1.7 ACTION requires two things. First, if the penetration flow paths have accumulated more than 200 hours open (two valves must be open to accumulate hours against the flow path), then declare all of the containment purge isolation valves inoperable (the flow paths are inoperable) and isolate the flow paths within 1 hour. This item has been relocated to an ECG under DOC 7-04-LG (revised from DOC 7-04-LG, see 3.6.3-15 Response). Second, If the vacuum/pressure relief flow path is open and the vacuum/pressure relief isolation valves (two valves) are open more then 50°, the valves are to be declared inoperable and the flow path isolated within 1 hour. ITS LCO 3.6.3 ACTION B (two valves inoperable), was written as an administrative change reflecting the action of LCO 3.0.3. This item was retained and moved to ITS LCO 3.6.3 ACTION B (valves not meeting ITS SR 3.6.3.10) under DOC 7-05-A. DOC 7-05-A has been revised to reflect this DCPP specific information.

ATTACHED PAGES:

Encl 3A 6

For Information Only Pages:

Encl 2 3/4 6-10

CHANGE NUMBER	NSHC	DESCRIPTION
07-03	~~X~~ LS 26	Q3.6.3-5 ~~A change [ ] consistent with NUREG-1431, SR 3.6.3.1, is added to provide an allowance for one isolation valve in a penetration flow path to be open when performing the Required Actions for leakage not within limits. This is actually a consistency change which goes with the revised Required Actions (see 07-02-LS9 above). The Required Action allows continued operation with leakage not in limits and this change to the SR allows a valve to be opened to repair the excessive leakage.~~ This change is not applicable to DCPP. See Conversion Comparison Table (Encl. 3B).
07-04	~~X~~ LG	The time limit restrictions on opening the [containment purge supply and exhaust and pressure/vacuum relief flow paths] and the requirements to periodically accumulate the time that the valves have been open would be relocated (moved) to licensee controlled documents. Insert Q3.6.3-15
07-05	A	Consistent with NUREG-1431, an ACTION is added for two valves inoperable in one penetration flow path. The change is administrative since the CTS would have relied on LCO 3.0.3 which has essentially the same requirements. [CTS LCO 3.6.1.7 ACTION and] Q3.6.3-16
07-06	LS11	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-07	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-08	M	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-09	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-10	LS9	A Note is added to clarify that leakage rate testing is not required for containment purge valves with resilient seals when the penetration flow path is isolated by a leak tested blank flange. The purpose of the leak testing requirement is to ensure containment leakage integrity during an accident, and thereby limit accident consequences. Isolation of the flow path with a leak tested blind flange accomplishes this safety function and additional leak testing of the valves in the flow path is redundant and unnecessary.
07-11	LS25	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-01	LG	Consistent with NUREG-1431, the LCO references to suction flowpath and manual transfer of suction to containment sump have been deleted. These details are included within the OPERABILITY requirements of the containment spray system (CSS) (as required by CTS 4.6.2.1 and as further described in the Bases). There is no technical change resulting from this deletion.
07-13	M	Insert Q3.6.3-35

03.6.0-1
01-07-A
07-01-A

LIMITING CONDITION FOR OPERATION

3.6.1.7 One purge supply line and/or one purge exhaust line of the Containment Purge System may be open or the vacuum/pressure relief line may be open ~~. The vacuum/pressure relief line may be open~~ provided the vacuum/pressure relief isolation valves are blocked to prevent opening beyond 50° (90° is fully open). Operation with any two of these three lines open is permitted. ~~Operation with the purge supply and/or exhaust isolation valves open or with the vacuum/pressure relief isolation valves open up to 50° shall be limited to less than or equal to 200 hours during a calendar year.~~ Q3.6.3-15 07-04-~~X~~ LG

APPLICABILITY: MODES 1, 2, 3, and 4. 11-02-A

ACTION: ~~**~~ *** 03-13-A

~~With a containment purge supply and/or exhaust isolation valve open or the vacuum/pressure relief isolation valves open up to 50° for more than 200 hours during a calendar year or the Containment Purge System open and the vacuum/pressure relief lines open, or with the vacuum/pressure relief isolation valves open beyond 50°~~ With two containment purge supply or exhaust valves or two vacuum/pressure relief valves on the same penetration inoperable for reasons other than leakage, close the open isolation valve(s) or isolate the penetration(s) flowpath(s) within 1 hour; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 07-04-~~X~~ LG Q3.6.3-15 07-05-A 11-12-A

(new) One or more penetration flow paths with one or more containment purge or vacuum/pressure relief valves not within purge valve leakage limits: Within 24 hours isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange. Verify the affected penetration flow path is isolated once per 31 days for isolation devices outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment* and perform Surveillance 4.6.3.4 for the resilient seal purge valves closed to comply with this Required Action ~~E-10 I~~ once per 92 days. 07-02-LS9 01-04-LS1 07-13-M Q3.6.3-35

SURVEILLANCE REQUIREMENTS

4.6.1.7.1 The position of the containment purge supply and exhaust isolation valves and the vacuum/pressure relief isolation valves shall be determined closed at least once per 31 days ~~except for one valve in a penetration flow path while in action 3.6.1.7 for excessive leakage.~~ 07-03-A Q3.6.3-5

~~4.6.1.7.2 The cumulative time that the purge supply and/or exhaust isolation valves or the vacuum/pressure relief isolation valves have been open during a calendar year shall be determined at least once per 7 days.~~ 07-04-~~X~~ LG Q3.6.3-15

4.6.1.7.3 The 12-inch vacuum/pressure relief isolation valves shall be verified to be blocked to prevent opening beyond 50° at least ~~once per 18 months.~~ each REFUELING INTERVAL ED DC-ALL-001

* Isolation devices in high radiation areas may be verified by use of administrative means. 01-04-LS1

** Separate Condition entry is allowed for each penetration flow path. 11-02-A

*** Enter applicable Conditions and Required Actions of the Containment LCO when leakage results in exceeding the overall containment leakage rate. 03-13-A

ADDITIONAL INFORMATION NO: Q 3.6.3-17 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 7-06 LS-11
DOC 11-13 LS-22
JFD 3.6-18
JFD 3.6-19
CTS 4.6.1.7.2
CTS 4.6.1.7.3
CTS 4.6.1.7.4
CTS 4.6.3.4
ITS SR 3.6.3.6, SR 3.6.3.7 and Associated Bases

CTS 4.6.1.7.2, 4.6.1.7.3, 4.6.1.7.4 and 4.6.3.4 require a leak rate test for the various types of containment purge valves with resilient seals at various specified frequencies. In converting to the ITS these frequencies have been modified. In some cases, the frequency change is a Less Restrictive change (i.e., 24 hours to 92 days), while in others the change is More Restrictive (i.e., 24 months to 184 days), or Administrative (92 days to 92 days of opening valve). Considering the whole change, the staff cannot conclude that the preponderance of the changes would result in the change being classified as Less Restrictive as specified in DOCs 7-06 LS-11 and 11-13 LS-22, rather than More Restrictive or Administrative. The converse is also true. In order to more accurately reflect the changes made, each individual CTS should be reevaluated with regard to the changes and marked accordingly (Administrative, Less Restrictive or More Restrictive). See Comment Numbers 3.6.3-17, 3.6.3-18, 3.6.3-19, 3.6.3-20 and 3.6.3-21 for additional specific concerns with regards to this change.

Comment: Revise the CTS as specified and provide the appropriate discussions and justifications for the Administrative, Less Restrictive and More Restrictive changes. See Comment Numbers 3.6.3-18, 3.6.3-19, 3.6.3-20, 3.6.3-21 and 3.6.3-22.

FLOG RESPONSE: This comment deals with current surveillance requirements 4.6.1.7.2, 4.6.1.7.3, 4.6.1.7.4, and 4.6.3.4. The proposed changes associated with these surveillances, which deal with testing of valves with resilient seals, are addressed and justified as follows:

4.6.1.7.2 - For DCPP, this item is not applicable because it is not a leak test surveillance. For CPSES, the proposed changes delete STAGGERED TEST BASIS for the 184-day surveillance and add a new requirement to test within 92 days of opening the valve. The DOCs that support these changes are discussed in the response to Comment Number 3.6.3-19. In this response, CPSES has developed additional DOCs 7-14-M and 7-15-A and modified DOC 7-06 LS-11. For Callaway and Wolf Creek, the proposed changes involve allowing testing of the containment shutdown purge isolation valves with or without blank flanges installed. The DOC supporting the proposed changes (DOC 7-11 LS-25) is discussed in the response to Comment Number 3.6.3-21 and 3.6.3-24. To further support the Callaway and Wolf Creek changes, DOC 7-11 LS-25 has been modified to employ the

NUREG-1431 test frequencies of 184-day and within 92 days of opening as mitigating factors in the overall relaxation of test requirements for the containment shutdown purge isolation valves.

4.6.1.7.3 - For DCPP, this item is not applicable because it is not a leak test surveillance. For CPSES, the proposed changes revise the testing frequency for pressure relief valves from 92 days to 184 days and within 92 days of opening a valve. The DOCS that justify these changes are discussed in the response to Comment Number 3.6.3-20. In responding to Comment Number 3.6.3-20, DOC 7-06 LS-11 was used and new DOC 7-16-A was prepared. For Callaway and Wolf Creek, this item is not applicable because it is not a leak test surveillance.

4.6.1.7.4 - For DCPP and CPSES, this is not applicable because this surveillance is not used. For Callaway and Wolf Creek, the proposed changes revise the testing frequency for the mini-purge valves from 92 days to 184 days and within 92 days of opening a valve. The same DOCS (7-06 LS-11 and 7-16A) discussed in the response to Comment Number 3.6.3-20 also are applicable to the proposed changes for Callaway and Wolf Creek.

4.6.3.4 - For all the FLOG plants except DCPP, this surveillance is not used. For DCPP, the proposed changes revise the frequency of testing ventilation isolation valves from every 72 hours and within 24 hours of cycling a valve to every 184 days and within 92 days of opening a valve. The DOC supporting the proposed changes is addressed in the response to Comment Number 3.6.3-18.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.3-18 **APPLICABILITY:** DC

REQUEST:

DOC 11-13 LS-22
CTS 4.6.3.4
ITS SR 3.6.3.7 and Associated Bases

DCPP CTS 4.6.3.4 leak rate tests the containment ventilation isolation valves within 24 hours after each closing of the valve except when the valve is being used for multiple cycling then the frequency is at least once per 72 hours. DCPP ITS SR 3.6.3.7 changes the CTS frequencies to 184 days and within 92 days after opening the valve. DOC 11-13 LS-22 states that the leakage rate tests go from 30 months to 184 days (a More Restrictive change) and 24 hours to 92 days (a Less Restrictive change). DOC 11-13 LS-22 does not address the change or deletion of the 72 hour frequency. The CTS does not specify a frequency of 30 months.

Comment: Revise the CTS markup accordingly and provide additional discussion and justification on where the 30 month frequency is located in the CTS and on the change/deletion of the 72 hour frequency.

FLOG RESPONSE: DOC 11-19-M has been issued to address the more restrictive change of containment ventilation isolation valve leak testing frequency every 30 months to every 184 days. This change has been added to the CTS markup of CTS SR 4.6.3.4.

The CTS 30 month testing frequency is provided under the Containment Leak Rate Testing Program (CTS SR 4.6.1.2 changed by LA 120/118 to CTS SR 4.6.1.1.c) which is committed under 10 CFR 50, App J, Option B to Reg. Guide 1.163 (see para. C.2 for guidance of the containment ventilation isolation valves which are good performing valves). This allows for a maximum 30-month frequency. The DCPP license for the containment ventilation isolation testing was based upon a plant specific resolution of the valve reliability issue addressed by Generic Issue B-20, "Containment Leakage Due to Seal Deterioration." The CTS addresses seal deterioration by requiring testing within 24 hours if the valve has been opened and at least once every 72 hours upon multiple cycling. This more restrictive change adopts the resolution of Generic Issue B-20 as reflected in NUREG-1431.

DOC 11-13-LS22 has been revised to remove the "every 30 months to every 184 days" information. The phrase "...and at least once every 72 hours during multiple cycling..." has been added to the description of DOC 11-13-LS22 and LS-22. The justification is based upon the good performance record of these valves.

ATTACHED PAGES:

Encl 2	3/4 6-16
Encl. 3A	11, 12
Encl 3B	10
Encl 4	46, 47

SURVEILLANCE REQUIREMENTS (Continued)

Q3.6.3-9
Q3.6.3-8

power operated

4.6.3.3 The isolation time of each testable ~~power-operated or~~ automatic containment isolation valve that is not locked, sealed, or otherwise secured shall be determined to be within its limit when tested pursuant to ~~Specification 4.0.5~~ the Inservice Testing Program.

~~11-07-LG~~
11-09-A
11-14-A
Q3.6.3-12

4.6.3.4 Each containment ventilation isolation valve, except the air sample supply and return valves, shall be demonstrated OPERABLE every 184 days and within ~~24 hours~~ 92 days after ~~each closing of~~ opening the valve, ~~except when the valve is being used for multiple cycling, then at least once per 72 hours~~, by verifying leakage rates in accordance with the Containment Leakage Rate Testing Program. This surveillance is not required when the penetration flow path is isolated by a leak tested blank flange.

11-13-LS22
07-10-LS9
11-19-M
Q3.6.3-18

Φ3.6.3-9
Φ3.6.3-8

CHANGE NUMBER	NSHC	DESCRIPTION
11-09	A	Consistent with NUREG-1431 and industry Traveler TSTF-46, Rev. 1, the isolation time surveillance is revised to delete the reference to verifying "each power operated" containment isolation valve and only require verification of each "automatic isolation valve." Containment isolation valves which are power operated but do not receive a containment isolation signal (i.e. can be remotely operated), do not have an isolation time assumed in the accident analysis since they require operator action. Therefore, deleting the reference to power operated isolation valve time testing is a clarification that reduces the potential for misinterpreting the requirements of this SR while maintaining the assumptions of the accident analysis. (power operated containment)
11-10	A	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
11-11	A	A Note is added to the main containment isolation specification that the LCO is not applicable to main steam safety valves (MSSVs), main steam isolation valves (MSIVs), feedwater isolation valves (~~FIVs~~ MFIVs), [ ] and atmospheric dump valve (ADVs). Φ3.6.3-10 ~~License Amendment (LA) 73/72 (LAR 91-08, 12/26/91) removed the listing of containment isolation valves (Table 3.6-1) and authorized revision of the list under the control of the Administrative section of the TS (e.g., under 10 CFR 50.59). These valves are currently not considered to have a containment isolation function.~~ This note is consistent with current licensing bases. (Insert)
11-12	A	The phase "flow path" is added for clarification and constancy with NUREG-1431. This specification is based on GDC 55, 56, and 57 which address the proper isolation for each "line" that penetrates containment. Licensees have always been required to assure that proper protection is provided for each line or flow path that passes through containment even if multiple flow paths share the same penetration. In this specification, the term "penetration" has always meant each flow path that penetrates containment. Adding the words "flow path" to the specification clarifies this meaning. Φ3.6.3-18
11-13	LS22	This change revises the DCPP containment ventilation isolation valve leak rate surveillance frequency ~~from 30 months to every 184 days and~~ from 24 hours and at least once every 72 hours during multiple cycling to 92 days after opening a valve. This change is consistent with NUREG-1431 and NRC resolution of Multi-Plant Action No. B-20, "Containment Leakage Due to Seal Deterioration." These valves have a good service record and have consistently met leakage rate requirements. The revised 92 day frequency still reflects conservative margin to compensate for degradation of the resilient seats in these valves.

CHANGE NUMBER	NSHC	DESCRIPTION
11-14	A	Consistent with NUREG-1431, the phrase "that is not locked, sealed, or otherwise secured in position" is added for clarification in regard to which valves require isolation time testing. Valves that are secured in place, are secured in the position required to meet their safety function. The isolation time testing ensures that valves can respond to the position that meets their safety function in the time assumed in the safety analysis. If the valves are secured in the position that meets their safety function, no testing is necessary.
11-15	A	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
11-16	A	Even though it is not specified in ITS 3.6.3 Required Actions, the ACTION to restore the inoperable valve stated in CTS 3.6.3.a is understood as always the primary objective and a continuous option to be performed during any Completion Time.
11-17		Not Used.
11-18	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
11-19	M	Insert CP3.6.3-18
12-01	A	Consistent with NUREG-1431, the hydrogen monitoring specification is moved to improved STS Section 3.3.3 concerning Post Accident Monitoring (PAM) Instrumentation.
12-02	M	Consistent with the MODE of Applicability for PAM instrumentation in NUREG-1431, the MODE of Applicability for the hydrogen monitors is extended to MODE 3.
12-03	LS15	Consistent with NUREG-1431 the ACTION is revised to require a special report be submitted within 14 days in lieu of being in HOT STANDBY within 6 hours, if one train of hydrogen monitoring cannot be restored to operable within 30 days. This is acceptable because the report is required to identify alternative methods for monitoring and plans and schedule for restoring the instrumentation before a loss of functional capability occurs. (See ITS LCO 3.3.3 and 5.6.8)
12-04	M	Adds the requirement to be in HOT SHUTDOWN within 12 hours if both trains of hydrogen monitoring are inoperable and one train was not restored within 72 hours. This is a more restrictive requirement than is currently applied and is being done to be consistent with the PAM requirements in NUREG-1431.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
11-11 A	A note is added to the containment isolation specification that the LCO is not applicable to MSSVs, MSIVs, FIVs, [ ] and ADVs.	Yes	No, already part of CTS.	Yes	Yes
11-12 A	The phase "flow path" is added for clarification and consistency with NUREG-1431.	Yes	Yes	Yes	Yes
11-13 LS22	This change revises the DCPP containment ventilation isolation valve surveillance frequency from 30 months to every 184 days and from 24 hours to 92 days after opening a valve.	Yes	No	No	No
11-14 A	The phrase "that is not locked, sealed, or otherwise secured in position" is added for clarification in regard to which valves require isolation time testing.	Yes	Yes	Yes	Yes
11-15 A	A Callaway specific note to 3.6.3 regarding testing is deleted based on ITS LCO 3.0.5.	No	No	No	Yes
11-16 A	Even though it is not specified in ITS 3.6.3 Required Actions, the ACTION to restore the inoperable valve stated in CTS 3.6.3.a is understood as always the primary objective and a continuous option to be performed during any Completion Time.	Yes	Yes	Yes	Yes
11-17	Not Used.	N/A	N/A	N/A	N/A
11-18 ~~LG~~ A	The Callaway specific words "during the COLD SHUTDOWN or REFUELING MODE" ~~are moved to the Bases.~~ in CTS SR 4.6.3.2 are deleted.	No Q3.6.3-33	No	No	Yes
12-01 A	Consistent with NUREG-1431, the hydrogen monitoring specification is moved to ITS Section 3.3.3, concerning PAM instrumentation.	Yes	Yes	No, CTS hydrogen monitoring requirements are not in this Section.	No, CTS hydrogen monitoring requirements are not in this Section.
11-19 M	Insert Q3.6.3-18				

Encl 3A - page 12

11-19-M This DCPP plant specific change addresses the more restrictive change of containment ventilation isolation valve leak testing frequency every 30 months revised to every 184 days. The DCPP license for the containment ventilation isolation testing was based upon a plant specific resolution of the valve reliability issue addressed by Generic Issue B-20, Containment Leakage Due to Seal Deterioration." This provided for a testing frequency no different from any other valve as provided for in the Containment Leak Rate Testing Program (CTS SR 4.6.1.2 changed by LA 120/118 to CTS SR 4.6.1.1.c) which is committed under 10 CFR50, App J, Option B to Reg. Guide 1.163 (see Par C.2 for guidance of the containment ventilation isolation valves which are good performing valves). The Containment Leak Rate Testing Program provides for a maximum 30 month frequency. The CTS addresses seal deterioration by requiring testing within 24 hour if the valve has been opened (at least once every 72 hour upon multiple cycling). This more restrictive change adopts the resolution of Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" as reflected in NUREG-1431.

Encl 3B - page 10

11-19-M This DCPP plant specific change addresses the more restrictive change of containment ventilation isolation valve leak testing frequency every 30 months revised to every 184 days.

Applicability:		
	DC	YES
	CP	NO
	WC	NO
	CA	NO

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

NSHC LS22
10 CFR 50.92 EVALUATION
FOR
TECHNICAL CHANGES THAT IMPOSE LESS RESTRICTIVE
REQUIREMENTS WITHIN THE TECHNICAL SPECIFICATIONS

and at least once every 72 hours during multiple cycling CP3.6.3-18

This change revises the containment ventilation isolation valve leakage surveillance frequency after opening a valve from 24 hours to 92 days. This change is consistent with NUREG-1431. These valves have a good service record and have consistently met leakage rate requirements. The revised 92 day frequency still reflects conservative margin to compensate for degradation of the resilient seats in these valves. ~~This change also adds the more restrictive change that the valves be leak tested every 184 days (CTS states 18 months) even if they have not been used.~~

This proposed TS change has been evaluated and it has been determined that it involves NSHC. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92 (c) as quoted below:

> *"The Commission may make a final determination, pursuant to the procedures in 50.91, that a proposed amendment to an operating license for a facility licensed under 50.21 (b) or 50.22 or for a testing facility involves NSHC, 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?

   These valves fully meet the requirement of the Branch Technical Position CSB 6-4 (except for their larger size). The ten year service records for these valves show that they consistently meet their leakage rate limits. The revised surveillance frequency still retains the NRC recommended adequate margin to compensate for the fact that these valves are resilient seated valves. Therefore, the proposed change to surveillance frequency does not effect 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 to the surveillance frequency does not involve a physical alteration to any plant equipment, causes no change in the method by which any safety related system performs its function, and does not alter the manner in which any safety system is operated. Therefore, the proposed change would not create the possibility of a new or different kind of accident.

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

   These valves fully meet the requirement of the Branch Technical Position CSB 6-4 (except for their larger size). The [nine] year service records for these valves show that they consistently meet their leakage rate limits. The revised surveillance frequency still retains the NRC recommended adequate margin to compensate for the fact that these valves are resilient seated valves. Therefore, there is no significant reduction in the margin of safety.

NSHC LS22
(Continued)

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based upon the preceding information, it has been determined that the proposed changes associated with NSHC "LS22" do not involve a significant increase in the probability or consequences of an accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in a margin of safety. Therefore, it is concluded that the proposed change meets the requirements of 10 CFR 50.92 (c), and does not involve a significant hazards consideration.

ADDITIONAL INFORMATION NO: Q 3.6.3-23 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 7-10 LS-9
JFD 3.6-13
CTS 4.6.1.7.2
CTS 4.6.1.7.3
CTS 4.6.1.7.4
CTS 4.6.3.4
STS SR 3.6.3.7 and Associated Bases
ITS SR 3.6.3.7 and Associated Bases

A Note has been added to CTS 4.6.1.7.2, 4.6.1.7.3, 4.6.1.7.4, 4.6.3.4 and STS SR 3.6.3.7 to clarify that leakage rate testing is not required for containment purge valves with resilient seals when the penetration flow path is isolated by a leak tested blank flange. The staff position is that the valve would still need to be leak tested since the 10 CFR 50 Appendix J requires both isolation devices in the containment penetration to be tested except for GDC 57 penetrations. In addition, because the CTS does not currently contain this exception, the staff considers this change to be a beyond scope of review item for this conversion, as well as a generic change to the STS.

Comment: Delete this generic change.

FLOG RESPONSE: While we recognize that this is a generic change to the STS, the change was sent to the Westinghouse Owners Group for consideration during their June 1998 meeting. We believe the technical merits of the change should justify rapid approval by the WOG, TSTF, and the NRC. We request that the NRC keep this as an open item under the assumption that it will be approved prior to issuance of the SER. This change is of sufficient value in precluding confusion, LERs, and inspection findings that should we be required to remove it from our submittal, an LAR would be submitted upon NRC approval of the TSTF version of the change. We believe that it would be cost effective for all concerned to retain this change within the submittal pending NRC review of this proposed TSTF.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.3-27 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 11-08 TR-1
CTS 4.6.3.2
ITS SR 3.6.3.8 and Associated Bases.

CTS 4.6.3.2 requires that each automatic containment isolation valve actuates to its isolation position on a specified test signal. In converting the CTS requirements to ITS SR 3.6.3.8 the CTS is modified to allow credit to be taken for an actual as well as a simulated (test) signal. DOC 11-08 TR-1 does not provide sufficient information to justify allowing the use of an actual signal.

Comment: Provide additional discussion and justification to allow the use of an actual signal to meet this surveillance requirement.

FLOG RESPONSE: The CTS requires the use of a test signal for initiation of valid tests. The unintentional result was to require the reperformance of the verification even if an actual signal had already verified proper operation of the equipment. TR1 allows either an actual or test signal. DOC 11-08 TR-1 has been revised to provide additional discussion and justification to allow the use of an actual signal to meet this surveillance requirement.

ATTACHED PAGES:

Encl 3A 10

CHANGE NUMBER	NSHC	DESCRIPTION
11-05	LS14	A new Condition is added to the current Containment Isolation Valve TS to cover the case where one containment isolation valve is inoperable in a penetration flow path of the type configured with only one containment isolation valve and a closed system. General Design Criteria (GDC) 57 allows the use of a closed system in combination with a containment isolation valve to provide the two containment barriers against the release of radioactive material following an accident. Traveler TSTF-30, Rev. 1, provides the basis for extending the Completion Time for this Condition to allow 72 hours to isolate an inoperable isolation valve associated with a closed system. The CTS, LCO 3.6.3, does not allow the use of a closed system to isolate a failed containment isolation valve even though the closed system is subjected to a Type A containment leakage test, is missile protected, and is seismic Category I piping. Also, a closed system typically has flow through it during normal operation such that any loss of integrity could be observed through leakage detection systems within containment and system walkdowns for closed systems outside containment. As such, the use of a closed system is equivalent to isolating a failed containment isolation valve by use of a single valve as specified in NUREG-1431, Required ACTION A.1. The 72 hours provides the necessary time to perform repairs on a failed containment isolation valve when relying on an intact closed system. A Completion Time of 72 hours is considered appropriate given the reliability of the closed system and that 72 hours is typically provided for losing one train of redundancy throughout the NUREG. If the closed system and associated containment isolation valve were both inoperable, the plant would be in LCO 3.0.3 since there is no specific Condition specified.
11-06	TR3	Consistent with NUREG-1431, the CTS SR to demonstrate the OPERABILITY of each containment isolation valve by performance of a cycling and isolation time test prior to returning the valve to service after maintenance, repair, or replacement work on the valve or its associated actuator, control or power circuit has been deleted. Any time repairs, maintenance or modifications have affected the OPERABILITY of a system or component, post-maintenance testing is required to demonstrate operability of the system or component. Particular SRs needed to demonstrate OPERABILITY of the system must be evaluated for each maintenance or modification performed. Explicit post-maintenance and modification TS SRs have therefore been deleted from the ITS because these requirements are inherent in the LCO OPERABILITY requirements.
11-07	LG	Consistent with the NUREG-1431 level of detail, the descriptive material regarding the required containment isolation valve actuation signals in the CTS surveillance requirement is moved to the revised expanded Bases. This is acceptable as the requirement to verify actuation of the valves is retained in the TSs while the identification of the applicable actuation signal is moved to the Bases.
11-08	TR1	The actuation surveillance is revised consistent with NUREG-1431 to clarify that an actual signal as well as a test signal may be used to verify actuation. The actuation signal is moved to the Bases. Insert Q3.6.3-27

Insert for 11-08-TR1:

In several specifications throughout the TS, OPERABILITY of certain equipment is demonstrated by ensuring that the equipment performs it safety function upon receipt of a simulated test signal. The intent of a 'simulated' signal was to be able to perform the required testing without the occurrence (or without causing) an actual signal generating event. However, the unintended effect was to require the performance of the surveillance (using a test signal) even if an actual signal had previously verified the operation of the equipment. This change allows credit to be taken for actual events when the required equipment actuates successfully.

While the occurrence of events that cause actuation of accident mitigation equipment is undesirable, the actuation of mitigation equipment on an actual signal is a better demonstration of its OPERABILITY than an actuation using a test signal. Thus the change does not reduce the reliability of the equipment tested. The change also improves plant safety by reducing the amount of time the equipment is taken out of service for testing and thereby increasing its availability during an actual event and by reducing the wear of the equipment caused by unnecessary testing.

ADDITIONAL INFORMATION NO: Q 3.6.3-28 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 1-01 LG
CTS 3.6.1.1 ACTIONS
CTS 4.6.1.1.a
ITS 3.6.3 ACTIONS
ITS SR 3.6.3.3, SR 3.6.3.4 and Associated Bases

CTS 4.6.1.1.a verifies that all penetrations not capable of being closed by OPERABLE automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions. The corresponding ITS SRs for this CTS surveillance are ITS SR 3.6.3.3 for valves outside containment and ITS SR 3.6.3.4 for valves inside containment. IF CTS 4.6.1.1.a cannot be met, the ACTIONS of CTS 3.6.1.1 are entered which require restoration of valve OPERABILITY within 1 hour or shutdown within the following 36 hours. If ITS SR 3.6.3.3 or ITS SR 3.6.3.4 cannot be met, the ACTIONS of ITS 3.6.3 are entered which allows for one valve inoperable between 4 hours and 72 hours depending on the type of penetration to restore valve OPERABILITY before shutdown commences. This Less Restrictive change to the CTS is not justified.

Comment: Revise the CTS markup to show this Less Restrictive change and provide the appropriate discussions and justifications.

FLOG RESPONSE: Diablo Canyon, Comanche Peak, Wolf Creek, and Callaway have evaluated this issue and have concluded that no change in requirements occurred. The content of CTS SR 4.6.1.1a. was moved to ITS SR 3.6.3.3 and ITS SR 3.6.3.4 with the Required Action time being moved to ITS LCO 3.6.3 ACTION B (see DOC 01-02-A). Additionally, implicit valve OPERABILITY aspects of CTS SR 4.6.1.1.a were combined with CTS LCO 3.6.3 ACTION and are now shown as ITS LCO 3.6.3 ACTION A, B, and C for DCPP. CTS SR 4.6.1.1.a was written to provide assurance that "all penetrations not capable of being closed ... are ...secured." Containment OPERABILITY is associated with <u>penetration</u> flow paths per the CTS Bases 3/4.6.1.1 which states "CONTAINMENT INTEGRITY ensures that releases ... will be restricted to those leakage paths ... assumed in the safety analysis." The flow path (penetration) must be unsecured for the condition of CTS SR 4.6.1.1.a to not be met. Under CTS LCO 3.6.3 - ACTION, one inoperable containment isolation valve (a valve unsecured/out of position for a penetration "not capable of being closed during an accident") would provide 4 hours to restore the valve or secure the flow path. This was not changed under ITS 3.6.3 ACTION A. One "penetration" not meeting the conditions of CTS SR 4.6.1.1.a (two valves unsecured/out of position in the same flow path) would provide 1 hour to secure one valve closed in order to restore containment OPERABILITY. This was also retained under ITS 3.6.3 ACTIONS B.

DOC 01-02-A will be revised to read "....Conditions A, B, and C and Surveillance Requirements (SR) 3.6.3.3 and SR 3.6.3.4."

ATTACHED PAGES:

Encl 3A 1

DESCRIPTION OF CHANGES TO TS SECTION 3/4.6

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	~~LG~~ A	~~CONTAINMENT INTEGRITY is no longer a defined term in NUREG-1431. The requirements for containment OPERABILITY, including the requirements previously found in the CONTAINMENT INTEGRITY definition, are discussed in the expanded Bases of the containment limiting condition for operation (LCO). This change is consistent with NUREG-1431.~~ Insert φ3.6.1-1
01-02	A	Consistent with NUREG-1431, this requirement to verify the penetration flow path is isolated is now addressed by improved Technical Specification (ITS) 3.6.3, Containment Isolation Valves, Condition A, B, and C ~~and [D]~~ and Surveillance Requirements (SR) 3.6.3.3 and SR 3.6.3.4. φ3.6.3-28
01-03	A	The ACTION statements are revised to incorporate the NUREG-1431 alternative isolation method of a "check valve with the flow through the valve secured." This isolation method is provided in NUREG-1431 and is considered an acceptable variation of a de-activated automatic valve.
01-04	LS1	A Note is added to valve and blind flange SRs consistent with NUREG-1431. The Note allows verification of valves, flanges, and isolation devices located in high radiation areas to be verified by use of administrative means. This change is less restrictive in that the CTS SR 4.6.1.1 has an exception to valves, blind flanges, and deactivated automatic valves which are located inside containment and are locked, sealed, or otherwise secured in the closed position. These valves shall be verified closed during each COLD SHUTDOWN. However, under CTS, if an area outside of containment becomes a high radiation area, we would still be required to enter the area to verify the closed positions. The ITS would allow verification of all areas that are high radiation areas or become high radiation areas to be verified by administrative means once they have been verified to be in the proper position. This is considered acceptable, since access to these areas is restricted for ALARA reasons. Therefore, the probability of misalignment of these devices, once they have been initially verified in the proper position, is small.
01-05	A	Consistent with NUREG-1431, this requirement is addressed by SR 3.6.2.1 in ITS 3.6.2, Containment Air Locks Required Actions.

ADDITIONAL INFORMATION NO: Q 3.6.3-29 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 2-05 LG
JFD 3.6-1
CTS 4.6.1.2c and 4.6.1.2.d (CPSES)
CTS 4.6.1.7.2
CTS 4.6.1.7.3
CTS 4.6.1.7.4
CTS 4.6.3.4
ITS SR 3.6.3.6, SR 3.6.3.7 and Associated Bases.

Comment: See Comment Number 3.6.1-6.

FLOG RESPONSE: See response for Comment Number 3.6.1-6.

ATTACHED PAGES:

See attached pages for response Comment Number Q 3.6.1-6.

ADDITIONAL INFORMATION NO: Q 3.6.3-34 **APPLICABILITY:** DC, CP, CA

REQUEST:

JFD 3.6.3-5
STS SR 3.6.3.3, SR 3.6.3.4 and Associated Bases
ITS SR 3.6.3.3, SR 3.6.3.4 and Associated Bases

STS SR 3.6.3.3 and SR 3.6.3.4 have been modified by TSTF-45 Rev. 1. While ITS SR 3.6.3.3 and SR 3.6.3.4 have incorporated the changes associated with TSTF-45 Rev. 1, the Bases for ITS SR 3.6.3.3 and SR 3.6.3.4 do not fully incorporate all of the Bases changes associated with TSTF-45 Rev. 1.

Comment: Revise the Bases for ITS SR 3.6.3.3 and SR 3.6.3.4 to incorporate the Bases changes associated with TSTF-45 Rev. 1 or provide additional discussion and justification for the deviations.

FLOG RESPONSE: ITS Bases SR 3.6.3.3 and Bases SR 3.6.3.4 have been revised to be consistent with TSTF-45, Rev.1. The following statement has been added to both Bases sections:

"This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed positions, since these were verified to be in the correct position upon locking, sealing, or securing."

This question is not applicable to Callaway since the ITS Bases for SR 3.6.3.3 and 3.6.3.4 already contain this statement.

ATTACHED PAGES:

Encl 5B B3.6-23

For Information Only Pages:

Encl 5B B3.6-22 and 24

SURVEILLANCE REQUIREMENTS

SR 3.6.3.1 Not Used

~~Each 48 inch Containment Purge and 12 inch Hydrogen Purge valve is required to be verified sealed closed at 31 day intervals. This Surveillance is designed to ensure that a gross breach of containment is not caused by an inadvertent or spurious opening of a Containment Purge or Hydrogen Purge valve. Detailed analysis of the purge these valves failed to conclusively demonstrate their ability to close during a LOCA in time to limit offsite doses. Therefore, these valves are required to be in the sealed closed position during MODES 1, 2, 3, and 4. A Containment Purge or Hydrogen Purge valve that is sealed closed must have motive power to the valve operator removed. This can be accomplished by de-energizing the source of electric power or by removing the air supply to the valve operator. In this application, the term "sealed" has no connotation of leak tightness. The Frequency is a result of an NRC initiative, Generic Issue B-24 (Ref. 4 5), related to containment purge valve use during plant operations. In the event Containment Purge or Hydrogen Purge valve leakage requires entry into Condition E, the Surveillance permits opening one purge valve in a penetration flow path to perform repairs.~~

SR 3.6.3.2

This SR ensures that the ~~minipurge 18 inch Containment Pressure Relief~~ 48 inch Containment Purge supply and exhaust and the 12 inch Containment Pressure/Vacuum Relief valves are closed as required or, if open, open for an allowable reason. If a purge or pressure relief valve is open in violation of this SR, the valve is considered inoperable. If the inoperable valve is not otherwise known to have excessive leakage when closed, it is not considered to have leakage outside of limits. The SR is not required to be met when the ~~minipurge~~ Containment Purge supply and exhaust or Containment Pressure Relief valves are open for the reasons stated. The valves may be opened for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances that require the valves to be open. The ~~minipurge~~ Containment Purge supply and exhaust or Containment Pressure/Vacuum Relief valves are capable of closing in the environment following a LOCA. Therefore, these valves are allowed to be open for limited periods of time. The 31 day Frequency is consistent with other containment isolation valve requirements discussed in SR 3.6.3.3.

SR 3.6.3.3

This SR requires verification that each containment isolation manual valve and blind flange located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure

(Continued)

remove strike-out

BASES

remove strike-out

that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification~~, through a system walkdown,~~ that those containment isolation valves outside containment and capable of being mispositioned are in the correct position. Since verification of valve position for containment isolation valves outside containment is relatively easy, the 31 day Frequency is based on engineering judgment and was chosen to provide added assurance of the correct positions. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time the valves are open.

which may include the use of local or remote indicators

Q3.6.3-52

The Note applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3 and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in the proper position, is small. Q3.6.3-34

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.4

This SR does not apply to valves that are locked, sealed, or otherwise secured in a closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

This SR requires verification that each containment isolation manual valve and blind flange located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. For containment isolation valves inside containment, the Frequency of "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is appropriate since these containment isolation valves are operated under administrative controls and the probability of their misalignment is low. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time they are open.

This Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3, and 4, for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

~~Note 2 modifies the requirement to verify the blind flange on the fuel transfer canal. The refueling cavity areas in containment are flooded only during plant shutdown for refueling. The flange is only removed to support refueling operations and replaced after drainage of the canal when no more fuel transfers between the fuel handling building and the containment will occur. Once replaced, the flange is not removed again until the next refueling. Since the removal of this flange is limited to refueling operations, and access to it is restricted during MODES 1, 2, 3, and 4, the probability.~~

(Continued)

BASES

~~of it being mispositioned between refuelings is small. Therefore, it is reasonable that it is only required to be verified closed after each drainage of the canal.~~

SR 3.6.3.5

Power operated

Verifying that the isolation time of each ~~power operated and~~ automatic containment isolation valve is within limits is required to demonstrate OPERABILITY. The isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analyses. ~~[~~ The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program. ~~or 92 days.]~~ Q3.6.3-8 Q3.6.3-9

SR 3.6.3.6 Not Used

SURVEILLANCE REQUIREMENTS (Continued)

~~In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.6 requires verification of the operation of the check valves that are testable during unit operation. The Frequency of 92 days is consistent with the Inservice Testing Program requirement for valve testing on a 92 day Frequency.~~

SR 3.6.3.7

For Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ and Containment Pressure/Vacuum Relief valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J, Option B is required to ensure OPERABILITY. Operating experience has demonstrated that this type of seal has the potential to degrade in a shorter time period than do other seal types. Based on this observation and the importance of maintaining ~~this~~ these penetrations leak tight (due to the direct path between containment and the environment), a Frequency of 184 days was established as part of the NRC resolution of Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" (Ref. ~~3~~ 4).

Additionally, this SR must be performed within 92 days after opening the valve. The 92 day Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (beyond that occurring to a valve that has not been opened). Thus, decreasing the interval (from 184 days) is a prudent measure after a valve has been opened.

The leak rate acceptance criteria for the containment purge supply and exhaust, ~~hydrogen purge,~~ and containment pressure/vacuum relief valves are in accordance with the Containment Leakage Rate Testing Program.

(Continued)

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: Q 3.6.3-35 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

CTS 3.6.1.7 ACTION a and b
ITS 3.6.3 ACTION A

CTS 3.6.1.7 ACTION a and CTS 3.6.1.7 ACTION b (CPSES) specifies that with a containment purge valve inoperable for reasons other than leakage, the valve shall be closed or the penetration isolated within 4 hours. ITS 3.6.3 ACTION A in addition to isolating the penetration within 4 hours requires verifying that the penetration is isolated on a specified frequency. This is not reflected in the CTS markup of CTS 3.6.1.7 ACTIONS a and b.

Comment: Revise the CTS markup to reflect the actual changes to be made and provide the appropriate discussion and justification for this Less Restrictive change.

FLOG RESPONSE: This comment also applies to ACTION c for Wolf Creek, Callaway and Comanche Peak. Diablo Canyon has determined that this comment is applicable to them.

The ITS requirements to verify penetration isolation have been added as necessary to the appropriate CTS 3.6.1.7 ACTIONS. The addition of this wording to the CTS is considered a more restrictive change. DOC (07-13- M) justifies the wording changes to the CTS.

ATTACHED PAGES:

Encl. 2	3/4 6-10
Encl. 3A	6
Encl. 3B	5

03.6.0-1
01-07-A
07-01-A

LIMITING CONDITION FOR OPERATION

3.6.1.7 One purge supply line and/or one purge exhaust line of the Containment Purge System may be open or the vacuum/pressure relief line may be open ~~. The vacuum/pressure relief line may be open~~ provided the vacuum/pressure relief isolation valves are blocked to prevent opening beyond 50° (90° is fully open). Operation with any two of these three lines open is permitted. ~~Operation with the purge supply and/or exhaust isolation valves open or with the vacuum/pressure relief isolation valves open up to 50° shall be limited to less than or equal to 200 hours during a calendar year.~~ 03.6.3-15 07-04-~~P~~ LG

APPLICABILITY: MODES 1, 2, 3, and 4. 11-02-A

ACTION: ** *** 03-13-A

~~With a containment purge supply and/or exhaust isolation valve open or the vacuum/pressure relief isolation valves open up to 50° for more than 200 hours during a calendar year or the Containment Purge System open and the vacuum/pressure relief lines open, or with the vacuum/pressure relief isolation valves open beyond 50°~~ With two containment purge supply or exhaust valves or two vacuum/pressure relief valves on the same penetration inoperable for reasons other than leakage, close the open isolation valve(s) or isolate the penetration(s) flowpath(s) within 1 hour; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. 07-04-~~P~~ LG 03.6.3-15 07-05-A 11-12-A

(new) One or more penetration flow paths with one or more containment purge or vacuum/pressure relief valves not within purge valve leakage limits. Within 24 hours isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange. Verify the affected penetration flow path is isolated once per 31 days for isolation devices outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment* and perform Surveillance 4.6.3.4 for the resilient seal purge valves closed to comply with this Required Action ~~E-1~~D.1, once per 92 days. 07-02-LS9 01-04-LS1 07-13-M 03.6.3-35

SURVEILLANCE REQUIREMENTS

4.6.1.7.1 The position of the containment purge supply and exhaust isolation valves and the vacuum/pressure relief isolation valves shall be determined closed at least once per 31 days ~~except for one valve in a penetration flow path while in action 3.6.1.7 for excessive leakage.~~ 07-03-A 03.6.3-5

~~4.6.1.7.2 The cumulative time that the purge supply and/or exhaust isolation valves or the vacuum/pressure relief isolation valves have been open during a calendar year shall be determined at least once per 7 days.~~ 07-04-~~P~~ LG 03.6.3-15

4.6.1.7.3 The 12-inch vacuum/pressure relief isolation valves shall be verified to be blocked to prevent opening beyond 50° at least ~~once per 18 months.~~ each REFUELING INTERVAL ED DC-ALL-001

* Isolation devices in high radiation areas may be verified by use of administrative means. 01-04-LS1

** Separate Condition entry is allowed for each penetration flow path. 11-02-A

*** Enter applicable Conditions and Required Actions of the "Containment" LCO when leakage results in exceeding the overall containment leakage rate. 03-13-A

CHANGE NUMBER	NSHC	DESCRIPTION
07-03	~~A~~ LS 26	Q3.6.3-5 A change [ ] consistent with NUREG-1431, SR 3.6.3.1, is added to provide an allowance for one isolation valve in a penetration flow path to be open when performing the Required Actions for leakage not within limits. This is actually a consistency change which goes with the revised Required Actions (see 07-02-LS9 above). The Required Action allows continued operation with leakage not in limits and this change to the SR allows a valve to be opened to repair the excessive leakage. This change is not applicable to DCPP. See Conversion Comparison Table (Encl. 3B).
07-04	~~R~~ LG	The time limit restrictions on opening the [containment purge supply and exhaust and pressure/vacuum relief flow paths] and the requirements to periodically accumulate the time that the valves have been open would be ~~relocated~~ moved to licensee controlled documents. Insert Q3.6.3-15
07-05	A	Consistent with NUREG-1431, an ACTION is added for two valves inoperable in one penetration flow path. The change is administrative since the CTS would have relied on LCO 3.0.3 which has essentially the same requirements. [CTS LCO 3.6.1.7 ACTION and] Q3.6.3-16
07-06	LS11	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-07	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-08	M	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-09	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
07-10	LS9	A Note is added to clarify that leakage rate testing is not required for containment purge valves with resilient seals when the penetration flow path is isolated by a leak tested blank flange. The purpose of the leak testing requirement is to ensure containment leakage integrity during an accident, and thereby limit accident consequences. Isolation of the flow path with a leak tested blind flange accomplishes this safety function and additional leak testing of the valves in the flow path is redundant and unnecessary.
07-11	LS25	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-01	LG	Consistent with NUREG-1431, the LCO references to suction flowpath and manual transfer of suction to containment sump have been deleted. These details are included within the OPERABILITY requirements of the containment spray system (CSS) (as required by CTS 4.6.2.1 and as further described in the Bases). There is no technical change resulting from this deletion.
07-13	M	Insert Q3.6.3-35

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
07-06 LS11	The leakage rate testing frequency for containment isolation valves with resilient seals is revised to 184 days and testing on a staggered test basis is no longer required. A new requirement is also added to perform a leakage test within 92 days of opening the valves.	No, see 11-13-LS22.	Yes	Yes	Yes
07-07 LG	The leakage rate test acceptance criteria for containment isolation valves with resilient seals is moved to the Bases.	No, criteria already moved from CTS.	Yes	Yes	Yes
07-08 M	Adds new requirement to perform a 31 day surveillance to verify closure of the 18-inch the mini-purge valve.	No, CTS already contains this requirement.	No, CPSES does not have restrictions on these valves.	Yes	Yes
07-09 LG	Details regarding the valve size and isolation requirements have been moved to the ITS Bases.	No, this detail is not in the CTS.	No, this detail is not in the CTS.	Yes	Yes
07-10 LS9	A note is added to clarify that leakage rate testing is not required for containment purge valves with resilient seals when the penetration flow path is isolated by a leak tested blank flange.	Yes	Yes	Yes	Yes
07-11 LS25	Removes the requirement to blank flange the containment shutdown purge supply and exhaust isolation valves and revises the SR for verification of closed shutdown purge valves and flanges inside containment.	No, CTS does not contain this requirement.	No, CTS does not contain this requirement.	Yes	Yes
08-01 LG	The LCO references to suction flow path and manual transfer of suction to containment sump have been deleted. These details are included within the OPERABILITY requirements of the CSS as described in the Bases.	Yes	Yes	Yes	Yes

07-13 M (Insert) @3.6.3-35

Encl 3A - page 6

7-13	M	This change adds verification requirements for the containment purge supply and exhaust valves to CTS 3.6.1.7 ACTIONS []. The required actions for inoperable containment ventilation isolation valve(s) (CIV) are revised to verify the penetration flow path isolated once per 31 days for isolation devices outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment. This is an option not explicitly available in the current TS. These verifications result in the addition of ACTIONS to the CTS. The addition of these more stringent requirements is consistent with NUREG-1431.

Encl 3B - page 5

07-13-M - This change adds verification requirements for the containment purge supply and exhaust valves to CTS 3.6.1.7 ACTIONS []. The required actions for inoperable containment ventilation isolation valve(s) (CIV) are revised to verify the penetration flow path isolated once per 31 days for isolation devices outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment

Applicability	
DCPP	Yes
CSES	Yes
WC	Yes
CA	Yes

ADDITIONAL INFORMATION NO: Q 3.6.3-38 **APPLICABILITY:** DC

REQUEST:

CTS 4.6.3.4
ITS SR 3.6.1.1 and Associated Bases
ITS SR 3.6.3.7 and Associated Bases

DCPP CTS 4.6.3.4 verifies the leakage rates for each containment ventilation isolation valve in accordance with the Containment Leakage Rate Testing Program, except for the air sample supply and return valves. The wording of CTS 4.6.3.4 implies that the air sample supply and return valves are part of the Containment Ventilation System, yet no description of these valves can be found in the Bases for ITS 3.6.3. In addition, two other implications can be deduced from the wording of CTS 4.6.3.4. Since CTS 4.6.3.4 is converted to ITS SR 3.6.3.7 it is implied that the air sample valves do not have resilient seals. It can also be implied that the air sample valves are exempt from all leakage test requirements of 10 CFR 50 Appendix J. However, this exemption is not listed in CTS 6.8.4.j/ITS 5.5.16. or ITS SR 3.6.1.1 and its associated Bases.

Comment: Provide the following:

a. Revise ITS B3.6.3 Bases to provide a description of the Containment Ventilation System air sample valves.

b. Indicate whether these valves have resilient seals.

c. Provide a discussion on whether these valves are exempt from just the leakage tests for resilient seals or all Appendix J leakage tests. Provide the reference in which the staff approved the exemption.

d. If they are exempt from all Appendix J tests, revise the CTS/ITS markups of CTS4.6.3.4, ITS 5.5.16 and ITS B3.6.1 Bases SR 3.6.1.1 to show that the exemption is being relocated from CTS 4.6.3.4 to at least ITS 5.5.16 and possibly ITS B3.6.1 Bases SR 3.6.1.1 in accordance with the 11/2/95 letter to NEI on Appendix J Option B and TSTF-52 as modified by the staff. Provide the appropriate discussions and justifications for this change.

FLOG RESPONSE: No changes. The ITS SR 3.6.3.7 expression "...valves with resilient seals..." provides the same exemption that the CTS SR 4.6.3.4 expression "...except the air sample supply and return valves..." does. The CTS does not contain the concept of "resilient seals," rather it used system function (containment ventilation isolation valves) to identify them. The air supply and return valves are not resilient seated and do not provide a direct path to the environment, but they do receive the containment ventilation isolation signal. For these reasons they were exempt from the 24 hours and at least every 72 hours leak testing after opening requirement of CTS SR 4.6.3.4. This was intended to eliminate any possible confusion that these valves might be subject to the resilient seat leak testing requirements rather then containment isolation valve Type C leak testing. The air supply and return valves are classified

as containment isolation valves and are Type C leak tested in accordance with 10 CFR 50, Appendix J, Option B.

ATTACHED PAGES:

None

For Information Only Pages:

Encl 2	3/4 6-16
Encl 5A	3.6-14

SURVEILLANCE REQUIREMENTS (Continued)

Q3.6.3-9
Q3.6.3-8

power operated

4.6.3.3 The isolation time of each testable ~~power operated or~~ automatic containment isolation valve that is not locked, sealed, or otherwise secured shall be determined to be within its limit when tested pursuant to ~~Specification 4.0.5~~ the Inservice Testing Program.

~~11-07-LG~~
11-09-A
11-14-A
Q3.6.3-12

4.6.3.4 Each containment ventilation isolation valve, except the air sample supply and return valves, shall be demonstrated OPERABLE every 184 days and within ~~24 hours~~ 92 days after ~~each closing of~~ opening the valve, ~~except when the valve is being used for multiple cycling, then at least once per 72 hours~~, by verifying leakage rates in accordance with the Containment Leakage Rate Testing Program. This surveillance is not required when the penetration flow path is isolated by a leak tested blank flange.

11-13-LS22
07-10-LS9
11-19-M
Q3.6.3-18

SURVEILLANCE REQUIREMENTS (Continued)

SURVEILLANCE		FREQUENCY
SR 3.6.3.7	----------NOTE---------- This surveillance is not required when the penetration flow path is isolated by a leak tested blank flange. ---------- Perform leakage rate testing for containment purge supply and exhaust and vacuum/pressure relief valves with resilient seals in accordance with the Containment Leakage Rate Testing Program.	3.6-13 184 days AND Within 92 days after opening the valve 3.6-17
SR 3.6.3.8	Verify each automatic containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.	~~18~~ 24 months DC-ALL-001
SR 3.6.3.9	NOT USED ~~Cycle each weight or spring loaded check valve not testable during operation through one complete cycle of full travel, and verify each check valve remains closed when the differential pressure in the direction of flow is ≤ [1.2] psid and opens when the differential pressure in the direction of flow is ≥ [1.2] psid and ≤ [5.0] psid.~~	~~18 months~~ B-PS
SR 3.6.3.10	Verify each 12 inch containment ~~purge valve~~ vacuum/pressure relief valve is blocked to restrict the valve from opening > 50%.	~~18~~ 24 months DC-ALL-001 B-PS

(continued)

ADDITIONAL INFORMATION NO: Q 3.6.3-39 **APPLICABILITY:** DC

REQUEST:

ITS SR 3.6.3.10 and Associated Bases

DCPP ITS SR 3.6.3.10 verifies that each 12 inch containment vacuum/pressure relief valve is blocked to restrict the valve from opening >50 to ensure that the valves will close within the times assumed in the safety analyses. DCPP ITS B3.6.3 Bases-BACKGROUND states the following for the Containment Purge System: "The 48 inch Containment Purge valves are qualified for automatic closure from their open position under DBA conditions. Therefore, the 48 inch Containment Purge supply and exhaust isolation valves must be blocked to prevent opening more than 80 in MODES 1, 2, 3 and 4 to ensure closure within 2 seconds under DBA conditions (in order to support the required containment ventilation isolation time) and to ensure that the containment boundary is maintained." Based on this statement and a similar statement in ITS B3.6.3 Bases - LCO, the staff requires that a surveillance similar to ITS SR 3.6.3.10 for the 48 inch containment purge valves be included in the ITS to ensure that facility operation will be within safety limits.

Comment: Revise the CTS/ITS markup to include a SR similar to ITS SR 3.6.3.10 for the 48 inch containment purge valves, and provide the appropriate discussions and justifications for this change.

FLOG RESPONSE: The bases for the current license come from SSER 9, para. 6.2.3 (June 1980) which required a 50° block on the 12 inch vacuum/pressure relief valves. No requirement for the 80° block has ever been present in the DCPP license. The 80° limit is an administrative limit resulting from the actual value used in the design calculations and was added to the ITS Bases to better describe the system for operations personnel. It does not represent a licensing basis, and therefore the ITS LCO 3.6.3 Bases, BACKGROUND for the Containment Purge System (48 inch purge valves), has been revised to delete the 80° limit .

ATTACHED PAGES:

Encl 5B B3.6-12

For Information Only Pages:

Encl 5A 3.6-14
Encl 5B B3.6-25

BASES

BACKGROUND (Continued)

personnel access. The supply and exhaust lines each contain two isolation valves. ~~Because of their large size, t~~ The ~~48~~ inch Containment Purge valves ~~in some units~~ are ~~not~~ qualified for automatic closure from their open position under DBA conditions. Therefore, the ~~48~~ inch Containment Purge supply and exhaust isolation valves ~~are normally maintained closed must be blocked to prevent opening more than 60°~~ in MODES 1, 2, 3, and 4 ~~to~~ ensure closure within 2 seconds under DBA conditions ~~(in order to support the required containment ventilation isolation time)~~ and ~~to~~ ensure that the containment boundary is maintained. These valves may be opened as necessary to:

B3.6.3-39

a. Reduce noble gases within containment prior to and during personnel access, and

b. Mitigate the effects of controller leakage and other sources which may effect the habitability of the containment for personnel entry.

Operation in MODES 1, 2, 3, or 4 with the 48-inch purge valves or the 12-inch vacuum/pressure relief valves open providing a flow path is limited to no more than 200 hours per calendar year.

~~Hydrogen Purge System (12-4-inch purge valves)~~

~~The Hydrogen Purge System is a supplementary system for the internal electric hydrogen recombiners and operated for hydrogen dilution or external hydrogen recombiners in for the containment following a LOCA. Because the 12-4-inch Containment Hydrogen Purge supply and exhaust valves are remote manually operated not qualified for automatic closure from their open position under DBA conditions, they are normally maintained closed with power removed in MODES 1, 2, 3, and 4 to ensure the containment boundary is maintained.~~

~~Minipurge System~~ Containment Pressure/Vacuum Relief (~~18~~ 12 inch ~~purge discharge~~ isolation valves)

The ~~Minipurge System~~ Containment Pressure/Vacuum Relief valves are operated as necessary to:

a. Reduce the concentration of noble gases within containment prior to and during personnel access, and

~~b.~~ equalize containment internal and external pressures.

Since the ~~18~~ 12 inch Containment Pressure/Vacuum Relief valves ~~used in the Minipurge System~~ are designed to meet the requirements for automatic containment isolation ~~valves~~ within 5 seconds if mechanical blocks are installed to prevent opening more then 50°, these valves may be opened as needed in MODES 1, 2, 3, and 4.

(Continued)

SURVEILLANCE REQUIREMENTS (Continued)

SURVEILLANCE		FREQUENCY
SR 3.6.3.7	----------NOTE---------- This surveillance is not required when the penetration flow path is isolated by a leak tested blank flange. ---------- Perform leakage rate testing for containment purge supply and exhaust and vacuum/pressure relief valves with resilient seals in accordance with the Containment Leakage Rate Testing Program.	3.6-13 184 days AND Within 92 days after opening the valve 3.6-17
SR 3.6.3.8	Verify each automatic containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.	~~18~~ 24 months DC-ALL-001
SR 3.6.3.9	NOT USED ~~Cycle each weight or spring-loaded check valve not testable during operation through one complete cycle of full travel, and verify each check valve remains closed when the differential pressure in the direction of flow is ≤ [1.2] psid and opens when the differential pressure in the direction of flow is ≥ [1.2] psid and ≤ [5.0] psid.~~	~~18 months~~ B-PS
SR 3.6.3.10	Verify each 12 inch containment ~~purge valve~~ vacuum/pressure relief valve is blocked to restrict the valve from opening > 50%.	~~18~~ 24 months DC-ALL-001 B-PS

(continued)

BASES

SR 3.6.3.8

Automatic containment isolation valves close on a Containment isolation (Phase A, Phase B, or CVI) signal to prevent leakage of radioactive material from containment following a DBA. This SR ensures that each automatic ~~containment isolation~~ valve will actuate to its isolation position on a containment isolation signal. This surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The ~~18~~ 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass this Surveillance when performed at the ~~18~~ 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint. DC-ALL-001 DC-ALL-001 φ3.6.0-2

SR 3.6.3.9 Not Used

~~In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.9 verifies the operation of the check valves that are not testable during unit operation. The Frequency of 18 months is based on such factors as the inaccessibility of these valves, the fact that the unit must be shut down to perform the tests, and the successful results of the tests on an 18 month basis during past unit operation.~~

SR 3.6.3.10

~~Reviewer's Note: This SR is only required for those units with resilient seal purge valves allowed to be open during [MODE 1, 2, 3, or 4] and having blocking devices on the valves that are not permanently installed.~~

Verifying that each ~~[42]~~ 12 inch containment ~~purge~~ pressure/vacuum relief valve is blocked to restrict opening to ~~≤ [50]%~~ 50° is required to ensure that the valves can close under DBA conditions within the times assumed in the analyses of References 1 and 2. If a LOCA occurs, the ~~purge~~ containment pressure/vacuum relief valves must close to maintain containment leakage within the values assumed in the accident analysis. ~~At other times when purge valves are required to be capable of closing (e.g., during movement of recently irradiated fuel assemblies), pressurization concerns are not present, thus the purge valves can be fully open.~~ The ~~18~~ 24 month Frequency is appropriate because the blocking devices are not typically removed ~~only during a refueling outage~~ except during maintenance. DC-ALL-001

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.3-40 **APPLICABILITY:** DC, CA

REQUEST:

STS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES
ITS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES

The third paragraph of STS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES describes the DBA analysis assumptions with regards to containment isolation - response times and what is included in the total response time. This paragraph is deleted in ITS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES. Since ITS changes to the STS Bases were made based on changes to the STS, on plant specific system design, or on current licensing basis as specified in the CTS, with the exception of the specific response time, the deletion of the paragraph does not seem to fall into any of these categories. The staff believes that this paragraph provides useful information necessary for the understanding of the ITS.

Comment: Retain this paragraph modified by plant specific information or provide a discussion to justify its deletion.

FLOG RESPONSE: The paragraph was deleted because it implies that the 60 second isolation time is a specific assumption in the DBA dose analysis. The paragraph was replaced with the sentence immediately following that paragraph which contains the applicable plant specific assumption. It is obvious that for the assumed leakage to be achieved, containment isolation must occur in some reasonable length of time. Hence, it is true that containment isolation is inherently assumed in the dose analysis. The paragraph will be reinstated, but the discussion of the 60 second isolation time will not be included since this time is not a specific assumption in the DBA dose analysis. The reinstated paragraph will read: "The DBA analysis assumes that containment isolation occurs and leakage is prevented except for the design leakage rate, L_a."

Callaway will retain the third paragraph of STS B 3.6.3 Applicable Safety Analysis which describes the DBA assumption response times.

ATTACHED PAGES:

Encl 5B B3.6-14

BASES

The DBA analysis assumes that containment isolation occurs and leakage is prevented except for the design leakage rate, La.

APPLICABLE SAFETY ANALYSES (continued)

P3.6.3-40

~~The DBA analysis assumes that, within 60 seconds after the accident, isolation of the containment is complete and leakage terminated except for the design leakage rate, La. The containment isolation total response time of 60 seconds includes signal delay, diesel generator startup (for loss of offsite power), and containment isolation valve stroke times.~~

The LOCA offsite dose analysis assumes leakage from the containment at a maximum leak rate of 0.10 percent of the containment volume per day for the first 24 hours, and at 0.05 percent of the containment volume per day for the duration of the accident. ~~The Containment Purge supply and exhaust and the Containment Pressure Relief penetration are the only flow paths explicitly addressed in the dose analysis, since it provides a direct activity release path from the containment to the environment. It is assumed to isolate within 5 seconds of receiving a containment isolation signal.~~

The single failure criterion required to be imposed in the conduct of plant safety analyses was considered in the original design of the 48 inch Containment Purge supply and exhaust and the ~~18~~ 12 inch ~~containment purge~~ Containment Pressure/Vacuum Relief valves. Two valves in series ~~on each purge line~~ provide assurance that ~~both~~ the ~~supply and exhaust line s could~~ flow paths can be isolated even if a single failure occurred. The inboard and outboard isolation valves ~~on each line~~ are provided with diverse power sources~~, motor operated~~ and are pneumatically operated spring closed~~, respectively~~ valves that will fail closed on the loss of power or air. ~~This arrangement was designed to preclude common mode failures from disabling both valves on a purge line.~~

The 48 inch Containment Purge supply and exhaust and 12 inch ~~Hydrogen Purge~~ Containment Pressure/Vacuum Relief valves ~~may be unable~~ are able to close in the environment following a LOCA. Therefore, each of the Containment Purge supply and exhaust and ~~Hydrogen Purge~~ Containment Vacuum/Pressure Relief valves ~~is required to remain sealed closed~~ may be opened to provide a flow path. The 48 inch Containment Purge supply and exhaust valves and/or 12-inch vacuum/pressure relief valves may be open no more then 200 hours per calendar year while in ~~during~~ MODES 1, 2, 3, and 4. ~~In this case, the single failure criterion remains applicable to the containment purge valves due to failure in the control circuit associated with each valve. Again, The Purge~~ Additionally, only two of the three flow paths (containment purge supply and exhaust, and containment vacuum/pressure relief) may be open at one time. The system ~~valve design~~ is designed to preclude a single failure from compromising the containment boundary as long as the system is operated in accordance with the subject LCO.

No change P3.6.3-41

The containment isolation valves satisfy Criterion 3 of ~~the NRC Policy Statement~~ 10CFR50.36(c)(2)(ii).

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.3-41 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

STS B3.6.3 Bases -APPLICABLE SAFETY ANALYSES
ITS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES

The second from last paragraph in STS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES contains the following sentence: "In this case, the single failure criterion remains applicable to the containment purge valves due to failure in the control circuit associated with each valve." This sentence is deleted in ITS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES. Since ITS Changes to the STS Bases were made based on changes to the STS, on plant specific system design, or on current licensing basis as specified in the CTS, the deletion does not seem to fall into any of these categories. The Staff believes that this statement provides useful information necessary for the understanding of the ITS.

Comment: Retain the deleted sentence or provide a discussion justifying its deletion.

FLOG RESPONSE: The paragraph in NUREG-1431 containing this sentence is in brackets indicating plant specific information may be inserted.

Plant Specific Discussion

For Diablo Canyon, since the subject valves are environmentally qualified for post-accident conditions and are not required to be sealed during power operation, this paragraph is not applicable, and was appropriately modified to make it plant specific.

ATTACHED PAGES:

Encl 5B B3.6-14 (indicates no change)

BASES

The DBA analysis assumes that containment isolation occurs and leakage is prevented except for the design leakage rate, La.

APPLICABLE SAFETY ANALYSES (continued)

P3.6.3-40

~~The DBA analysis assumes that, within 60 seconds after the accident, isolation of the containment is complete and leakage terminated except for the design leakage rate, L. The containment isolation total response time of 60 seconds includes signal delay, diesel generator startup (for loss of offsite power), and containment isolation valve stroke times.~~

The LOCA offsite dose analysis assumes leakage from the containment at a maximum leak rate of 0.10 percent of the containment volume per day for the first 24 hours, and at 0.05 percent of the containment volume per day for the duration of the accident. ~~The Containment Purge supply and exhaust and the Containment Pressure Relief penetration are the only flow paths explicitly addressed in the dose analysis, since it provides a direct activity release path from the containment to the environment. It is assumed to isolate within 5 seconds of receiving a containment isolation signal.~~

The single failure criterion required to be imposed in the conduct of plant safety analyses was considered in the original design of the 48 inch Containment Purge supply and exhaust and the ~~18~~ 12 inch ~~containment purge~~ Containment Pressure/Vacuum Relief valves. Two valves in series ~~on each purge line~~ provide assurance that ~~both~~ the ~~supply and exhaust lines could~~ flow paths can be isolated even if a single failure occurred. The inboard and outboard isolation valves ~~on each line~~ are provided with diverse power sources~~, motor operated~~ and are pneumatically operated spring closed~~, respectively~~ valves that will fail closed on the loss of power or air. ~~This arrangement was designed to preclude common mode failures from disabling both valves on a purge line.~~

The 48 inch Containment Purge supply and exhaust and 12 inch ~~Hydrogen Purge~~ Containment Pressure/Vacuum Relief valves ~~may be unable~~ are able to close in the environment following a LOCA. Therefore, each of the Containment Purge supply and exhaust and ~~Hydrogen Purge~~ Containment Vacuum/Pressure Relief valves ~~is required to remain sealed closed~~ may be opened to provide a flow path. The 48 inch Containment Purge supply and exhaust valves and/or 12-inch vacuum/pressure relief valves may be open no more then 200 hours per calendar year while in ~~during~~ MODES 1, 2, 3, and 4. ~~In this case, the single failure criterion remains applicable to the containment purge valves due to failure in the control circuit associated with each valve. Again, The Purge~~ Additionally, only two of the three flow paths (containment purge supply and exhaust, and containment vacuum/pressure relief) may be open at one time. The system ~~valve design~~ is designed to preclude a single failure from compromising the containment boundary as long as the system is operated in accordance with the subject LCO.

No change P3.6.3-41

The containment isolation valves satisfy Criterion 3 of ~~the NRC Policy Statement~~ 10CFR50.36(c)(2)(ii).

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.3-42 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

STS B3.6.3 Bases - LCO
ITS B3.6.3 Bases - LCO and REFERENCES

The third paragraph of STS B3.6.3 Bases - LCO deals with those containment isolation valves that are required to be closed during an accident and are in the closed position during normal operation. The last sentence in this paragraph states that these passive isolation valves/devices are listed in a plant specific document(s). This sentence has been deleted from ITS B3.6.3 Bases - LCO. Since ITS changes to the STS Bases were made based on changes to the STS, on plant specific system design, or on current licensing basis as specified in the CTS, the deletion does not seem to fall into any of these categories. This statement directs the operator/inspector to those documents which list these passive devices similar to the document that lists the automatic valves. The staff requires that this statement be retained.

Comment: Revise the ITS markup to retain this statement modified to include specific plant documents containing the listing of the passive isolation valves/devices or if the listing of the document is extensive, a general description of the type of documents.

FLOG RESPONSE: The ITS Bases markup is revised to reference the plant specific document(s) containing the listing of passive isolation valves.

ATTACHED PAGES:

Encl 5B B 3.6-15

BASES (Continued)

LCO

Containment isolation valves form a part of the containment boundary. The containment isolation valves' safety function is related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during a DBA. The automatic power operated isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The 48 inch Containment Purge supply and exhaust ~~and 12 inch Hydrogen Purge~~ valves and the Pressure/Vacuum Relief valves must ~~be maintained sealed closed [or~~ have blocks installed to prevent full opening~~]~~. ~~[~~ These blocked ~~purge~~ valves also actuate on an automatic isolation signal. ~~]~~ The valves covered by this LCO are listed along with their associated stroke times in ~~the FSAR Technical Requirements Manual~~ Plant Procedure AD13 DC1 ~~Attachment 7.10~~ (Ref. ~~2~~ 5). DC 36-ED

~~The~~ Normally closed passive containment isolation valves/devices are considered OPERABLE when manual valves are closed, automatic valves are de-activated and secured in their closed position, blind flanges are in place, and closed systems are intact ~~These passive isolation valves/devices are those listed in Reference 5~~ → remove strike-out
Q3.6.3-42

Containment Purge supply and exhaust valves, ~~Hydrogen Purge,~~ and Containment Pressure/Vacuum Relief valves with resilient seals ~~[and secondary containment bypass valves]~~ must meet additional leakage rate surveillance frequency requirements. The other containment isolation valve leakage rates are addressed by LCO 3.6.1, "Containment," ~~as Type C testing~~.

This LCO provides assurance that the containment isolation valves ~~and the Containment Purge supply and exhaust, Hydrogen Purge, and Containment Pressure/Vacuum Relief purge valves~~ will perform their designed safety function to minimize the loss of reactor coolant inventory and establish the containment boundary during accidents.

The LCO is modified by a Note stating that the Main Steam Safety Valves, Main Steam Isolation Valves, Feedwater Isolation Valves, and Atmospheric Dump Valves are not addressed in this LCO. These penetration flow paths credit the steam generators and piping inside containment as a containment isolation barrier (i.e., closed system). These valves are addressed by LCO 3.7.1 "Main Steam Safety Valves (MSSVs)", LCO 3.7.2 "Main Steam Isolation Valves (MSIVs)", LCO 3.7.3 "Main Feedwater Isolation Valves (MFIVs), ~~Main Feedwater Regulating Valves (MFRVs), and Associated Bypass Valves~~", and LCO 3.7.4 "Atmospheric Dump Valves (ADVs)" which provide the appropriate Required Actions in the event these valves are inoperable. Insert
Q3.6.3-10

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES.

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.3-43 **APPLICABILITY:** DC, CP

REQUEST:

STS B3.6.3 Bases - LCO
ITS B3.6.3 Bases - LCO

The fifth paragraph of STS B3.6.3 Bases - LCO states the following: "This LCO provides assurance that the containment isolation valves and the purge valves will perform their design safety functions..." ITS B3.6.3 Bases - LCO deletes the words "and purge valves" from this sentence. Since ITS changes to the STS Bases were made based on changes to the STS, on plant specific system design, or on current licensing basis as specified in the CTS, the deletion does not seem to fall into any of these categories. In addition, the staff believes the change is a potential generic change.

Comment: Delete this change.

FLOG RESPONSE: CPSES has three kinds of valves that fit the ITS category of "purge" valves (described in CTS 3.6.1.7): containment purge supply and exhaust isolation valves, hydrogen purge supply and exhaust isolation valves, and the containment pressure relief discharge isolation valves. Since the containment pressure relief discharge isolation valves do not contain the word "purge" in their name and since all three categories are containment isolation valves, deletion of the word "purge" was considered a clarification to ensure that the containment pressure relief discharge isolation valves were not excluded. To further clarify the applicable "purge" valves, the Bases is revised to specifically include the containment purge valves, hydrogen purge valves, and the containment pressure relief valves.

For DCPP, both the CTS and the STS and ITS LCO make no distinction between containment isolation valves and purge valves. The scope of containment isolation valves governed by both the DCPP CTS and the STS and ITS LCO already includes purge valves. If containment isolation valves must be OPERABLE, then so must purge valves since they <u>are</u> containment isolation valves. DCPP believes that the separate distinction of purge valves in this sentence in the ITS Bases is confusing and misleading because it can give the impression that purge valves are somehow <u>not</u> containment isolation valves, and hence require separate mention. Either all the different types of containment isolation valves should be mentioned in this sentence or none of them. Not specifically mentioning the purge valves in this sentence certainly could not be considered to be a generic change. The wording of the 3.6.3 LCOs on containment isolation valves in the CTS and ITS are identical. There is no implication anywhere that it does not apply to purge valves. Not mentioning purge valves separately in the ITS Bases sentence could not possibly be construed to imply that the LCO does not apply to purge valves, any more that it could be construed to imply that it does not apply to other types of containment isolation valves that are not specifically mentioned. To avoid the possible source of confusion raised by separately distinguishing purge valves in the subject ITS Bases sentence, and because it is unnecessary and redundant to do so, DCPP prefers to delete the phrase "and purge valves" from the sentence.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.3-44 **APPLICABILITY:** DC

REQUEST:

STS B3.6.3 Bases - ACTIONS
ITS B3.6.3 Bases - ACTIONS

The first sentence in the first paragraph of STS B3.6.3 Bases - ACTIONS states the following: "The ACTIONS are modified by a Note allowing penetration flow paths, except for [42] purge valve penetration flow path, to be unisolated intermittently under administrative controls." DCPP ITS B3.6.3 Bases - ACTIONS modifies this sentence to limit the penetration flow paths to those that are normally isolated by locked or sealed closed valves or valves that do not receive a containment isolation signal. The intent of the STS Note is to allow any closed containment isolation valve except certain purge valves to be opened under administrative controls which may be Less Restrictive than current requirements. The CTS/ITS markup and CTS DOCs indicate that the STS ACTIONS Note 1 was being implemented as modified by the plant specific purge valve opening limitation of CTS 3.6.1.7, and was not being limited as specified by the ITS Bases discussion. If it is DCPP's intent to limit the extent of ITS 3.6.3 ACTIONS Note 1 as specified in the Bases discussion, then the Note itself, the CTS markup and associated DOCs need to be modified. If that is not DCPP's intent then the STS Bases wording should be used as modified by the limitation specified in CTS 3.6.1.7.

Comment: Revise the CTS/ITS markup of STS 3.6.3 ACTIONS Note 1 to reflect either DCPP's intent as specified in the ITS Bases discussion or the STS intent as modified by the limits of CTS 3.6.1.7. Provide additional discussions and justifications as necessary.

FLOG RESPONSE: DCPP is revising the ITS B 3.6.3 Bases - ACTIONS first paragraph to reflect the ITS 3.6.3 ACTIONS Note 1. This will be accomplished by using the STS Bases wording as modified by CTS 3.6.1.7 (retain strike out of ", except for 48 inch purge valve penetration flow path,"). The Bases text will read:

"The ACTIONS are modified by a Note allowing penetration flow paths to be unisolated intermittently under administrative controls. The intended scope of this Note is penetrations that are normally isolated by locked or sealed closed valves or valves that do not receive a containment isolation signal. These administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for containment isolation is indicated."

ATTACHED PAGES:

Encl 5B B3.6-16

APPLICABILITY (continued) Therefore, the containment isolation valves are not required to be OPERABLE in MODE 5. The requirements for containment isolation valves during MODE 6 are addressed in LCO 3.9.4, "Containment Penetrations."

ACTIONS

Insert Q3.6.3-44

The ACTIONS are modified by a Note allowing penetration flow paths that are normally isolated by locked or sealed closed valves or valves that do not receive a containment isolation signal, ~~except for 48 inch Containment Purge and 12 inch Hydrogen Purge valve penetration flow paths,~~ to be unisolated intermittently under administrative controls. These administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for containment isolation is indicated. ~~Due to the size of the containment purge line penetration and the fact that the 48 inch Containment Purge and the 12 inch Hydrogen Purge supply and exhaust valves are not qualified for automatic closure from their open position under DBA conditions and that those penetrations exhaust directly from the containment atmosphere to the environment, the penetration flow path containing these valves may not be opened under administrative controls. A single valve in either the 48 inch Containment Purge or the 12 inch Hydrogen Purge a penetration flow path may be opened to effect repairs to an inoperable valve, as allowed by SR 3.6.3.1.~~ This Note also limits operation of the normally isolated Containment Supply and Exhaust valves (2 penetration flow paths) and the Vacuum/Pressure Relief valves (1 penetration flow path) to no more than 2 of 3 penetration flow paths open at one time.

~~purge~~ Q3.6.0-2

A second Note has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each penetration flow path. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable containment isolation valve. Complying with the Required Actions may allow for continued operation, and subsequent inoperable containment isolation valves are governed by subsequent Condition entry and application of associated Required Actions.

The ACTIONS are further modified by a third Note, which ensures appropriate remedial actions are taken, if necessary, if the affected systems are rendered inoperable by an inoperable containment isolation valve.

In the event the ~~air lock~~ containment isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria, Note 4 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1.

A.1 and A.2

(Continued)

ITS B3.6.3 - ACTIONS (page B3.6-16)

The ACTIONS are modified by a Note allowing penetration flow paths to be unisolated intermittently under administrative controls. The intended scope of this Note is penetrations that are normally isolated by locked or sealed closed valves or valves that do not receive a containment isolation signal.

ADDITIONAL INFORMATION NO: Q 3.6.3-48 **APPLICABILITY:** DC

REQUEST:

STS B3.6.3 Bases - A.1 and A.2
STS B3.6.3 Basis-B.1
STS B3.6.3 Basis-C.1 and C.2
ITS B3.6.3 Bases - A.1 and A.2
ITS B3.6.3 Bases- B.1
ITS B3.6.3 Bases- C.1 and C.2

The first sentence in STS B3.6.3 Bases - A.1 and A.2 states the following: "In the event one containment isolation valve in one or more penetration flow paths is inoperable [except for purge valve or shield building leakage not within limit,] the affected penetration flow path must be isolated." DCPP ITS B3.6.3 Bases A.1 and A.2 modifies this sentence as follows: adds the words "requiring isolation following a DBA" after "one or more penetration flow paths," and deletes reference to purge valve and shield building leakage not within limits. ITS B3.6.3 Bases-B.1 and ITS B3.6.3 Bases-C.1 and C.2 make the same addition - requiring isolation following a DBA - to their first sentence. While the deletion of shield building leakage is acceptable, the other two changes change the meaning and intent of the statements. The addition of the words "requiring isolation following a DBA" to the Bases for A.1 and A.2, B.1, and C.1 and C.2 could be interpreted to limit the Condition to only automatic valves or only those valves required to be closed and not inoperable containment isolation valves that are required to remain open following a DBA. The latter valves have two safety functions, one to remain open in an accident situation and the other an isolation function when required to be closed. The second change - deletion - deletion of purge valve leakage exception - makes the statement inconsistent with ITS 3.6.3 Condition A which exempts purge valves inoperable due to leakage. The intent of the Condition is that it applies to all containment isolation valves except purge valves declared inoperable due to leakage not within limits.

Comment: Delete these changes.

FLOG RESPONSE: The ITS Bases for DCPP is revised to include the parenthetical statement "(except for Containment Purge supply and exhaust valves and Containment Pressure/Vacuum Relief valves)." The discussion in the Bases for Action D covers the excepted valves.

In the phrase "requiring isolation following a DBA," the word "DBA" is changed to "LOCA." This phrase was added because the sentence indicates that the affected flow path must be isolated. Flow paths that must remain open to perform a safety function following a LOCA should not be isolated since that would create an unsafe condition by disabling one train of a system required for accident mitigation. This situation is covered by Note 3 of the Action statement, which states: "Enter applicable Conditions and Required Actions for systems made inoperable by containment isolation valves." If a valve that happens to be a containment isolation valve by virtue of its position in a piping system, but which must remain open following a LOCA, becomes inoperable, the appropriate action statement to be entered is the one for the system

requiring operability of the valve to perform its safety function, not the containment isolation valve Action statement. Since the subject condition is already addressed by Note 3 of the Action statement, and since isolating the penetration would create an unsafe condition, PG&E believes that inclusion of the phrase "requiring isolation following a DBA" or an equivalent phrase is appropriate and necessary for clarification to prevent creation of an unsafe condition.

ATTACHED PAGES:

Encl 5B B3.6-17

For information only pages:

Encl 5B B3.6-16, 18, and 19

APPLICABILITY (continued) Therefore, the containment isolation valves are not required to be OPERABLE in MODE 5. The requirements for containment isolation valves during MODE 6 are addressed in LCO 3.9.4, "Containment Penetrations."

ACTIONS

Insert Q3.6.3-44

The ACTIONS are modified by a Note allowing penetration flow paths that are normally isolated by locked or sealed closed valves or valves that do not receive a containment isolation signal, ~~except for 48 inch Containment Purge and 12 inch Hydrogen Purge valve penetration flow paths,~~ to be unisolated intermittently under administrative controls. These administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for containment isolation is indicated. ~~Due to the size of the containment purge line penetration and the fact that the 48 inch Containment Purge and the 12 inch Hydrogen Purge supply and exhaust valves are not qualified for automatic closure from their open position under DBA conditions and that those penetrations exhaust directly from the containment atmosphere to the environment, the penetration flow path containing these valves may not be opened under administrative controls. A single valve in either the 48 inch Containment Purge or the 12 inch Hydrogen Purge a penetration flow path may be opened to effect repairs to an inoperable valve, as allowed by SR 3.6.3.1.~~ This Note also limits operation of the normally isolated Containment Supply and Exhaust valves (2 penetration flow paths) and the Vacuum/Pressure Relief valves (1 penetration flow path) to no more than 2 of 3 penetration flow paths open at one time.

~~purge~~ Q3.6.0-2

A second Note has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each penetration flow path. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable containment isolation valve. Complying with the Required Actions may allow for continued operation, and subsequent inoperable containment isolation valves are governed by subsequent Condition entry and application of associated Required Actions.

The ACTIONS are further modified by a third Note, which ensures appropriate remedial actions are taken, if necessary, if the affected systems are rendered inoperable by an inoperable containment isolation valve.

In the event the ~~air lock~~ containment isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria, Note 4 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1.

A.1 and A.2

(Continued)

BASES (Continued) Q3.6.3-48

retain strike-out

In the event one containment isolation valve in one or more penetration flow paths ~~requiring isolation following a DBA~~ is inoperable ~~[except for purge Containment Purge supply and exhaust, Hydrogen Purge and Containment Pressure/Vacuum Relief isolation valve or shield building bypass leakage not within limit],~~ the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated ~~automatic~~ ~~containment~~ isolation valve, a closed manual valve ~~(this includes power operated valves with power removed)~~, a blind flange, and a check valve with flow through the valve secured. For a penetration flow path isolated in accordance with Required Action A.1, the device used to isolate the penetration should be the closest available one to containment. Required Action A.1 must be completed within 4 hours. The 4 hour Completion Time is reasonable, considering the time required to isolate the penetration and the relative importance of supporting containment OPERABILITY during MODES 1, 2, 3, and 4.

remove strike-out

remove strike-out Q3.6.3-49

For affected penetration flow paths that cannot be restored to OPERABLE status within the 4 hour Completion Time and that have been isolated in accordance with Required Action A.1, the affected penetration flow paths must be verified to be isolated on a periodic basis. This is necessary to ensure that containment penetrations required to be isolated following an accident and no longer capable of being automatically isolated will be in the isolation position should an event occur. This Required Action does not require any testing or device manipulation. Rather, it involves verification ~~through a system walkdown,~~ that those isolation devices outside containment and capable of being mispositioned are in the correct position. The Completion Time of "once per 31 days for isolation devices outside containment" is appropriate considering the fact that the devices are operated under administrative controls and the probability of their misalignment is low. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

remove strike-out

which may include the use of local or remote indicators

Q3.6.3-52

Condition A has been modified by a Note indicating that this Condition is only applicable to those penetration flow paths with two containment isolation valves. For penetration flow paths with only one containment isolation valve and a closed system, Condition C provides the appropriate actions.

Required Action A.2 is modified by a Note 1 that applies to isolation devices located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these devices once they have been verified to be in the proper position, is small.

(Continued)

BASES (Continued)

A second Note has been added to Required Action A.2 to provide clarification that the action to periodically verify the affected penetration flow path is isolated does not apply to manual valves and blind flanges that are locked, sealed, or otherwise secured. This is acceptable since these were verified to be in the correct position prior to locking, sealing, or securing.

ACTIONS (continued)

B.1

With two containment isolation valves in one or more penetration flow paths requiring isolation following a DBA inoperable, the affected penetration flow path must be isolated within 1 hour. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve (this includes power operated valves with power removed), and a blind flange. The 1 hour Completion Time is consistent with the ACTIONS of LCO 3.6.1. In the event the affected penetration is isolated in accordance with Required Action B.1, the affected penetration must be verified to be isolated on a periodic basis per Required Action A.2, which remains in effect. This periodic verification is necessary to assure leak tightness of containment and that penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying each affected penetration flow path is isolated is appropriate considering the fact that the valves are operated under administrative control and the probability of their misalignment is low.

Condition B is modified by a Note indicating this Condition is only applicable to penetration flow paths with two containment isolation valves. Condition A of this LCO addresses the condition of one containment isolation valve inoperable in this type of penetration flow path.

C.1 and C.2

With one or more penetration flow paths requiring isolation following a DBA with one containment isolation valve inoperable, the inoperable valve flow path must be restored to OPERABLE status or the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual-valve (this includes power operated valves with power removed), and a blind flange. A check valve may not be used to isolate the affected penetration flow path. Required Action C.1 must be completed within the ~~[4]~~ 72 hour Completion Time. The specified time period is reasonable considering the relative stability of the closed system (hence, reliability) to act as a penetration isolation boundary and the relative importance of maintaining containment integrity during MODES 1, 2, 3, and 4 (See FSAR Table 6.2-39, GDC-57 valves). In the event the affected penetration flow path

(Continued)

BASES (Continued)

is isolated in accordance with Required Action C.1, the affected penetration flow path must be verified to be isolated on a periodic basis. This periodic verification is necessary to assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying that each affected penetration flow path is isolated is appropriate because the valves are operated under administrative controls and the probability of their misalignment is low.

Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. The closed system must meet the requirements of Reference 3. This Note is necessary since this Condition is written to specifically address those penetration flow paths in a closed system.

ACTIONS (continued)

Required Action C.2 is modified by a Note 1 that applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is small.

A second Note has been added to Required Action C.2 to provide clarification that the action to periodically verify the affected penetration flow path is isolated does not apply to manual valves and blind flanges that are locked, sealed, or otherwise secured. This is acceptable since these were verified to be in the correct position prior to locking, sealing, or securing.

~~D.1~~

~~With the shield building bypass leakage rate not within limit, the assumptions of the safety analyses are not met. Therefore, the leakage must be restored to within limit caused the limit to be exceeded by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. When a penetration is isolated the leakage rate for the isolated penetration is assumed to be the actual pathway leakage through the isolation device. If two isolation devices are used to isolate the penetration, the leakage rate is assumed to be the lesser actual pathway leakage of the two devices. The 4 hour Completion Time is reasonable considering the time required to restore the leakage by isolating the penetration(s) and the relative importance of secondary containment bypass leakage to the overall containment function.~~

~~E~~D.1, ~~E~~D.2, and ~~E~~D.3

In the event one or more Containment Purge Supply and exhaust, ~~Hydrogen Purge~~ or Containment Pressure/Vacuum Relief isolation valves in one or more penetration flow paths are not within ~~the purge valve~~ leakage limits, ~~purge valve~~ leakage must be

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.3-49 **APPLICABILITY:** DC, CA

REQUEST:

STS B3.6.3 Bases - A.1 and A.2
ITS B3.6.3 Bases - A.1 and A.2

The first paragraph of STS B3.6.3 Bases - A.1 and A.2 states the following: "Isolation barriers that meet this criterion are a closed and deactivated automatic containment isolation valve, a closed manual valve..." ITS B3.6.3 Bases - A.1 and A.2 deletes the words "automatic containment." While deletion of the word "containment" may be acceptable, the deletion of the word "automatic" changes the meaning and intent of the statement. It could be interpreted to mean that for manual valves the hand wheel must be removed. In addition, the deletion makes the statement inconsistent with the wording of ITS 3.6.3 RA A.1.

Comment: Delete the change.

FLOG RESPONSE: The ITS B3.6.3 Bases - ACTIONS A.1 and A.2 will be revised to include the word "automatic" in the first paragraph.

ATTACHED PAGES:

Encl 5B B 3.6-17

BASES (Continued) Q3.6.3-48

retain strike-out

In the event one containment isolation valve in one or more penetration flow paths requiring isolation following a DBA is inoperable ~~[except for purge Containment Purge supply and exhaust, Hydrogen Purge and Containment Pressure/Vacuum Relief isolation valve or shield building bypass leakage not within limit],~~ the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated ~~automatic~~ ~~containment~~ isolation valve, a closed manual valve ~~(this includes power operated valves with power removed)~~, a blind flange, and a check valve with flow through the valve secured. For a penetration flow path isolated in accordance with Required Action A.1, the device used to isolate the penetration should be the closest available one to containment. Required Action A.1 must be completed within 4 hours. The 4 hour Completion Time is reasonable, considering the time required to isolate the penetration and the relative importance of supporting containment OPERABILITY during MODES 1, 2, 3, and 4.

remove strike-out

remove strike-out Q3.6.3-49

For affected penetration flow paths that cannot be restored to OPERABLE status within the 4 hour Completion Time and that have been isolated in accordance with Required Action A.1, the affected penetration flow paths must be verified to be isolated on a periodic basis. This is necessary to ensure that containment penetrations required to be isolated following an accident and no longer capable of being automatically isolated will be in the isolation position should an event occur. This Required Action does not require any testing or device manipulation. Rather, it involves verification ~~through a system walkdown,~~ that those isolation devices outside containment and capable of being mispositioned are in the correct position. The Completion Time of "once per 31 days for isolation devices outside containment" is appropriate considering the fact that the devices are operated under administrative controls and the probability of their misalignment is low. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

remove strike-out

which may include the use of local or remote indicators

Q3.6.3-52

Condition A has been modified by a Note indicating that this Condition is only applicable to those penetration flow paths with two containment isolation valves. For penetration flow paths with only one containment isolation valve and a closed system, Condition C provides the appropriate actions.

Required Action A.2 is modified by a Note 1 that applies to isolation devices located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these devices once they have been verified to be in the proper position, is small.

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.3-52 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

STS B3.6.3 Bases - A.1 and A.2
STS B3.6.3 Bases - E.1 and E.2
STS B3.6.3 Bases - SR 3.6.3.3
STS B3.6.6.A Bases - SR 3.6.6A.1
STS B3.6.7 Bases - SR 3.6.7.1
ITS B3.6.3 Bases - A.1 and A.2
ITS B3.6.3 Bases - C.1, C.2 and C.3
ITS B3.6.3 Bases - D.1, D.2 and D.3
ITS B3.6.3 Bases - SR 3.6.3.3
ITS B3.6.6 Bases - SR 3.6.6.1
ITS B3.6.7 Bases - SR 3.6.7.1

A number of STS Required Actions (RA) and SRs require verification that certain valves be verified in the correct position. The Bases for these RAs and SRs state that the RA or SR do "not require any testing or valve manipulation." Rather, it involves verification, through a system walkdown, that those valves and/or isolation devices outside containment and capable of being mispositioned are in the correct position. The ITS has modified the statements to either delete the "system walkdown" verification or added a verification "by other approved means." It is the staff's position at this time that the only acceptable way to perform this verification is through a system walkdown. The deletion of the phrase "through a system walkdown" leaves the interpretation of the verification open to any method which may meet the intent of the RA or SR. The addition of the phrase "by other approved means," is too ambiguous and leads to questions such as who approves the method; and how is the approval done. In addition, the staff believes this proposed change is associated in part with WOG-91 (See Comment Number 3.6.3-11). Therefore, the staff considers this total change to be generic and beyond the scope of review of this conversion.

Comment: Delete this generic change.

FLOG RESPONSE: The deletion of the words "through a system walkdown," and the addition of the phrase "or other approved means" (WC only), was intended to allow for use of either local or remote indicators to determine valve position (e.g., control board valve position indications). This is particularly true for valves inside containment. The walkdowns performed for the corresponding CTS requirements have always been performed using local and remote indicators and we consider it to be a part of our current licensing basis. However, to remove the ambiguity of what constitutes an acceptable verification method, the phrase "through a system walkdown" is restored but is modified by "(which may include the use of local or remote indicators)" and for Wolf Creek, the phrase "or other approved means" is deleted.

ATTACHED PAGES:

Encl 5B B 3.6-17, B 3.6-20, B 3.6-23, B 3.6-41, B 3.6-48

BASES (Continued) Q3.6.3-48

retain strike-out

remove strike-out

In the event one containment isolation valve in one or more penetration flow paths requiring isolation following a DBA is inoperable ~~[except for purge Containment Purge supply and exhaust, Hydrogen Purge and Containment Pressure/Vacuum Relief isolation valve or shield building bypass leakage not within limit],~~ the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated ~~automatic~~ ~~containment~~ isolation valve, a closed manual valve ~~(this includes power operated valves with power removed)~~, a blind flange, and a check valve with flow through the valve secured. For a penetration flow path isolated in accordance with Required Action A.1, the device used to isolate the penetration should be the closest available one to containment. Required Action A.1 must be completed within 4 hours. The 4 hour Completion Time is reasonable, considering the time required to isolate the penetration and the relative importance of supporting containment OPERABILITY during MODES 1, 2, 3, and 4.

remove strike-out Q3.6.3-49

For affected penetration flow paths that cannot be restored to OPERABLE status within the 4 hour Completion Time and that have been isolated in accordance with Required Action A.1, the affected penetration flow paths must be verified to be isolated on a periodic basis. This is necessary to ensure that containment penetrations required to be isolated following an accident and no longer capable of being automatically isolated will be in the isolation position should an event occur. This Required Action does not require any testing or device manipulation. Rather, it involves verification ~~through a system walkdown,~~ that those isolation devices outside containment and capable of being mispositioned are in the correct position. The Completion Time of "once per 31 days for isolation devices outside containment" is appropriate considering the fact that the devices are operated under administrative controls and the probability of their misalignment is low. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

remove strike-out

which may include the use of local or remote indicators

Q3.6.3-52

Condition A has been modified by a Note indicating that this Condition is only applicable to those penetration flow paths with two containment isolation valves. For penetration flow paths with only one containment isolation valve and a closed system, Condition C provides the appropriate actions.

Required Action A.2 is modified by a Note 1 that applies to isolation devices located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these devices once they have been verified to be in the proper position, is small.

(Continued)

BASES (Continued)

~~restored~~ reduced to within limits, or the affected penetration flow path must be isolated. For this ACTION, the leakage limit is as specified under the Containment Leakage Rate Testing Program and exceeding this limit would require evaluation per Note 4 under LCO 3.6.3. The method of isolation must be by the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a ~~(~~ closed and de-activated automatic valve, closed manual valve (this includes power operated valves with power removed), or blind flange~~)~~. A ~~purge~~ Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ or Containment Pressure/Vacuum Relief Isolation valve with resilient seals utilized to satisfy Required Action ~~E~~D.1 must have been demonstrated to meet the leakage requirements of SR 3.6.3.7. The specified Completion Time is reasonable, considering that one ~~containment purge~~ valve remains closed so that a gross breach of containment does not exist.

ACTIONS (continued)

Q3.6.3-55

In accordance with Required Action ~~E~~D.2, this penetration flow path must be verified to be isolated on a periodic basis. The periodic verification is necessary to ensure that containment ~~penetrations required to be isolated~~ ~~leak rate~~ following an accident, ~~which are no longer capable of being automatically isolated, will be in the isolation position should an event occur~~ ~~will not exceed the limit assumed in the offsite dose analysis~~. This Required Action does not require any testing or valve manipulation. Rather, it involves verification ~~through a system walkdown~~ that those isolation devices outside containment capable of being ~~mis~~positioned are in the correct position. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

remove strike-out

remove strike-out

which may include the use of local or remote indicators

Q3.6.3-52

For the Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ or Containment Pressure/Vacuum Relief Isolation valve with resilient seal that is isolated in accordance with Required Action ~~E~~D.1, SR 3.6.3.7 must be performed at least once every 92 days. This assures that degradation of the resilient seal is detected and confirms that the leakage rate of the containment purge valve does not increase beyond the limits during the time the penetration is isolated. The normal Frequency for SR 3.6.3.7, 184 days, is based on an NRC initiative, Generic Issue B-20 (Ref. ~~3~~ 4). Since more reliance is placed on a single valve while in this Condition, it is prudent to perform the SR more often. Therefore, a Frequency of once per 92 days was chosen and has been shown to be acceptable based on operating experience.

Q3.6.3-56 Insert

~~F~~E.1 and ~~F~~E.2

If the Required Actions and associated Completion Times are not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5

(Continued)

remove strike-out

BASES

remove strike-out

that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification~~, through a system walkdown,~~ that those containment isolation valves outside containment and capable of being mispositioned are in the correct position. Since verification of valve position for containment isolation valves outside containment is relatively easy, the 31 day Frequency is based on engineering judgment and was chosen to provide added assurance of the correct positions. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time the valves are open.

which may include the use of local or remote indicators

Q3.6.3-52

The Note applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3 and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in the proper position, is small. Q3.6.3-34

This SR does not apply to valves that are locked, sealed, or otherwise secured in a closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.4

This SR requires verification that each containment isolation manual valve and blind flange located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. For containment isolation valves inside containment, the Frequency of "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is appropriate since these containment isolation valves are operated under administrative controls and the probability of their misalignment is low. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time they are open.

This Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3, and 4, for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

~~Note 2 modifies the requirement to verify the blind flange on the fuel transfer canal. The refueling cavity areas in containment are flooded only during plant shutdown for refueling. The flange is only removed to support refueling operations and replaced after drainage of the canal when no more fuel transfers between the fuel handling building and the containment will occur. Once replaced, the flange is not removed again until the next refueling. Since the removal of this flange is limited to refueling operations and access to it is restricted during MODES 1, 2, 3, and 4, the probability~~

(Continued)

BASES (Continued)

~~With two required containment cooling trains inoperable, one of these required containment cooling trains must be restored to OPERABLE status within 72 hours.~~ With one train of containment spray inoperable and one train of CFCUs inoperable such that a minimum of two CFCUs remain OPERABLE, restore one required train to OPERABLE status within 72 hours. The components remaining in OPERABLE status in this degraded condition provide iodine removal capabilities and are capable of providing at least 100% of the heat removal needs after an accident. The 72 hour Completion Time was developed taking into account the redundant heat removal capabilities afforded by combinations of the Containment Spray System and Containment Cooling System, the iodine removal function of the Containment Spray System, and the low probability of DBA occurring during this period.

ACTIONS (continued)

E.1 and E.2

If the Required Action and associated Completion Time of Condition C or D of this LCO are not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

F.1

or one or less CFCUs are OPERABLE Q3.6.6-2

With two containment spray trains or ~~any combination of three or more containment spray and cooling trains inoperable~~ one containment spray train inoperable and two CFCU trains inoperable such that one or less CFCUs remain OPERABLE, the unit is in a condition outside the accident analysis. Therefore, LCO 3.0.3 must be entered immediately.

SURVEILLANCE REQUIREMENTS

SR 3.6.6A.1

Verifying the correct alignment for manual, power operated, and automatic valves in the containment spray flow path provides assurance that the proper flow paths will exist for Containment Spray System operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these were verified to be in the correct position prior to locking, sealing, or securing. This SR does not require any testing or valve manipulation. Rather, it involves verification ~~through a system walkdown,~~ that those valves outside containment (only check valves are inside containment) and capable of potentially being mispositioned are in the correct position.

(remove strike-out)

which may include the use of local or remote indicators

Q3.6.3-52

(Continued)

BASES

assurance that the system is able to provide additive to the Containment Spray System in the event of a DBA. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these valves were verified to be in the correct position prior to locking, sealing, or securing. This SR does not require any testing or valve manipulation. Rather, it involves verification ~~through a system walkdown,~~ that those valves outside containment and capable of potentially being mispositioned are in the correct position. Q3.6.3-52

remove strike-out

which may include the use of local or remote indicators

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.7.2

To provide effective iodine removal, the containment spray must be an alkaline solution. Since the RWST contents are normally acidic, the volume of the spray additive tank must provide a sufficient volume of spray additive to adjust pH for all water injected. This SR is performed to verify the availability of sufficient NaOH solution in the Spray Additive System. The required volume may be surveilled using an indicated level band of 50 to 88% for the Spray Additive Tank which corresponds to the LCO 3.6.7 minimum and maximum limits adjusted conservatively for instrument accuracy of ±0.3%. The 184 day Frequency was developed based on the low probability of an undetected change in tank volume occurring during the SR interval (the tank is isolated during normal unit operations). Tank level is also indicated and equipped with a low level alarm in the control room, so that there is high confidence that a ~~substantial change in~~ level below an acceptable value would be detected. Q3.6.7-15

SR 3.6.7.3

This SR provides verification of the NaOH concentration in the spray additive tank and is sufficient to ensure that the spray solution being injected into containment is at the correct pH level. The 184 day Frequency is sufficient to ensure that the concentration level of NaOH in the spray additive tank remains within the established limits. This is based on the low likelihood of an uncontrolled change in concentration (the tank is normally isolated) and the probability that any substantial variance in tank volume will be detected. Q3.6.7-5

on a containment spray actuation signal

SR 3.6.7.4

DC-ALL-001

This SR provides verification that each automatic valve in the Spray Additive System flow path actuates to its correct position. This Surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the 18 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

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24

DC-ALL-001

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.3-55 **APPLICABILITY:** DC

REQUEST:

STS B3.6.3 Bases - E.1, E.2 and E.3
ITS B3.6.3 Bases - D.1, D.2 and D.3

The second sentence in the third paragraph of STS B3.6.3 Bases - E.1, E.2 and E.3 states the following: "The periodic verification is necessary to ensure that containment penetrations required to be isolated following an accident, which are no longer capable of being automatically isolated, will be in the isolation position should an event occur." DCPP ITS B3.6.3 Bases - D.1, D.2 and D.3 modifies this sentence as follows: "The periodic verification is necessary to ensure that containment leak rate following an accident, will not exceed the limit assumed in the offsite dose analysis." This modified statement is not entirely correct. The containment leak rate involves more than just this inoperable valve and the statement could allow leakage but not require isolation. The STS statement more accurately reflects the intent of the ACTION which is to ensure that the penetration is isolated.

Comment: Delete this change.

FLOG RESPONSE: The proposed change to ITS B3.6.3 - D.1, D.2, and D.3, will be deleted and the wording returned to that in the STS: "The periodic verification is necessary to ensure that containment penetrations required to be isolated following an accident, which are no longer capable of being automatically isolated, will be in the isolation position should an event occur."

ATTACHED PAGES:

Encl 5B B3.6-20

For Information Only Pages:

Encl 5B B3.6-19

BASES (Continued)

is isolated in accordance with Required Action C.1, the affected penetration flow path must be verified to be isolated on a periodic basis. This periodic verification is necessary to assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying that each affected penetration flow path is isolated is appropriate because the valves are operated under administrative controls and the probability of their misalignment is low.

Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. The closed system must meet the requirements of Reference 3. This Note is necessary since this Condition is written to specifically address those penetration flow paths in a closed system.

ACTIONS (continued)

Required Action C.2 is modified by a Note 1 that applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is small.

A second Note has been added to Required Action C.2 to provide clarification that the action to periodically verify the affected penetration flow path is isolated does not apply to manual valves and blind flanges that are locked, sealed, or otherwise secured. This is acceptable since these were verified to be in the correct position prior to locking, sealing, or securing.

~~D.1~~

~~With the shield building bypass leakage rate not within limit, the assumptions of the safety analyses are not met. Therefore, the leakage must be restored to within limit caused the limit to be exceeded by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. When a penetration is isolated the leakage rate for the isolated penetration is assumed to be the actual pathway leakage through the isolation device. If two isolation devices are used to isolate the penetration, the leakage rate is assumed to be the lesser actual pathway leakage of the two devices. The 4 hour Completion Time is reasonable considering the time required to restore the leakage by isolating the penetration(s) and the relative importance of secondary containment bypass leakage to the overall containment function.~~

~~E~~D.1, ~~E~~D.2, and ~~E~~D.3

In the event one or more Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ or Containment Pressure/Vacuum Relief isolation valves in one or more penetration flow paths are not within ~~the purge valve~~ leakage limits, ~~purge valve~~ leakage must be

(Continued)

BASES (Continued)

~~restored~~ reduced to within limits, or the affected penetration flow path must be isolated. For this ACTION, the leakage limit is as specified under the Containment Leakage Rate Testing Program and exceeding this limit would require evaluation per Note 4 under LCO 3.6.3. The method of isolation must be by the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a ~~(~~ closed and de-activated automatic valve, closed manual valve (this includes power operated valves with power removed), or blind flange~~)~~. A ~~purge~~ Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ or Containment Pressure/Vacuum Relief isolation valve with resilient seals utilized to satisfy Required Action ~~E~~D.1 must have been demonstrated to meet the leakage requirements of SR 3.6.3.7. The specified Completion Time is reasonable, considering that one ~~containment purge~~ valve remains closed so that a gross breach of containment does not exist.

ACTIONS (continued)

Q3.6.3-55

In accordance with Required Action ~~E~~D.2, this penetration flow path must be verified to be isolated on a periodic basis. The periodic verification is necessary to ensure that containment ~~penetrations required to be isolated~~ ~~leak rate~~ following an accident. ~~which are no longer capable of being automatically isolated, will be in the isolation position should an event occur~~ ~~will not exceed the limit assumed in the offsite dose analysis~~. This Required Action does not require any testing or valve manipulation. Rather, it involves verification~~, through a system walkdown,~~ that those isolation devices outside containment capable of being ~~mis~~positioned are in the correct position. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

remove strike-out

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which may include the use of local or remote indicators

Q3.6.3-52

For the Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ or Containment Pressure/Vacuum Relief isolation valve with resilient seal that is isolated in accordance with Required Action ~~E~~D.1, SR 3.6.3.7 must be performed at least once every 92 days. This assures that degradation of the resilient seal is detected and confirms that the leakage rate of the containment purge valve does not increase beyond the limits during the time the penetration is isolated. The normal Frequency for SR 3.6.3.7, 184 days, is based on an NRC initiative, Generic Issue B-20 (Ref. ~~3~~ 4). Since more reliance is placed on a single valve while in this Condition, it is prudent to perform the SR more often. Therefore, a Frequency of once per 92 days was chosen and has been shown to be acceptable based on operating experience.

Q3.6.3-56 Insert

~~F~~E.1 and ~~F~~E.2

If the Required Actions and associated Completion Times are not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.3-56 **APPLICABILITY:** DC, CP

REQUEST:

B3.6.3 Bases - E.1, E.2, and E.3
ITS B3.6.3 Bases - D.1, D.2, and D.3

STS B3.6.3 Bases - E.1, E.2 and E.3 does not provide a description of the Note associated with RA E.2. ITS B3.6.3 Bases - D.1, D.2, and D.3 also does not provide a description of the Note associated with RA D.2. The Callaway and WCGS ITS markups provide this description.

Comment: Revise the ITS markup to provide this description.

FLOG RESPONSE: A description of Notes 1 and 2 for Required Action D.2 has been added to the appropriate Bases section.

ATTACHED PAGES:

Encl 5B B3.6-20

For Information Only Pages:

Encl 5B B3.6-19, 21

BASES (Continued)

is isolated in accordance with Required Action C.1, the affected penetration flow path must be verified to be isolated on a periodic basis. This periodic verification is necessary to assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying that each affected penetration flow path is isolated is appropriate because the valves are operated under administrative controls and the probability of their misalignment is low.

Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. The closed system must meet the requirements of Reference 3. This Note is necessary since this Condition is written to specifically address those penetration flow paths in a closed system.

ACTIONS (continued)

Required Action C.2 is modified by a Note 1 that applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is small.

A second Note has been added to Required Action C.2 to provide clarification that the action to periodically verify the affected penetration flow path is isolated does not apply to manual valves and blind flanges that are locked, sealed, or otherwise secured. This is acceptable since these were verified to be in the correct position prior to locking, sealing, or securing.

~~D.1~~

~~With the shield building bypass leakage rate not within limit, the assumptions of the safety analyses are not met. Therefore, the leakage must be restored to within limit caused the limit to be exceeded by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. When a penetration is isolated the leakage rate for the isolated penetration is assumed to be the actual pathway leakage through the isolation device. If two isolation devices are used to isolate the penetration, the leakage rate is assumed to be the lesser actual pathway leakage of the two devices. The 4 hour Completion Time is reasonable considering the time required to restore the leakage by isolating the penetration(s) and the relative importance of secondary containment bypass leakage to the overall containment function.~~

~~E~~D.1, ~~E~~D.2, and ~~E~~D.3

In the event one or more Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ or Containment Pressure/Vacuum Relief isolation valves in one or more penetration flow paths are not within ~~the purge valve~~ leakage limits, ~~purge valve~~ leakage must be

(Continued)

BASES (Continued)

~~restored~~ reduced to within limits, or the affected penetration flow path must be isolated. For this ACTION, the leakage limit is as specified under the Containment Leakage Rate Testing Program and exceeding this limit would require evaluation per Note 4 under LCO 3.6.3. The method of isolation must be by the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a ~~[~~ closed and de-activated automatic valve, closed manual valve (this includes power operated valves with power removed), or blind flange~~]~~. A ~~purge~~ Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ or Containment Pressure/Vacuum Relief isolation valve with resilient seals utilized to satisfy Required Action ~~E~~D.1 must have been demonstrated to meet the leakage requirements of SR 3.6.3.7. The specified Completion Time is reasonable, considering that one ~~containment purge~~ valve remains closed so that a gross breach of containment does not exist.

ACTIONS (continued)

Q3.6.3-55

In accordance with Required Action ~~E~~D.2, this penetration flow path must be verified to be isolated on a periodic basis. The periodic verification is necessary to ensure that containment ~~penetrations required to be isolated~~ ~~leak rate~~ following an accident, ~~which are no longer capable of being automatically isolated, will be in the isolation position should an event occur will not exceed the limit assumed in the offsite dose analysis~~. This Required Action does not require any testing or valve manipulation. Rather, it involves verification ~~through a system walkdown~~ that those isolation devices outside containment capable of ~~being mis~~positioned are in the correct position. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

remove strike-out

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which may include the use of local or remote indicators

Q3.6.3-52

For the Containment Purge supply and exhaust, ~~Hydrogen Purge,~~ or Containment Pressure/Vacuum Relief isolation valve with resilient seal that is isolated in accordance with Required Action ~~E~~D.1, SR 3.6.3.7 must be performed at least once every 92 days. This assures that degradation of the resilient seal is detected and confirms that the leakage rate of the containment purge valve does not increase beyond the limits during the time the penetration is isolated. The normal Frequency for SR 3.6.3.7, 184 days, is based on an NRC initiative, Generic Issue B-20 (Ref. ~~3~~ 4). Since more reliance is placed on a single valve while in this Condition, it is prudent to perform the SR more often. Therefore, a Frequency of once per 92 days was chosen and has been shown to be acceptable based on operating experience.

Q3.6.3-56 Insert

~~F~~E.1 and ~~F~~E.2

If the Required Actions and associated Completion Times are not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5

(Continued)

Bases page B3.6-20 - Insert for RA D.1, D.2, and D.3:

Required Action D.2 is modified by a Note 1 that applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these valves, once they have been verified to be in the other position, is small.

A second Note has been added to Required Action D.2 to provide clarification that the action to periodically verify the affected penetration flow path is isolated does not apply to manual valves and blind flanges that are locked, sealed, or otherwise secured. This is acceptable since these were verified to be in the correct position prior to locking, sealing, or securing.

BASES (Continued)

within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

(Continued)

3.6.5 Containment Air Temperature

ADDITIONAL INFORMATION NO: Q 3.6.5-1 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 5-01 LG
CTS 4.6.1.5
ITS B3.6.5 Bases - SR 3.6.5.1

CTS 4.6.1.5 specifies the method for calculating the containment average air temperature and the locations where the temperature measurements are to be taken. These items have been relocated to ITS B3.6.5 Bases -SR 3.6.5.1. DOC 05-01 LG justifies the relocation based on the level of detail in the TS not being consistent with NUREG 1431. Consistency with NUREG-431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document.

Comment: Provide additional discussion and justification for this Less Restrictive change.

FLOG RESPONSE: DOC 05-01-LG was revised to add the following wording: "These details are not necessary to ensure that the containment air temperature is maintained within limits. The requirements of ITS Specification 3.6.5, 'Containment Air Temperature,' and ITS SR 3.6.5.1 are adequate to ensure the containment air temperature is maintained within the limit."

ATTACHED PAGES:

Encl 3A 5

CHANGE NUMBER	NSHC	DESCRIPTION
03-12	A	The statement that Specification 3.0.4 does not apply is no longer needed as revised ACTIONS consistent with NUREG-1431 permit continued operation for an unlimited period of time.
03-13	A	Consistent with NUREG-1431, a Note is added to the ACTIONS to enter applicable Conditions and Required ACTIONS of the "Containment" LCO when leakage results in exceeding the overall containment leakage rate. This is current operating practice per TS requirement CTS 3.6.1.1. Therefore, this change is considered an administrative change in format.
03-14	A	Insert Q3.6.2-7
03-15	A	Insert Q3.6.2-8
05-01	LG	The method for calculating containment average temperature and the locations where measurements are taken are moved to the Bases. This level of detail in the TS is not consistent with NUREG-1431. The improved STS Bases is licensee controlled under the Bases Control Program in the Administrative Controls section of the improved STS. Insert Q3.6.5-1
06-01		Not Used.
06-02	A	The structural integrity requirements of containment are contained in ITS 3.6.1. The inspection requirements associated with structural integrity of the exposed accessible interior and exterior containment surfaces, are contained in Appendix J, Option B and in Regulatory Guide (RG) 1.163. The requirement to perform visual inspections is in ITS Surveillance Requirement (SR) 3.6.1.1 which refers to the containment Leakage Rate Testing Program as controlled by ITS 5.5.16.
06-03	TR2	Consistent with NUREG-1431, the reporting requirement is being deleted. 10 CFR 50.72 and 10 CFR 50.73 establish the reporting requirements.
06-04	M	The ACTION is moved to ITS 3.6.1, Condition A and B. The ITS requirements are more severe in that only 1 hour allowed outage time (AOT) is provided while the CTS provides a 24 hour AOT. The shorter AOT is acceptable because a containment which may not be able to act as a boundary as designed could have a significant adverse impact on the consequences of an accident.
07-01	A	Consistent with NUREG-1431, the LCO and SRs for containment ventilation/purge valves are now included in ITS 3.6.3 for Containment Isolation Valves.
07-02	LS9	Consistent with NUREG-1431, the Required Action for a containment ventilation/purge valve with a leakage rate which exceeds the acceptance criteria is revised to allow continued operation if the penetration flow path is isolated within 24 hours. This action is in lieu of requiring a shutdown if the valve leakage rate is not restored to an acceptable value within 24 hours. This is considered acceptable because with the associated penetrations isolated per the proposed ACTION requirement, no accident is credible as a result of the leaking valve.

Not applicable to DCPP. See Conversion Comparison Table (Enclosure 3.3).

Q3.6.1-5

Insert for DOC 05-01-LG: These details are not necessary to ensure that the containment air temperature is maintained within limits. The requirements of ITS Specification 3.6.5, "Containment Air Temperature," and ITS SR 3.6.5.1 are adequate to ensure the containment air temperature is maintained within the limit.

ADDITIONAL INFORMATION NO: Q 3.6.5-3 **APPLICABILITY:** DC, CP

REQUEST:

STS 3.6.5 Bases - APPLICABLE SAFETY ANALYSES
ITS B3.6.5 Bases - APPLICABLE SAFETY ANALYSES

ITS B3.6.5 Bases - APPLICABLE SAFETY ANALYSES makes a number of changes to the fourth paragraph of STS B3.6.5 Bases - APPLICABLE SAFETY ANALYSES. in particular, the end of the paragraph starting at "the maximum peak containment air temperature..." is deleted. Since ITS changes to the STS Bases were made based on changes to the STS, on plant specific system design, or on current licensing basis as specified in the CTS, the deletion does not seem to fall into any of these categories. The staff believes that the deleted information provides useful descriptive information necessary for the understanding of the ITS.

Comment: Retain these deleted STS sentences or provide a discussion justifying their deletion.

FLOG RESPONSE: This paragraph addresses how a containment temperature envelope is applied in the environmental qualification of safety-related equipment inside containment. The STS statements are too general for CPSES. The plant specific environmental qualification packages use the appropriate accident temperature envelope and the various techniques allowed by NRC Reg. Guide 1.89 and IEEE-323, 1974, as described in the FSAR and environmental qualification calculations. The various techniques used by CPSES are too complex and detailed to add to the Bases and are replaced with the new sentence which was added to this paragraph.

Similarly, the specific methodology described in the ITS Bases is too limiting for DCPP. While that methodology was one of those used in the DCPP EQ evaluations, it is not necessarily the only one. Inclusion of this description in the ITS Bases implies that this was the only methodology used, and could be interpreted to mean that it was used to the exclusion of other methodologies. DCPP believes it is inappropriate to include a detailed discussion of specific EQ methodologies in the TS Bases; thus a more general discussion was added to replace it.

ATTACHED PAGES:

None

For Information Only Pages:

Encl 5B B3.6-33

BASES (Continued)

(Ref. 1) is 120°F. ~~This resulted in a maximum containment air temperature of [340.9]°F. The design temperature is [320]°F.~~

The containment design temperature is 271°F. The containment structure was analyzed to withstand the maximum peak temperature for the limiting DBA LOCA to ensure that it can contain the release of radioactive materials resulting from the accident. The containment structure was not analyzed for SLBs ~~since it is a less limiting event structurally~~ which were not considered design basis for containment structural design.

The spectrum of SLBs cases are ~~temperature limit is~~ used to establish the environmental qualification operating envelope ~~for~~ inside containment. The analysis shows that the peak containment temperature is 326°F (experienced during the MSLB at 70 % power). The performance of required safety-related equipment ~~including the containment structure itself,~~ is evaluated against this operating envelope to ensure the equipment can perform its safety function (Ref. 2). ~~The maximum peak containment air temperature was calculated to exceed the containment design temperature for only a few seconds during the transient. The basis of the containment design temperature, however, is to ensure the performance of safety related equipment inside containment (Ref. 2). Thermal analyses showed that the time interval during which the containment air temperature exceeded the containment design temperature was short enough that the equipment surface temperatures remained below the design temperature. Therefore, it is concluded that the calculated transient containment air temperature is acceptable for the DBA SLB.~~

The temperature limit is also used in the ~~depressurization~~ Containment external pressure analyses to ensure that the minimum pressure limit is maintained following an inadvertent actuation of the Containment Spray System (Ref. 1).

The containment pressure transient is sensitive to the initial air mass in containment and, therefore, to the initial containment air temperature. ~~The limiting DBA for establishing the maximum peak containment internal pressure is a LOCA.~~ The temperature limit is used in this analysis to ensure that in the event of an accident the maximum containment internal pressure will not be exceeded. Containment average air temperature satisfies Criterion 2 of ~~the NRC Policy Statement~~ 10CFR50.36(c)(ii).

LCO

~~During a DBA, with an initial~~Maintaining the containment average air temperature less than or equal to the LCO temperature limit~~, the resultant peak accident temperature is maintained below the containment design temperature. As a result, the ability of containment to perform its design function is ensured~~ ensures that the initial containment temperature assumed in the DBA analysis will not be violated.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, maintaining containment average air temperature within the limit is not required in MODE 5 or 6.

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.5-4 **APPLICABILITY:** DC, WC

REQUEST:

STS B3.6.5 Bases - LCO
ITS B3.6.5 Bases - LCO

ITS B3.6.5 Bases - LCO makes a number of changes to the STS B3.6.5 Bases - LCO. Since the ITS changes to the STS Bases were made based on changes to the STS, on plant specific system design or on current licensing basis as specified in the CTS, the changes to STS B3.6.5 Bases - LCO do not seem to fall into any of these categories.

Comment: Provide a discussion and justification for these changes.

FLOG RESPONSE: No change. The ITS B3.6.5 Bases - LCO changes were made to reflect the Wolf Creek and Diablo Canyon plant specific design, analysis, and terminology details. The STS Bases statement addresses only the containment design temperature which is considered to be the structural design temperature. In accordance with 10 CFR 50.49, the basis for containment temperature is to ensure the performance of safety-related equipment. Thermal analyses indicated that the time interval during which the containment air temperature exceeds the containment design temperature was a short duration such that the equipment surface temperature (including the structure) remained below the containment design temperature. The statement in the STS Bases - LCO is not strictly true. Wolf Creek and Diablo Canyon still desire to pursue this change.

ATTACHED PAGES:

None

For Information Only Pages:

Encl 5B B3.6-33

BASES (Continued)

(Ref. 1) is 120°F. ~~This resulted in a maximum containment air temperature of [340.9]°F. The design temperature is [320]°F.~~

The containment design temperature is 271°F. The containment structure was analyzed to withstand the maximum peak temperature for the limiting DBA LOCA to ensure that it can contain the release of radioactive materials resulting from the accident. The containment structure was not analyzed for SLBs ~~since it is a less limiting event structurally~~ which were not considered design basis for containment structural design.

The spectrum of SLBs cases are ~~temperature limit is~~ used to establish the environmental qualification operating envelope ~~for~~ inside containment. The analysis shows that the peak containment temperature is 326°F (experienced during the MSLB at 70 % power). The performance of required safety-related equipment ~~including the containment structure itself,~~ is evaluated against this operating envelope to ensure the equipment can perform its safety function (Ref. 2). ~~The maximum peak containment air temperature was calculated to exceed the containment design temperature for only a few seconds during the transient. The basis of the containment design temperature, however, is to ensure the performance of safety-related equipment inside containment (Ref. 2). Thermal analyses showed that the time interval during which the containment air temperature exceeded the containment design temperature was short enough that the equipment surface temperatures remained below the design temperature. Therefore, it is concluded that the calculated transient containment air temperature is acceptable for the DBA SLB.~~

The temperature limit is also used in the ~~depressurization~~ Containment external pressure analyses to ensure that the minimum pressure limit is maintained following an inadvertent actuation of the Containment Spray System (Ref. 1).

The containment pressure transient is sensitive to the initial air mass in containment and, therefore, to the initial containment air temperature. ~~The limiting DBA for establishing the maximum peak containment internal pressure is a LOCA.~~ The temperature limit is used in this analysis to ensure that in the event of an accident the maximum containment internal pressure will not be exceeded. Containment average air temperature satisfies Criterion 2 of ~~the NRC Policy Statement~~ 10CFR50.36(c)(ii).

LCO

~~During a DBA, with an initial~~Maintaining the containment average air temperature less than or equal to the LCO temperature limit~~, the resultant peak accident temperature is maintained below the containment design temperature. As a result, the ability of containment to perform its design function is ensured~~ ensures that the initial containment temperature assumed in the DBA analysis will not be violated.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, maintaining containment average air temperature within the limit is not required in MODE 5 or 6.

(Continued)

3.6.6 Containment Spray and Cooling Systems

ADDITIONAL INFORMATION NO: Q 3.6.6-2 **APPLICABILITY:** DC

REQUEST:

DOC 8-10 A
JFD 3.6-14
CTS 3.6.2.1 ACTIONS
CTS 3.6.2.3 ACTIONS
STS 3.6.6 ACTION F
ITS 3.6.6 ACTION F and Associated Bases

DCPP CTS 3.6.2.1 ACTIONS provide remedial actions to be taken if one Containment Spray System is inoperable. If two Containment Spray Systems are inoperable, no ACTIONS are provided in CTS 3.6.2.1, therefore, CTS 3.0.3 is entered. Likewise, CTS 3.6.2.3 ACTIONS do not provide remedial actions to be taken when one Containment Spray System and two CFCU trains are inoperable such that one or less CFCUs remain OPERABLE or one of less CFCUs are OPERABLE. Thus, CTS 3.0.3 is entered. STS 3.6.6 ACTION F has been modified in ITS 3.6.6 ACTION F to address the above loss of functions. The CTS markup and the ITS Bases markup of STS 3.6.6 ACTION F are not consistent with ITS 3.6.6 ACTION F.

Comment: Revise the CTS and ITS markups to be consistent. Provide any additional discussion and justification, as necessary, for this Administrative change.

FLOG RESPONSE: The CTS 3.6.2.3 markup and ITS LCO 3.6.6, ACTION F, Bases have been revised to add the third condition: "or one or less CFCUs are OPERABLE."

ATTACHED PAGES:

Encl 2	3/4 6-13
Encl 5B	B3.6-41

Q3.6.0-1
01-07-A
08-04-A

LIMITING CONDITION FOR OPERATION

3.6.2.3 The Containment Cooling System shall be OPERABLE with either:

a. At least four containment fan cooler units (CFCUs), or

b. At least three CFCUs, each of the three supplied from a different vital bus.

APPLICABILITY: MODES 1, 2, 3, and 4.

M
08-11-L~~S~~2
Q3.6.6-4

ACTION: *

a. With the requirements of the above specification not satisfied, but at least two CFCUs OPERABLE and both Containment Spray Systems OPERABLE, restore the Containment Cooling System to OPERABLE status within 7 days, otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With the requirements of the above specification not satisfied and one Containment Spray System inoperable, but at least two CFCUs OPERABLE, restore the inoperable Containment Spray System to OPERABLE status within 72 hours otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the Containment Cooling System to OPERABLE status within 7 days of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Insert Q3.6.6-12

(new) With one Containment Spray System and one or less CFCUs operable or two Containment Spray Systems inoperable, enter LCO 3.0.3.

, or one or less CFCUs OPERABLE

08-12-M
08-10-A

SURVEILLANCE REQUIREMENTS

Q3.6.6-2

4.6.2.3 Each containment fan cooler unit shall be demonstrated OPERABLE:

a. At least once per 31 days by:

1) Starting each containment fan cooler unit and verifying that each containment fan cooler unit operates for at least 15 minutes.

M
08-11-L~~S~~2
Q3.6.6-4

* Additionally, a completion time of 10 days from discovery of failure to meet the conditions of 3.6.2.1 and 3.6.2.3.

BASES (Continued)

~~With two required containment cooling trains inoperable, one of these required containment cooling trains must be restored to OPERABLE status within 72 hours.~~ With one train of containment spray inoperable and one train of CFCUs inoperable such that a minimum of two CFCUs remain OPERABLE, restore one required train to OPERABLE status within 72 hours. The components remaining in OPERABLE status in this degraded condition provide iodine removal capabilities and are capable of providing at least 100% of the heat removal needs after an accident. The 72 hour Completion Time was developed taking into account the redundant heat removal capabilities afforded by combinations of the Containment Spray System and Containment Cooling System, the iodine removal function of the Containment Spray System, and the low probability of DBA occurring during this period.

ACTIONS (continued)

E.1 and E.2

If the Required Action and associated Completion Time of Condition C or D of this LCO are not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

F.1

or one or less CFCUs are OPERABLE Q3.6.6-2

With two containment spray trains or ~~any combination of three or more containment spray and cooling trains inoperable~~ one containment spray train inoperable and two CFCU trains inoperable such that one or less CFCUs remain OPERABLE, the unit is in a condition outside the accident analysis. Therefore, LCO 3.0.3 must be entered immediately.

SURVEILLANCE REQUIREMENTS

SR 3.6.6A.1

Verifying the correct alignment for manual, power operated, and automatic valves in the containment spray flow path provides assurance that the proper flow paths will exist for Containment Spray System operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these were verified to be in the correct position prior to locking, sealing, or securing. This SR does not require any testing or valve manipulation. Rather, it involves verification ~~through a system walkdown,~~ that those valves outside containment (only check valves are inside containment) and capable of potentially being mispositioned are in the correct position.

remove strike-out

Which may include the use of local or remote indicators

Q3.6.3-52

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.6-3 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 8-03 TR-1
DOC 9-05 TR-1
CTS 4.6.2.1.c
CTS 4.6.2.3.b
ITS SR 3.6.6.5
ITS SR 3.6.6.6
ITS SR 3.6.6.7

CTS 4.6.2.1.c requires that each automatic valve in the Containment Spray System flow path actuates to its correct position and the containment spray pump starts on a specified test signal. CTS 4.6.2.3.b requires the containment cooling fans start on a specified test signal. In converting these CTS requirements to ITS SRs the CTS is modified to allow credit to be taken for an actual as well as a simulated (test) signal. DOCs 8-03 TR1 and 9-05 TR-1 do not provide sufficient information to justify allowing the use of an actual signal.

Comment: Provide additional discussion and justification to allow the use of an actual signal to meet these surveillance requirements.

FLOG RESPONSE: The CTS requires the use of a test signal for initiation of valid tests. The unintentional result was to require the reperformance of the verification even if an actual signal had already verified proper operation of the equipment. TR1 allows either an actual or test signal. DOC 8-03 TR1 (which is not applicable to DCPP) and DOC 9-05 TR1 have been updated to provide additional discussion and justification to allow the use of an actual signal to meet these surveillance requirements.

ATTACHED PAGES:

Encl 3A 8

CHANGE NUMBER	NSHC	DESCRIPTION
09-02	LG	The descriptive information in LCO 3.6.2.2 regarding OPERABILITY of the spray additive system is contained within the definition of OPERABILITY as described in the ITS 3.6.7 Bases. This is consistent with NUREG-1431 and is acceptable because while the descriptive detail has been moved to the Bases, the basic requirement is retained in the LCO.
09-03	A	Consistent with NUREG-1431, the ACTION statement is revised by deleting the reference to restoring the spray additive system to OPERABILITY within 48 hours or be in COLD SHUTDOWN within the following 30 hours. The revised ACTION statement contains a requirement to be in COLD SHUTDOWN within 78 hours. The time allowed to be in COLD SHUTDOWN has not changed. As discussed in the Bases, the interval to reach COLD SHUTDOWN allows 48 hours for restoration of the system OPERABILITY and an additional 36 hours to achieve COLD SHUTDOWN.
09-04	A	Consistent with NUREG-1431, adds the phrase 'that is not locked, sealed, or otherwise secured in position with regard to which valves require actuation testing. This change is merely a clarification. Valves that are secured in place, are secured in the position required to meet their safety function. The actuation testing ensures that valves can move to the position that meets their safety function. If the valves are secured in the position that meets their safety function, no testing is necessary.
09-05	TR1	The specific actuation signal (a [safety injection or Containment spray] actuation test signal) for the surveillance was replaced with a generic words that allow credit for an actual or simulated actuation. Identification of the signal is moved to the Bases. Insert Q3.6.6-3 Q3.6.7-6
09-06	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
09-07	M	Consistent with NUREG-1431, the surveillance is modified to require demonstration of flow through each solution flow path. This assures that all spray additive flow paths are clear.
10-01	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
10-02	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
10-03	LG	The DCPP specific Note cautioning that containment fan cooling unit (CFCU) flow rate may not be achieved during Section XI testing and residual heat removal (RHR) operation is relocated to the Bases. This level of detail is not required in the TS.

Consistent with NUREG-1431, the specific details in the surveillance requirement [ ] are removed from the TS [ ]. These details are now contained in the Bases. This is acceptable because the basic test requirement is retained in the TS.

Q3.6.7-9

Insert for 09-05-TR1:

In several specifications throughout the TS, OPERABILITY of certain equipment is demonstrated by ensuring that the equipment performs it safety function upon receipt of a simulated test signal. The intent of a 'simulated' signal was to be able to perform the required testing without the occurrence (or without causing) an actual signal generating event. However, the unintended effect was to require the performance of the surveillance (using a test signal) even if an actual signal had previously verified the operation of the equipment. This change allows credit to be taken for actual events when the required equipment actuates successfully.

While the occurrence of events that cause actuation of accident mitigation equipment is undesirable, the actuation of mitigation equipment on an actual signal is a better demonstration of its OPERABILITY than an actuation using a test signal. Thus the change does not reduce the reliability of the equipment tested. The change also improves plant safety by reducing the amount of time the equipment is taken out of service for testing and thereby increasing its availability during an actual event and by reducing the wear of the equipment caused by unnecessary testing.

ADDITIONAL INFORMATION NO: Q 3.6.6-4 **APPLICABILITY:** DC, WC, CA

REQUEST:

DOC 8-11 LS-2
CTS 3.6.2.1 ACTIONS
CTS 3.6.2.3 ACTIONS
ITS 3.6.6 ACTIONS A and C and Associated Bases

The Completion Times for one Containment Spray System and/or one Containment Cooling System inoperable in CTS 3.6.2.1 ACTIONS and CTS 3.6.2.3 ACTIONS have been modified by an additional Completion Time of "and 10 days from discovery of failure to meet the LCO." DOC 8-11 LS-2 states that this change is a Less Restrictive change in that the 10 days is greater than the CTS 7 day AOT. This is incorrect. The intent of the Completion Time of "10 days from discovery of failure to meet the LCO" in ITS 3.6.6 ACTIONS A and C is to prevent the unit from operating indefinitely with a Containment Spray System and/or Containment Cooling System inoperable. Based on the structure and application of the remedial measures specified in the CTS ACTIONS, the CTS would allow indefinite operation with an inoperable Containment Spray System and/or Containment Cooling System. Thus the change is a More Restrictive change rather than a Less Restrictive change.

Comment: Provide a discussion and justification for this More Restrictive change.

FLOG RESPONSE: Section 3.6 DOC 8-11 LS-2 has been changed to DOC 8-11 M and revised to read: "CTS LCO 3.6.2.1 Actions and CTS LCO 3.6.2.3 Actions have been modified in converting to ITS LCO 3.6.6 Actions by the additional requirement to perform the action within '10 days from discovery of failure to meet the LCO.' This requirement is established to limit the maximum time allowed for any combination of containment spray trains and containment cooling trains to be inoperable during any single contiguous occurrence of failing to meet the LCO. The purpose of the second Completion Time (i.e., 10 days from discovery) in the ITS LCO 3.6.6 Actions is to prevent alternating between Conditions in such a manner that operation could continue indefinitely without ever restoring systems to meet the LCO. As discussed in Section 1.3, 'Completion Times,' the Completion Time allows for an exception time to the normal 'time zero' for beginning the allowed outage time 'clock.' This will result in establishing the 'time zero' at the time the LCO was initially not met, instead of the time Condition A was entered. The 10 day Completion Time is an acceptable limitation on this potential to fail to meet the LCO indefinitely." The CTS markups were revised to indicate that the 10 day Completion Time is applicable to both CTS LCO 3.6.2.1 and 3.6.2.3, as these are separate specifications in the CTS.

ATTACHED PAGES:

Encl 2	3/4 6-11, & 13
Encl 3A	7
Encl 3B	7
Encl 4	1, 16, & 17

Q3.6.0-1
01-07-A
08-04-A

LIMITING CONDITION FOR OPERATION

8-01-LG

3.6.2.1 Two Containment Spray Systems shall be OPERABLE ~~with each Spray System capable of taking suction from the RWST and transferring spray function to a RHR System taking suction from the containment sump.~~

APPLICABILITY: MODES 1, 2, 3 and 4.

M
08-11-LS2
Q3.6.6-4

ACTION: *

With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; ~~restore the inoperable Spray System to OPERABLE status within the next 48 hours or~~ and be in COLD SHUTDOWN within the following ~~30~~ 78 hours.

08-02-A

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. By verifying that ~~on recirculation flow~~, each pump's developed head at the flow test point is ~~a differential pressure of~~ greater than or equal to ~~205 psid~~ the required developed head when tested pursuant to ~~Specification 4.0.5~~ the Inservice Test Program;

08-08-LG

DC-ALL-001

c. At least once ~~per 18 months~~ each REFUELING INTERVAL by:

1) Verifying that each automatic valve in the flow path actuates to its correct position on an actual or simulated actuation signal, and

2) Verifying that each spray pump starts automatically on an actual or simulated actuation signal.

d. At least once per 10 years by ~~performing an air or smoke flow test through each spray header and~~ verifying each spray nozzle is unobstructed.

08-06-LG

M
08-11-LS2
Q3.6.6-4

* Additionally, a completion time of 10 days from discovery of failure to meet the conditions of 3.6.2.1 and 3.6.2.3.

Q3.6.0-1
01-07-A
08-04-A

LIMITING CONDITION FOR OPERATION

3.6.2.3 The Containment Cooling System shall be OPERABLE with either:

a. At least four containment fan cooler units (CFCUs), or

b. At least three CFCUs, each of the three supplied from a different vital bus.

APPLICABILITY: MODES 1, 2, 3, and 4.

M
08-11-~~L~~2
Q3.6.6-4

ACTION: *

a. With the requirements of the above specification not satisfied, but at least two CFCUs OPERABLE and both Containment Spray Systems OPERABLE, restore the Containment Cooling System to OPERABLE status within 7 days, otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With the requirements of the above specification not satisfied and one Containment Spray System inoperable, but at least two CFCUs OPERABLE, restore the inoperable Containment Spray System to OPERABLE status within 72 hours otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the Containment Cooling System to OPERABLE status within 7 days of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Insert Q3.6.6-12

08-12-M
08-10-A

(new) With one Containment Spray System and one or less CFCUs operable or two Containment Spray Systems inoperable, enter LCO 3.0.3.

, or one or less CFCUs OPERABLE

SURVEILLANCE REQUIREMENTS

Q3.6.6-2

4.6.2.3 Each containment fan cooler unit shall be demonstrated OPERABLE:

a. At least once per 31 days by:

1) Starting each containment fan cooler unit and verifying that each containment fan cooler unit operates for at least 15 minutes.

M
08-11-~~L~~2
Q3.6.6-4

* Additionally, a completion time of 10 days from discovery of failure to meet the conditions of 3.6.2.1 and 3.6.2.3.

DESCRIPTION OF CHANGES TO TS SECTION 3/4.6
(Continued)

CHANGE NUMBER	NSHC	DESCRIPTION
08-02	A	Consistent with NUREG-1431, the ACTION statement is revised by replacing the reference to restoring the CSS to OPERABLE status within 48 hours or be in COLD SHUTDOWN within the following 30 hours, with the requirement to be in COLD SHUTDOWN within 78 hours. The time allowed to be in cold shutdown has not changed. The requirements of the action statement have also not changed, since as discussed in the Bases, the extended interval to reach COLD SHUTDOWN allows 48 hours for restoration of the system OPERABILITY and an additional 36 hours to achieve COLD SHUTDOWN.
08-03	TR1	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-04	A	The LCOs for containment spray system and containment coolers are combined into one LCO per NUREG-1431.
08-05	LS12	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-06	LG	The details on flow testing for nozzle obstructions and specific actuation signals that apply for automatic actuations are moved to the Bases. This is acceptable as the requirement to test remains in the Technical Specification and this level of detail is not contained in NUREG-1431.
08-07		Not Used.
08-08	LG	The specific pump discharge pressure value would be moved to the ~~Inservice Testing Program.~~ Bases Insert Q3.6.6-5
08-09	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-10	A	ITS Condition F. specifies two containment spray trains or any combination of three or more trains inoperable to enter 3.0.3. Even though this condition is not specified in the CTS, 3.0.3 would be entered.
08-11	~~LS2~~ M	A "from discovery of failure to meet the LCO provision" has been added to the Completion Time for one train of containment spray/cooling systems inoperable. This change is considered less restrictive in that the 10 days allowed in the ITS not to meet the LCO is greater than the CTS would allow.
08-12	M	Insert Q3.6.6-12
09-01	A	The DCPP units for the spray additive tank volume limits are changed from gallons to percent.

Insert Q3.6.6-4

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
08-10 A	ITS Condition F. specifies two containment spray trains or any combination of three or more trains inoperable to enter 3.0.3. Even though this condition is not specified in the CTS, 3.0.3 would be entered.	Yes	No, CPSES has only two containment spray trains covered by this specification. Loss of both of these trains is outside the CTS and 3.0.3 is automatically invoked.	Yes	Yes
08-11 ~~LS2~~ M	~~A "from discovery of failure to meet the LCO provision" has been added to the Completion Time for one train of containment spray/cooling systems inoperable. This change is considered less restrictive in that the 10 days allowed in the ITS not to meet the LCO is greater than the CTS would allow.~~ → Insert CP3.6.6-4	Yes	No, CPSES CTS does not have a curtailment cooler specification.	Yes	Yes
09-01 A	The units for the spray additive tank volume limits are changed from gallons to percent.	Yes	No	No	No
09-02 LG	The OPERABILITY of the spray additives educators is contained within the definition of OPERABILITY for the spray additive system as described in the Bases.	Yes	Yes	Yes	Yes
09-03 A	This change revises the ACTION statement by replacing the reference to restoring the spray additive system to OPERABLE status within 48 hours or be in COLD SHUTDOWN within the following 30 hours, with the requirement to be in COLD SHUTDOWN within 78 hours.	Yes	Yes	Yes	Yes
09-04 A	This change adds the phrase "that is not locked, sealed, or otherwise secured in position" with regard to which valves require actuation testing.	Yes	Yes	No, current practice per CTS SR 4.6.2.2.	No, current practice per CTS SR 4.6.2.2.

→ 08-12 M Insert CP3.6.6-12

Encl 3A - page 7

08-11-M CTS LCO 3.6.2.1 Actions and CTS LCO 3.6.2.3 Actions have been modified in converting to ITS LCO 3.6.6 Actions by the additional requirement to perform the action within "10 days from discovery of failure to meet the LCO." This requirement is established to limit the maximum time allowed for any combination of containment spray trains and containment cooling trains to be inoperable during any single contiguous occurrence of failing to meet the LCO. The purpose of the second Completion Time (i.e., 10 days from discovery) in the ITS LCO 3.6.6 Actions is to prevent alternating between Conditions in such a manner that operation could continue indefinitely without ever restoring systems to meet the LCO. As discussed in Section 1.3, "Completion Times," the Completion Time allows for an exception time to the normal "time zero" for beginning the allowed outage time "clock." This will result in establishing the "time zero" at the time the LCO was initially not met, instead of the time Condition A was entered. The 10 day Completion Time is an acceptable limitation on this potential to fail to meet the LCO indefinitely.

Encl 3B - page 7

08-11-M CTS LCO 3.6.2.1 Actions and CTS LCO 3.6.2.3 Actions have been modified in converting to ITS LCO 3.6.6 Actions, by the additional requirement to perform the action within "10 days from discovery of failure to meet the LCO."

APPLICABILITY:

DC - Yes
CP - No - CPSES current TS does not have a containment cooler specification.
WC - Yes
CA Yes

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC)

IV. SPECIFIC NO SIGNIFICANT HAZARDS CONSIDERATIONS

Q3.6.6-4

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

A provision, "within 10 days from discovery of failure to meet the LCO," has been added to the Completion Time for the ACTIONS with the "Containment Cooling System" inoperable. The CTS, "Containment Spray," and "Containment Cooling," systems require restoring the inoperable system to OPERABLE status within 72 hours. The CTS limits the inoperability of any combination of these two systems to 72 hours or it provides a maximum of 7 days for restoring one group of cooling fans to OPERABLE status when everything else is OPERABLE. NUREG-1431 provides a maximum of 10 days for not meeting the LCO. The 10 day provision in the Completion Time is considered appropriate based upon engineering judgment considering the low probability of coincident entry into two Conditions in this specification coupled with the low probability of an accident occurring during this time.

This proposed TS change has been evaluated and it has been determined that it involves NSHC. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92(c) as quoted below:

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

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

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

   The proposed change involves a provision, "within 10 days from discovery of failure to meet the LCO," being added to the Completion Time for the ACTIONS with the "Containment Cooling System" inoperable. The CTS, "Containment Spray," and "Containment Cooling," systems require restoring the inoperable system to OPERABLE status within 72 hours. The CTS limits the inoperability of any combination of these two systems to 72 hours or it provides a maximum of 7 days for restoring one group of cooling fans to OPERABLE status when everything else is OPERABLE. NUREG-1431 provides a maximum of 10 days for not meeting the LCO. The 10 day provision in the Completion Time is considered appropriate based upon engineering judgment considering the low probability of coincident entry into two Conditions in this specification coupled with the low probability of an accident occurring during this time. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation.

   The proposed change will make a provision for a maximum 10 day allowance for not meeting the LCO. The provision takes into account the capability of the remaining systems based upon the applicable Conditions entered. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Q3.6.6-4

NSHC LS2
(continued)

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

Analysis shows that [one train of the containment cooling together with one train of containment spray] can provide 100 percent of the required peak cooling capacity during the post accident Conditions. The provision to allow 10 days not meeting the LCO for one containment spray train inoperable, or one train of the required containment cooling trains inoperable, is acceptable taking into account the low probability of coincident entry into two Conditions coupled with the low probability of an accident occurring during this time. The provision also takes into account the capability of the remaining systems based upon the applicable Conditions entered. Thus, the proposed change does not involve a significant reduction in a margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

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

ADDITIONAL INFORMATION NO: Q 3.6.6-5 **APPLICABILITY:** DC, WC, CA

REQUEST:

DOC 8-08 LG
CTS 4.6.2.1.b
ITS SR 3.6.6.4 and Associated Bases

CTS 4.6.2.1.b specifies that the Containment Spray Pump shall be tested at a specific pump discharge pressure. ITS SR 3.6.6.4 specifies that the Containment Pump shall be tested but does not specify a specific pump test pressure. This information has been relocated to the Inservice Testing Program. DOC 8-08 LG justifies the relocation based on consistency with NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document.

Comment: Provide additional discussion and justification for this Less Restrictive change.

FLOG RESPONSE: The Containment Spray Pump descriptive information has been added to the Bases of ITS SR 3.6.6.4 instead of being relocated to the Inservice Testing Program. This is consistent with the treatment of other pump descriptive information found throughout the ITS.

In response to this comment, DOC 8-08-LG has been enhanced by the following:

"Moving these details to the Bases is consistent with other requirements specified in NUREG-1431, Rev. 1. The STS typically locate details such as specific flow rates and system operational modes in the Bases for the applicable requirement. This change moves to the Bases details that are not necessary to provide operational safety while retaining in technical specifications the basic requirements for maintaining OPERABILITY."

ATTACHED PAGES:

Encl 3A	7
Encl 3B	6
Encl 5B	B 3.6-42

CHANGE NUMBER	NSHC	DESCRIPTION
08-02	A	Consistent with NUREG-1431, the ACTION statement is revised by replacing the reference to restoring the CSS to OPERABLE status within 48 hours or be in COLD SHUTDOWN within the following 30 hours, with the requirement to be in COLD SHUTDOWN within 78 hours. The time allowed to be in cold shutdown has not changed. The requirements of the action statement have also not changed, since as discussed in the Bases, the extended interval to reach COLD SHUTDOWN allows 48 hours for restoration of the system OPERABILITY and an additional 36 hours to achieve COLD SHUTDOWN.
08-03	TR1	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-04	A	The LCOs for containment spray system and containment coolers are combined into one LCO per NUREG-1431.
08-05	LS12	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-06	LG	The details on flow testing for nozzle obstructions and specific actuation signals that apply for automatic actuations are moved to the Bases. This is acceptable as the requirement to test remains in the Technical Specification and this level of detail is not contained in NUREG-1431.
08-07		Not Used.
08-08	LG	The specific pump discharge pressure value would be moved to the ~~Inservice Testing Program.~~ Bases Insert Q3.6.6-5
08-09	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-10	A	ITS Condition F specifies two containment spray trains or any combination of three or more trains inoperable to enter 3.0.3. Even though this condition is not specified in the CTS, 3.0.3 would be entered.
08-11	~~LS2~~ M	A "from discovery of failure to meet the LCO provision" has been added to the Completion Time for one train of containment spray/cooling systems inoperable. This change is considered less restrictive in that the 10 days allowed in the ITS not to meet the LCO is greater than the CTS would allow.
08-12	M	Insert Q3.6.6-12
09-01	A	The DCPP units for the spray additive tank volume limits are changed from gallons to percent.

Insert Q3.6.6-4

Insert for 08-08-LG:

Moving these details to the Bases is consistent with other requirements specified in NUREG-1431, Rev. 1. The ISTS typically locate details such as specific flow rates and system operational modes in the Bases for the applicable requirement. This change moves to the Bases details that are not necessary to provide operational safety while retaining in technical specifications the basic requirements for maintaining OPERABILITY.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
08-02 A	This change revises the ACTION statement by replacing the reference to restoring the CSS to operable status within 48 hours or be in COLD SHUTDOWN within the following 30 hours, with the requirement to be in COLD SHUTDOWN within 78 hours.	Yes	Yes	Yes	Yes
08-03 TR1	The actuation surveillance is revised to clarify that an actual signal as well as a test signal may be used to verify actuation. The specific actuation signals that apply for automatic actuation are moved to the Bases.	No, LA 114/112 made this part of CTS.	Yes	Yes	Yes
08-04 A	The LCOs for CSS and containment coolers are combined into one LCO per NUREG-1431.	Yes	No, CPSES CTS does not have a containment cooler specification.	Yes	Yes
08-05 LS12	This CPSES specific change revises the frequency of the surveillance to verify unobstructed spray nozzles, from every 5 years to every 10 years.	No	Yes	No	No
08-06 LG	The details on flow testing for nozzle obstructions and specific actuation signals that apply for automatic actuations are moved to the Bases.	Yes	Yes	Yes	Yes
08-07	Not used.	N/A	N/A	N/A	N/A
08-08 LG	The specific pump discharge pressure value would be moved to the ~~Inservice Testing Program.~~ Bases Q3.6.6-5	Yes	No, containment spray pump parameters were moved to the TRM in LA 37/23.	Yes	Yes
08-09 LG	Moves the requirement that the 18 month verification of automatic containment spray actuation and containment spray pump actuation be performed during shutdown (plant outage) to the Bases.	No, CTS does not require during shutdown.	No, CTS does not require during shutdown.	Yes	Yes

BASES (Continued)

SR 3.6.6A.2

Operating each ~~[required] containment cooling train fan unit~~ CFCU for ≥ 15 minutes ensures that all trains are OPERABLE and that all associated controls are functioning properly. It also ensures that blockage, fan or motor failure, or excessive vibration can be detected for corrective action. The 31 day Frequency was developed considering the known reliability of the fan units and controls, the two train redundancy available, and the low probability of significant degradation of the ~~containment cooling train~~ CFCUs occurring between surveillances. It has also been shown to be acceptable through operating experience.

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.6A.3

Verifying that each required ~~containment cooling train ESW cooling flow rate to each cooling unit is~~CFCU is receiving the required component cooling water flow of ~~≥ [700]~~ 1650 gpm provides assurance that the design flow rate assumed in the safety analyses will be achieved (Ref. ~~3~~ 4). The component cooling water (CCW) system is hydraulically balanced during normal operation to ensure that at least 1650 gpm is delivered to each CFCU during a design bases event (DBA). The hydraulic system balance considers normal system alignments and the potential for any single active failure.

Operation of the CFCUs is permitted with lower CCW flow to the CFCUs during ASME Section XI testing or decay heat removal in MODE 4 with the residual heat removal heat exchangers in service. To support this conclusion, a calculation was performed to evaluate containment heat removal with one train of containment spray OPERABLE and reduced CCW flow to three CFCUs. The calculation concluded that this configuration would provide adequate heat removal to ensure that the maximum design pressure of containment was not exceeded during a DBA in MODE 1. This analysis also determined that a single failure could not be tolerated during this condition and still assure that the maximum design pressure of containment would not be exceeded. (Ref. 6)

The Frequency was developed considering the known reliability of the Cooling Water System, the two train redundancy available, and the low probability of a significant degradation of flow occurring between surveillances.

Q3.6.6-5

SR 3.6.6A.4

Verifying each containment spray pump's developed head at (205 PSID) the flow test point is greater than or equal to the required developed head ensures that spray pump performance has not degraded during the cycle. Flow and differential pressure are

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.6-7 **APPLICABILITY:** DC, WC, CA

REQUEST:

DOC 10-01 LG
CTS 3.6.2.3
ITS B3.6.6 Bases

CTS 3.6.2.3 specifies what constitutes an OPERABLE Containment Cooling System. This information has been relocated to ITS 3.6.6 Bases. DOC 10-01 LG justifies the relocation based on consistency with NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document. See Comment 3.6.6-8 for additional concerns in this area for DCPP.

Comment: Provide additional discussion and justification for this Less Restrictive change. See Comment Number 3.6.6-8.

FLOG RESPONSE: DOC 10-01 LG was revised to add the following wording: "The definition of OPERABILITY and ITS LCO 3.6.6, 'Containment Spray and Cooling Systems,' are sufficient to describe the levels of equipment required for safe operation of the plant. As such, these details on the number of containment cooling fans are not required to be in the TS." The OPERABILITY details are moved to the Bases LCO Section.

For Callaway and Wolf Creek, ITS 3.6.6 Bases was revised to read: "A containment cooling train typically includes cooling coils, dampers, two fans, instruments, and controls to ensure an OPERABLE flow path."

See DCPP response to Comment 3.6.6-8 for applicability of DOC 10-01 LG.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.6-8 **APPLICABILITY:** DC

REQUEST:

DOC 10-01 LG
JFD 3.6-14
CTS 3.6.2.3
STS LCO 3.6.6
ITS LCO 3.6.6 and Associated Bases.

DCPP CTS 3.6.2.3 specifies what constitutes an OPERABLE Containment Cooling System. An OPERABLE Containment Cooling System consists of either at least four containment fan coolers (CFCUs) or at least three CFCUs, each of the three supplied from a different vital bus. STS LCO 3.6.6 is modified in ITS LCO 3.6.6 to conform to the CTS. This deviates from NUREG-1431 and the industry's Writer's Guide in which the LCO describes as simply as possible the lowest functional capability of the system and relegates the details of what constitutes an OPERABLE system to the Bases. JFD 3.6-14 does not adequately justify this deviation. In addition, DOC 10-01 LG also applies since this information is also relocated to the Bases. See Comment Number 3.6.6-7.

Comment: Revise the CTS and ITS markups to show that this level of detail is relocated to the Bases. See Comment Number 3.6.6-6. Otherwise, provide additional discussion to justify the deviation from the STS and Writer's Guide.

FLOG RESPONSE: DOC 10-01-LG was not used in the DCPP markup because it is believed that the number of CFCUs is important to retain in the LCO. The DCPP plant design uses five CFCUs distributed on three vital buses. While a train is two functional CFCUs, the concept of trains was not used in the CTS. Instead, the CTS listed two conditions which reflect a fully OPERABLE system; any four CFCUs or three CFCUs, each on a different vital bus. This description allows the use of the five CFCUs and the three vital buses to achieve greater operational flexibility. Single failure analysis shows that no single failure will result in less than the required two fully functional CFCUs. The use of a simple two train description would be a more restrictive change.

JFD 3.6-14 has been revised to add the following discussion: "The DCPP design provides five CFCUs positioned on three vital electrical buses. This arrangement is such that two conditions reflect a fully OPERABLE system: 1) any four CFCUs; or 2) three CFCUs, each on a different vital bus. This description allows the use of five CFCUs and the three vital buses to achieve greater operational flexibility. Single failure analysis shows that no single failure will result in less than the required two fully functional CFCUs."

ATTACHED PAGES:

Encl 6A 2

For Information Only Pages:

Encl 3B page 8

CHANGE NUMBER	JUSTIFICATION
3.6-5	This change is in accordance with TSTF-45, Rev. 1 and revises SR 3.6.3.3 and SR 3.6.3.4 to specify that only containment isolation valves that are not locked, sealed, or otherwise secured are required to be verified closed. The position of the locked, sealed, or otherwise secured valves was verified before the valves were locked, sealed, or otherwise secured.
3.6-6	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-7	This change is in accordance with TSTF-46, Rev. 1 and revises SR 3.6.3.5 to delete the reference to verifying the isolation time of "each power operated" containment isolation valve and only require verification of each "automatic isolation valve." Valves credited as containment isolation valves which are power operated (i.e., can be remotely operated) that do not receive a containment isolation signal do not have as isolation time as assumed in the accident analyses since they require operator action. Therefore, deleting reference to power operated isolation valve time testing reduces the potential for misinterpreting the requirements of this SR while maintaining the assumptions of the accident analyses.
3.6-8	Revises the Completion Time for the restoration of containment pressure from 1 hour to [4] hours. The [4] hour Completion Time is consistent with the CTS. The [4] hours [ ]allows the adequate time to take all Required Actions in a controlled manner.
3.6-9	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-10	Replaces the chemical additive tank volume limits in gallons with a tank level limits in percent [ ].
3.6-11	A new Note is added to ITS 3.6.3, Condition A.2 [and C.2] in accordance with Traveler WOG-91. The additional Note applies to isolation devices that are locked, sealed or otherwise secured in position and allows these devices to be verified closed by use of administrative means. It is sufficient to assume that initial establishment of component status (e.g., isolation valves closed) was performed correctly. Subsequently, verification is intended to ensure the component has not been inadvertently repositioned. Given that the function of locking, sealing, or securing components is to ensure the same avoidance of inadvertent repositioning, the periodic reverification should only be a verification of the administrative control that ensures that the component remains in the required state. It would be inappropriate to remove the lock, seal, or other means of securing the component solely to perform an active verification of the required state.
3.6-12	Consistent with SR 3.6.3.8, which provides that actuation position testing is not required for valves locked, sealed, or otherwise secured in their required position under administrative control, this change would provide that isolation time testing is not required for automatic containment isolation valves that are locked, sealed, or otherwise secured in their required position under administrative control. This change is consistent with WOG-91.
3.6-13	A clarifying note is added to SR 3.6.3.7 that would allow that leakage rate testing for containment purge valves with resilient seals is not required when the penetration flow path is isolated by a leak tested blind flange.
3.6-14	This change would incorporate plant specific operability criteria for containment fan cooler units required to meet design functional requirements. These requirements are contained in the CTS.
3.6-15	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-16	Not applicable to DCPP. See Conversion Comparison Table (Enclosure 6B).
3.6-17	The ACTIONS and SRs of ITS 3.6.3 are modified to reflect DCPP current license bases allowance to open at one time any 2 of 3 the DBA qualified 48 inch purge supply and/or exhaust flow paths and 12 inch vacuum/pressure relief flow paths.

Insert for 3.6-14:

The DCPP design provides 5 CFCUs positioned on three vital electrical buses. This arrangement is such that two conditions reflect a fully OPERABLE system: 1) any four CFCUs; or 2) three CFCUs, each on a different vital bus. This description allows the use of 5 CFCUs and the three vital buses to achieve greater operational flexibility. Single failure analysis shows that no single failure will result in less than the required two fully functional CFCUs.

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION 03.6.7-6 or Containment Spray	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
09-05 TR1	The specific actuation signal (a [SI] actuation test signal) for the surveillance was replaced with a generic words that allow credit for an actual or simulated actuation.	Yes	Yes	Yes	~~No~~ Yes
09-06 LG	This change removes specific details in the SR with regard to verifying flow path and the RWST water flow ~~rates of between 50 and 100 gpm through the eductor test loops,~~ and adds a general requirement to verify flow capability through each eductor.]	~~No, CTS does not contain this detail.~~ Yes, surveillance details are moved to the Bases. 03.6.7-9	Yes, surveillance details are moved to the Bases.	Yes, surveillance details are moved to the Bases.	No, CTS does not have this system.
09-07 M	The surveillance for DCPP is modified to require demonstration of flow through each solution flow path.	Yes	No	No	No
10-01 LG	Moves details regarding the number of fans in each cooling system train to the Bases.	No, CTS based on different design.	No, CPSES does not have this specification.	Yes	Yes
10-02 LG	Details regarding the automatic functions to be tested and the cooling water flow rate would be moved to the Bases.	No, CTS does not have this detail.	No, CPSES does not have this specification.	Yes	Yes
10-03 LG	The DCPP specific Note cautioning that CFCU flow rate may not be achieved during Section XI testing and RHR operation is relocated to the Bases.	Yes	No	No	No
11-01 LS13	This Note is added to the ACTIONS to allow containment isolation valves that are required to be closed, [ ] to be opened intermittently under administrative controls.	Yes	Yes	Yes	Yes
11-02 A	This Note is added to the ACTIONS to allow separate Condition entry for each penetration flow path.	Yes	Yes	Yes	Yes
11-03 A	This Note is added to the ACTIONS to enter applicable Conditions and Required ACTIONS for systems made inoperable by containment isolation valves.	Yes	No, a cautionary note is already part of CTS.	Yes	Yes

ADDITIONAL INFORMATION NO: Q 3.6.6-11 **APPLICABILITY:** DC, WC

REQUEST:

DOC 10-02 LG
JFD 3.6-21
CTS 4.6.2.3.b
ITS SR 3.6.6.8 and Associated Bases

CTS 4.6.2.3.b requires at least once per 18 months by verifying that on a safety injection test signal the Containment Cooling System fans start in slow speed or if operating, shift to slow speed. DOC 10-02 LG relocates the requirements to start in slow speed or if operating shift to slow speed to ITS B3.6.6 Bases SR 3.6.6.8. WCGS ITS B3.6.1 Bases SR 3.6.6.8 does not show that the CTS requirement has been incorporated. WCGS ITS B3.6.6 Bases - SR 3.6.6.8 states that the "SR requires verification that each required containment cooling train activates or shifts speed...". This statement does not meet the current licensing basis. The train could start on high speed or if operating in slow speed, shift to high speed and still meet the SR.

Comment: Revise the ITS Bases markup to conform to the CTS requirements.

FLOG RESPONSE: The ITS B3.6.6 Bases Background states: "In post accident operation following an actuation signal, the Containment Cooling System fans are designed to start automatically in slow speed if not already running. If running in high (normal) speed, the fans automatically shift to slow speed." With the information in the Background Section and the ITS SR 3.6.6.7 Bases wording for verification that each fan in the containment cooling train actuates upon receipt of an actual or simulated safety injection signal, it was believed that sufficient wording was in the ITS Bases to conform to the CTS requirements. To ensure clarification of the CTS surveillance requirements, the ITS SR 3.6.6.7 Bases will be revised to specifically incorporate the CTS SR 4.6.2.3.b wording.

For DCPP, DOC 10-02 LG is not applicable. See Enclosure 3B, "CTS does not have this detail." This question does not apply to DCPP.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.6-12 **APPLICABILITY:** DC

REQUEST:

JFD 3.6-14
CTS 3.6.2.3 ACTION b
ITS 3.6.6 ACTIONS A, B, C, D, E and Associated Bases.

DCPP CTS 3.6.2.3 ACTION b specifies the remedial measures to be taken with one Containment Spray System inoperable and two CFCU OPERABLE. Based on the structure and application of the ITS, CTS 3.6.2.3 ACTION b is encompassed by ITS 3.6.6 Actions A, B, C, and E. ITS 3.6.6 ACTION D also seems to address this condition of one inoperable Containment Spray and at least two CFCUs OPERABLE. However, the Required Actions and Completion Times of ITS 3.6.6 ACTION D cannot be found in CTS 3.6.2.3 ACTIONS, and are More Restrictive changes to the CTS and ITS.

Comment: Revise the CTS markup to show the addition of ITS 3.6.6 ACTION D and provide the appropriate discussion and justification for this More Restrictive change.

FLOG RESPONSE: The CTS markup of LCO 3.6.2.3 has been revised to add a new ACTION reflecting ITS LCO 3.6.6 ACTION D. DOC 08-12 M has been added to Enclosures 3A and 3B to describe and justify this addition.

ATTACHED PAGES:

Encl 2	3/4 6-13
Encl 3A	7
Encl 3B	7

For Information Only Pages:

Encl 5A	3.6-18, 19

Q3.6.0-1
01-07-A
08-04-A

LIMITING CONDITION FOR OPERATION

3.6.2.3 The Containment Cooling System shall be OPERABLE with either:

a. At least four containment fan cooler units (CFCUs), or

b. At least three CFCUs, each of the three supplied from a different vital bus.

APPLICABILITY: MODES 1, 2, 3, and 4.

M
08-11-L~~S~~2
Q3.6.6-4

ACTION: *

a. With the requirements of the above specification not satisfied, but at least two CFCUs OPERABLE and both Containment Spray Systems OPERABLE, restore the Containment Cooling System to OPERABLE status within 7 days, otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With the requirements of the above specification not satisfied and one Containment Spray System inoperable, but at least two CFCUs OPERABLE, restore the inoperable Containment Spray System to OPERABLE status within 72 hours otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the Containment Cooling System to OPERABLE status within 7 days of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

08-12-M
08-10-A

Insert Q3.6.6-12

(new) With one Containment Spray System and one or less CFCUs operable or two Containment Spray Systems inoperable, enter LCO 3.0.3.

, or one or less CFCUs OPERABLE

SURVEILLANCE REQUIREMENTS

Q3.6.6-2

4.6.2.3 Each containment fan cooler unit shall be demonstrated OPERABLE:

a. At least once per 31 days by:

1) Starting each containment fan cooler unit and verifying that each containment fan cooler unit operates for at least 15 minutes.

M
08-11-L~~S~~2
Q3.6.6-4

* Additionally, a completion time of 10 days from discovery of failure to meet the conditions of 3.6.2.1 and 3.6.2.3.

CHANGE NUMBER	NSHC	DESCRIPTION
08-02	A	Consistent with NUREG-1431, the ACTION statement is revised by replacing the reference to restoring the CSS to OPERABLE status within 48 hours or be in COLD SHUTDOWN within the following 30 hours, with the requirement to be in COLD SHUTDOWN within 78 hours. The time allowed to be in cold shutdown has not changed. The requirements of the action statement have also not changed, since as discussed in the Bases, the extended interval to reach COLD SHUTDOWN allows 48 hours for restoration of the system OPERABILITY and an additional 36 hours to achieve COLD SHUTDOWN.
08-03	TR1	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-04	A	The LCOs for containment spray system and containment coolers are combined into one LCO per NUREG-1431.
08-05	LS12	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-06	LG	The details on flow testing for nozzle obstructions and specific actuation signals that apply for automatic actuations are moved to the Bases. This is acceptable as the requirement to test remains in the Technical Specification and this level of detail is not contained in NUREG-1431.
08-07		Not Used.
08-08	LG	The specific pump discharge pressure value would be moved to the ~~Inservice Testing Program.~~ Bases Insert Q3.6.6-5
08-09	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
08-10	A	ITS Condition F. specifies two containment spray trains or any combination of three or more trains inoperable to enter 3.0.3. Even though this condition is not specified in the CTS, 3.0.3 would be entered.
08-11	~~LS2~~ M	A "from discovery of failure to meet the LCO provision" has been added to the Completion Time for one train of containment spray/cooling systems inoperable. This change is considered less restrictive in that the 10 days allowed in the ITS not to meet the LCO is greater than the CTS would allow.
08-12	M	Insert Q3.6.6-12
09-01	A	The DCPP units for the spray additive tank volume limits are changed from gallons to percent.

Insert Q3.6.6-4

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
08-10 A	ITS Condition F. specifies two containment spray trains or any combination of three or more trains inoperable to enter 3.0.3. Even though this condition is not specified in the CTS, 3.0.3 would be entered.	Yes	No, CPSES has only two containment spray trains covered by this specification. Loss of both of these trains is outside the CTS and 3.0.3 is automatically invoked.	Yes	Yes
08-11 ~~LS2~~ M	A "from discovery of failure to meet the LCO provision" has been added to the Completion Time for one train of containment spray/cooling systems inoperable. This change is considered less restrictive in that the 10 days allowed in the ITS not to meet the LCO is greater than the CTS would allow. → Insert CP3.6.6-4	Yes	No, CPSES CTS does not have a curtailment cooler specification.	Yes	Yes
09-01 A	The units for the spray additive tank volume limits are changed from gallons to percent.	Yes	No	No	No
09-02 LG	The OPERABILITY of the spray additives educators is contained within the definition of OPERABILITY for the spray additive system as described in the Bases.	Yes	Yes	Yes	Yes
09-03 A	This change revises the ACTION statement by replacing the reference to restoring the spray additive system to OPERABLE status within 48 hours or be in COLD SHUTDOWN within the following 30 hours, with the requirement to be in COLD SHUTDOWN within 78 hours.	Yes	Yes	Yes	Yes
09-04 A	This change adds the phrase "that is not locked, sealed, or otherwise secured in position" with regard to which valves require actuation testing.	Yes	Yes	No, current practice per CTS SR 4.6.2.2.	No, current practice per CTS SR 4.6.2.2.

→ 08-12 M (Insert) CP3.6.6-12

Encl 2 - page 3/4 6-13

CTS LCO 3.6.2.3 (new) ACTION

With one required containment spray train and one required CFCU train inoperable such that a minimum of two CFCUs remain OPERABLE, restore one required train of containment spray to OPERABLE or restore one required train of CFCU to OPERABLE such that four CFCUs or three CFCUs each powered by a separate vital bus are OPERABLE within 72 hours.

Encl 3A - page 7

08-12-M A new ACTION is added to CTS LCO 3.6.2.3 which reflects the combination of containment fan cooling and containment spray into a single LCO for DCPP. Consistent with NUREG-1431, this adds a more restrictive ACTION for the condition in which one train of containment spray is inoperable and one train of containment fan cooling inoperable (such that at least two CFCUs are OPERABLE). This change provides limits for the time that both elements of containment cooling maybe degraded.

Encl 3B - page 7

08-12-M A new ACTION is added to CTS LCO 3.6.2.3 which reflects the combination of containment fan cooling and containment spray into a single LCO for DCPP. Consistent with NUREG-1431, this adds a more restrictive ACTION for the condition in which one train of containment spray is inoperable and one train of containment fan cooling inoperable.

APPLICABILITY:		
	DC	Yes
	CP	No
	WC	No
	CA	No

3.6 CONTAINMENT SYSTEMS

3.6.6A Containment Spray and Cooling Systems ~~(Atmospheric and Dual)~~ PS
~~(Credit taken for iodine removal by the Containment Spray System)~~

LCO 3.6.6A Two containment spray trains and two containment fan cooling unit (CFCU) trains with either:

a. Four CFCUs; or 3.6-14

b. Three CFCUs, each of the three supplied from a different vital bus,

shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One containment spray train inoperable.	A.1 Restore containment spray train to OPERABLE status.	72 hours AND 10 days from discovery of failure to meet the LCO
B. Required Action and associated Completion Time of Condition A not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 5.	6 hours 84 hours
C. One required ~~containment cooling~~ CFCU train inoperable such that a minimum of two CFCUs remain OPERABLE.	C.1 Restore required ~~containment cooling~~ CFCU train to OPERABLE status.	7 days AND 3.6-14 10 days from discovery of failure to meet the LCO

(continued)

ACTIONS (Continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. ~~Two~~ One required containment ~~cooling trains~~ spray train inoperable and one required CFCU train inoperable such that a minimum of two CFCUs remain OPERABLE.	D.1 Restore one required containment ~~cooling~~ spray train to OPERABLE status. OR D.2 Restore one CFCU train to OPERABLE status such that four CFCUs or three CFCUs, each supplied by a different vital bus, are OPERABLE.	72 hours 3.6-14 72 hours Red line Q3.6.0-2
E. Required Action and associated Completion Time of Condition C or D not met.	E.1 Be in MODE 3. AND E.2 Be in MODE 5.	6 hours 36 hours
F. Two containment spray trains inoperable. OR ~~Any combination of three or more trains inoperable.~~ One containment spray train inoperable and two CFCU trains inoperable such that one or less CFCUs remain OPERABLE. OR One or less CFCUs OPERABLE	F.1 Enter LCO 3.0.3.	Immediately 3.6-14

ADDITIONAL INFORMATION NO: Q 3.6.6-13 **APPLICABILITY:** DC, WC, CA

REQUEST:

CTS 4.6.2.3a.1
ITS SR 3.6.6.2 and Associated Bases

CTS 4.6.2.3.a.1 verifies that containment cooling fan units are started and operated for at least 15 minutes at least once per 31 days. The corresponding ITS surveillance is ITS SR 3.6.6.2. The CTS and ITS are not consistent with each other. CTS 4.6.2.3.a.1 for Callaway and WCGS requires the CTS surveillance be performed on "each non-operating fan group" while ITS SR 3.6.6.2 requires the SR be performed on "each required containment cooling fan" for WCGS and "each containment cooling fan" for Callaway. CTS 4.6.2.3.a.1 for DCPP requires the CTS surveillance be performed on each CFCU while the ITS requires it be performed on each required CFCU. Based on ITS B3.6.6 Bases - Background description of the Containment Cooling System, the CTS to ITS conversion for this SR would be a More Restrictive change for WCGS and Callaway (CTS testing only non-operating to ITS testing of all fan units) and a Less Restrictive change for DCPP (CTS testing all CFCUs to ITS testing of a minimum of three CFCUs). No justifications are provided for these changes.

Comment: Revise the ITS markup to conform to the CTS, or provide discussions and justifications for these Less Restrictive or More Restrictive changes.

FLOG RESPONSE: WCGS has reviewed the ITS and Bases and determined that the bracketed ([ ]) word "required" can be deleted since the LCO requires all components to be OPERABLE.

CTS 4.6.2.3.a.1 states: "Starting each non-operating fan group from the control room, and verifying that each fan group operates for at least 15 minutes." For WCGS and Callaway, the CTS SR 4.6.2.3.a.1 is performed by starting any non-operating fan unit and ensuring that it runs for greater than 15 minutes. For those fan units that are already operating when the SR is performed, surveillance procedures require that the operating fan units be verified that they are running for greater than 15 minutes. This is equivalent to the ITS SR 3.6.6.2, which would require starting any non-operating fan and verify operating for greater than 15 minutes and the operating fans are verified operating for greater than 15 minutes. Therefore, CTS SR 4.5.2.3.a.1 is considered equivalent to the ITS SR 3.6.6.2 and no justifications are needed.

For DCPP, no change in the ITS is necessary. The CTS LCO 3.6.2.3 states: "at least four containment fan cooler units (CFCUs), or at least three CFCUs, each of the three supplied from a different vital bus" shall be OPERABLE. There are five installed CFCUs at each of the Diablo Canyon Units. The DCPP license has always implicitly contained the concept of "required." See response to 3.6.6-8 for description of changes made to JFD 3.6-14 which clarify and justify this arrangement.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.6-15 **APPLICABILITY:** DC, WC, CA

REQUEST:

STS B3.6.6A Bases - BACKGROUND
ITS B3.6.6 Bases - BACKGROUND and REFERENCES

STS B3.6.6 Bases - BACKGROUND states that the Containment Spray and Cooling Systems are designed to meet the requirements of 10 CFR 50 Appendix A, GDC 38, 39, 40, 41, 42, 43 or other documents that were appropriate at the time of licensing. ITS B3.6.6 Bases - BACKGROUND deletes a number of the GDCs. Since ITS changes to the STS Bases were made based on changes to the STS, on plant specific system design, or on current licensing basis as specified in the CTS, the deletions do not seem to fall into any of these categories based on the particular STS selected. The staff believes that these GDCs provide a useful description of the system design. See Comment Number 3.6.6-16.

Comment: Revise ITS B3.6.6 Bases - BACKGROUND to retain the deleted GDCs or provide a discussion and justification for their deletion. See Comment Number 3.6.6-16.

FLOG RESPONSE: The subject sentence in the ITS Bases will be revised to retain the listing of the GDCs in the original STS wording, but the sentence/discussion will be revised appropriately to explain individual plant exceptions to those GDCs.

Plant Specific Response: For Diablo Canyon, the sentence will be revised to read:

The Containment Spray and Containment Cooling systems are designed to meet the requirements of AEC 1967 GDC 37, "Engineered Safety Features Basis for Design"; GDC 49, "Containment Design Basis"; GDC 52, "Containment Heat Removal Systems"; GDC 58, "Inspection of Containment Pressure-Reducing Systems"; GDC 59, "Testing of Containment Pressure-Reducing Systems Components"; GDC 60, "Testing of Containment Spray Systems"; GDC 61, "Testing of Operational Sequence of Containment Pressure-Reducing Systems"; GDC 62, "Inspection of Air Cleanup Systems"; GDC 63, "Testing of Air Cleanup Systems Components"; GDC 64, "Testing Air Cleanup Systems"; and GDC 65, "Testing of Operational Sequence of Air Cleanup Systems.

As discussed in FSAR Appendix 3.1A, the designs of these systems conform to the intent of 10 CFR 50, Appendix A (Ref. 1), GDCs 38, "Containment Heat Removal"; GDC 39, "Inspection of Containment Heat Removal Systems"; GDC 40, "Testing of Containment Heat Removal Systems"; GDC 41, "Containment Atmosphere Cleanup"; GDC 42, "Inspection of Containment Atmosphere Cleanup Systems"; and GDC 43, "Testing of Containment Atmosphere Cleanup Systems."

ATTACHED PAGES:

Encl 5B B3.6-35

B 3.6 CONTAINMENT SYSTEMS

B 3.6.6A Containment Spray and Cooling Systems ~~(Atmospheric and Dual)~~
~~(Credit taken for iodine removal by the Containment Spray System)~~

BASES

BACKGROUND

The Containment Spray and Containment Cooling systems provide containment atmosphere cooling to limit post accident pressure and temperature in containment to less than the design values. Reduction of containment pressure and the iodine removal capability of the spray reduces the release of fission product radioactivity from containment to the environment, in the event of a Design Basis Accident (DBA), to within limits. ~~The Containment Spray and Containment Cooling systems are designed to meet the requirements of 10 CFR 50, Appendix A, GDC 38, "Containment Heat Removal," GDC 39, "Inspection of Containment Heat Removal Systems," GDC 40, "Testing of Containment Heat Removal Systems," GDC 41, "Containment Atmosphere Cleanup," GDC 42, "Inspection of Containment Atmosphere Cleanup Systems," and GDC 43, "Testing of Containment Atmosphere Cleanup Systems" (Ref. 1). or other documents that were appropriate at the time of licensing (identified on a unit specific basis).~~

Insert
Q3.6.6-15

The Containment Cooling System and Containment Spray System are ~~is an~~ Engineered Safety Feature (ESF) systems. They are ~~it is~~ designed to ensure that the heat removal capability required during the post accident period can be attained. The Containment Spray System and the Containment Cooling System provide ~~redundant~~ diverse methods to limit and maintain post accident conditions to less than the containment design values.

Containment Spray System

The Containment Spray System consists of two separate trains of equal capacity, each capable of meeting the design bases. Each train includes a containment spray pump, spray headers, nozzles, valves, and piping. Each train is powered from a separate ESF bus. The refueling water storage tank (RWST) supplies borated water to the Containment Spray System during the injection phase of operation. In the recirculation mode of operation, containment spray ~~pump suction is transferred from the RWST to the containment sumps~~ is supplied by manual realignment of the residual heat removal (RHR) pumps after the RWST is empty.

The Containment Spray System provides a spray of cold borated water mixed with sodium hydroxide (NaOH) from the spray additive tank into the upper regions of containment to reduce the containment pressure and temperature, and to reduce fission products from the containment atmosphere during a DBA. The RWST solution temperature is an important factor in determining the heat removal capability of the Containment Spray System during the injection phase. In the recirculation mode of operation, heat is removed from the containment sump water by the ~~residual heat~~

(Continued)

ITS B3.6.6 - BACKGROUND (page B3.6-35)

The Containment Spray and Containment Cooling systems are designed to meet the requirements of AEC 1967 GDC 37, "Engineered Safety Features Basis for Design;" GDC 49, "Containment Design Basis;" GDC 52, "Containment Heat Removal Systems;" GDC 58, "Inspection of Containment Pressure-Reducing Systems;" GDC 59, "Testing of Containment Pressure-Reducing Systems Components;" GDC 60, "Testing of Containment Spray Systems;" GDC 61, "Testing of Operational Sequence of Containment Pressure-Reducing Systems;" GDC 62, "Inspection of Air Cleanup Systems;" GDC 63, "Testing of Air Cleanup Systems Components;" GDC 64, "Testing Air Cleanup Systems;" and GDC 65, "Testing of Operational Sequence of Air Cleanup Systems.

As discussed in FSAR Appendix 3.1A, the designs of these systems conform to the intent of 10 CFR 50, Appendix A (Ref. 1), GDCs 38, "Containment Heat Removal;" GDC 39, "Inspection of Containment Heat Removal Systems;" GDC 40, "Testing of Containment Heat Removal Systems;" GDC 41, "Containment Atmosphere Cleanup;" GDC 42, "Inspection of Containment Atmosphere Cleanup Systems;" and GDC 43, "Testing of Containment Atmosphere Cleanup Systems."

ADDITIONAL INFORMATION NO: Q 3.6.6-17 **APPLICABILITY:** DC

REQUEST:

STS B3.6.6A Bases -APPLICABLE SAFETY ANALYSES
ITS B3.6.6 Bases - APPLICABLE SAFETY ANALYSES

The second paragraph in STS B3.6.6A Bases - APPLICABLE SAFETY ANALYSES describes briefly the containment pressure and temperature limits used to design the Containment Spray and Cooling Systems. A statement in the paragraph refers the users to the Bases for LCO 3.6.4 "Containment Pressure" and LCO 3.6.5 "Containment Temperature" for a more detailed discussion. DCPP ITS B3.6.6 Bases - APPLICABLE SAFETY ANALYSES deletes this referral statement. Since ITS changes to the STS Bases were made based on changes to the STS, on plant specific system design, or on current licensing basis as specified in the CTS, the deletion does not seem to fall into any of these categories. The staff believes the statement provides the user with the location of additional useful information.

Comment: Retain the deleted STS sentence.

FLOG RESPONSE: The ITS B3.6.6 Bases - APPLICABLE SAFETY ANALYSIS has been revised. The STS statement in the second paragraph referring to Bases for LCO 3.6.4, "Containment Pressure," and LCO 3.6.5, "Containment Temperature," for a more detailed discussion has been added to the ITS text.

ATTACHED PAGES:

Encl 5B B3.6-37

BASES (Continued)

pressurizer compartment, ~~and instrument tunnel~~ reactor coolant pumps, and outside the secondary shield in the lower areas of containment.

BACKGROUND (continued)

During normal operation, ~~all four fan units~~ three CFCUs are operating. The fans are normally operated at high speed with ~~ESW~~ CCW supplied to the cooling coils. The ~~Containment Cooling System, operating in conjunction with the Containment Ventilation and Air Conditioning systems, is~~ CFCUs are designed to limit the ambient containment air temperature during normal unit operation to less than the limit specified in LCO 3.6.5, "Containment Air Temperature." This temperature limitation ensures that the containment temperature does not exceed the initial temperature conditions assumed for the DBAs.

In post accident operation following an actuation signal, the ~~Containment Cooling System fans~~ CFCUs are designed to start automatically in slow speed if not already running. If running in high (normal) speed, the fans automatically shift to slow speed. The fans are operated at the lower speed during accident conditions to prevent motor overload from the higher mass atmosphere. The temperature of the ~~ESW~~ CCW is an important factor in the heat removal capability of the fan units.

APPLICABLE SAFETY ANALYSES

The Containment Spray System and Containment Cooling System limits the temperature and pressure that could be experienced following a DBA. The limiting DBAs considered are the loss of coolant accident (LOCA) and the main steam line break (MSLB). The LOCA and MSLB are analyzed using computer codes designed to predict the resultant containment pressure and temperature transients. No DBAs are assumed to occur simultaneously or consecutively. The postulated DBAs are analyzed with regard to containment ESF systems, assuming the ~~loss of one~~ worst case single failure. ~~containment spray train for LOCA and the failure to close of one MSIV for the SLB ESF bus, which are is the worst case single active failure for the respective DBAs. [Ref. 3] and results in one train of the Containment Spray System and Containment Cooling System being rendered inoperable.~~ For the LOCA case, the worst single failure is the failure of one SSPS train, which results in only one CSP and two CFCUs available. For SLB case, the worst single failure is the failure of one MSIV to close with two CSP and three CFCUs operating.

The analysis and evaluation show that under the worst case scenario, the highest peak containment pressure is ~~46.12~~ 42.25 psig (experienced during an ~~LOCA~~ MSLB at 30% power) compared to an allowable 47 psig. The analysis shows that the peak containment temperature is ~~340.85~~ 326°F (experienced during an MSLB at 70% power) and is compared to the environmental qualifications of plant equipment. Both results meet the intent of the design basis. ~~(See the Bases for LCO 3.6.4, "Containment Pressure," and LCO 3.6.5 for a detailed discussion.)~~ The analyses and evaluations assume a unit specific power level of ~~100~~ 102% for the LOCA with one containment spray train and two CFCUs operating. The limiting case MSLB analyses and evaluations

Q 3.6.0-2

remove strike-out Q 3.6.6-17

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.6-19 **APPLICABILITY:** DC

REQUEST:

STS B3.6.6A Bases - LCO
ITS B3.6.6 Bases - LCO

STS B3.6.6A Bases - LCO describes what constitutes an OPERABLE Containment Spray System. The description includes the automatic transferring of the pump suction from the RWST to the containment sump. At DCPP this transferring of the pump suction is done manually, which is acceptable. However, ITS B3.6.6 Bases - LCO deletes all mention of this capability. The staff requires that this be retained in ITS B3.6.6 Bases - LCO because the ability or capability to transfer the pump suction constitutes part of the description of system OPERABILITY.

Comment: Retain the STS wording modified by DCPP plant specific design features.

FLOG RESPONSE: The requested change for DCPP would be technically incorrect. The DCPP design provides for the spray rings being aligned to an available RHR pump. The decision to do so is one made by the Technical Support Center. Issues associated with this transfer are the subject of LAR 98-03 (3/18/98). This LAR also submitted wording changes to the ITS LCO 3.6.6 Bases (Background and Applicable Safety Analysis Section) providing DCPP plant specific wording associated with this transfer. The following wording is currently under staff review as part of LAR 98-03:

Background: Containment Spray is not required to be actuated during recirculation phase of a LOCA, but may be actuated at the discretion of the Technical Support Center. During the recirculation phase of a LOCA, the Containment Spray System must be capable of transferring the spray function to an RHR System taking suction from the containment sump. OPERABILITY of valves 9003A and B, and the capability to close valves 8809A and B to divert water from the RCS to the spray headers, will ensure that this capability exists.

Applicable Safety Analysis: Analyses and evaluation show that containment spray is not required during the recirculation phase of a LOCA (Ref. 7). If only one RHR pump is available during the recirculation phase of a LOCA, it may not be possible to obtain significant containment spray without closing valves 8809A or B. If recirculation spray is used with only one train of RHR in operation, ECCS flow to the reactor will be reduced, but analysis has shown that the flow to the reactor in this situation is still in excess of that needed to supply the required core cooling.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.6-20 **APPLICABILITY:** DC

REQUEST:

STS 3.6.6A Bases - APPLICABILITY
ITS B3.6.6 Bases - APPLICABILITY

The second paragraph of STS B3.6.6.A Bases - APPLICABILITY describes why the Containment Spray and Cooling Systems are not required to be OPERABLE in MODES 5 and 6. DCPP ITS B3.6.6 Bases - APPLICABILITY deletes the reference to Containment Cooling Systems from this paragraph. Thus, no reason is provided in the Bases as to why the Containment Cooling System is not required to be OPERABLE in MODES 5 and 6. In order for the Bases to be complete, this reference should be retained.

Comment: Revise the ITS markup to retain the reference to Containment Cooling System not be required to be OPERABLE in MODES 5 and 6.

FLOG RESPONSE: The words in the second paragraph of STS B3.6.6.A Bases - APPLICABLITY ("...and the containment cooling system are...") have been added to the DCPP ITS B3.6.6 Bases - APPLICABLITY text, and the word "is" has been removed.

ATTACHED PAGES:

Encl 5B B3.6-39

BASES (Continued)

LCO

During a DBA LOCA, a minimum of ~~one containment cooling train~~ two CFCUs and one containment spray train are required to maintain the containment peak pressure and temperature below the design limits (Refs. ~~7~~ 4). Additionally, one containment spray train is also required to remove iodine from the containment atmosphere and maintain concentrations below those assumed in the safety analysis. To ensure that ~~this~~ these requirements are met, two containment spray trains and two ~~containment cooling~~ CFCU trains consisting of four CFCUs or three CFCUs each supplied by a different vital bus must be OPERABLE. Therefore, in the event of an accident, at least one train ~~in each system~~ of containment spray and one train of CFCUs (two CFCUs) operate, assuming the worst case single active failure occurs. Each Containment Spray ~~System~~ train typically includes a spray pump, spray headers, nozzles, valves, piping, instruments, and controls to ensure an OPERABLE flow path capable of taking suction from the RWST upon an ESF actuation signal ~~and automatically transferring. Upon actuation of the RWST empty alarm, the suction flowpath must be capable of being manually transferred to the containment sump.~~ Q3.6.0-2

Each ~~Containment Cooling System~~ CFCU ~~typically~~ includes ~~demisters,~~ cooling coils, dampers, fans, instruments, and controls to ensure an OPERABLE flow path.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment and an increase in containment pressure and temperature requiring the operation of the containment spray trains and ~~containment cooling trains~~ CFCUs.

In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Thus, the Containment Spray System ~~and the Containment Cooling System are~~ is not required to be OPERABLE in MODES 5 and 6. remove strike-out

ACTIONS

Q3.6.6-20

A.1

With one containment spray train inoperable, the inoperable containment spray train must be restored to OPERABLE status within 72 hours. In this Condition, the remaining OPERABLE spray and cooling trains are ~~is~~ adequate to perform the iodine removal and containment cooling functions. The 72 hour Completion Time takes into account the redundant heat removal capability afforded by the Containment Spray System, reasonable time for repairs, and low probability of a DBA occurring during this period.

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.6-22 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

STS B3.6.6A Bases - SR 3.6.6A.1
ITS B3.6.6 Bases SR 3.6.6.1

Comment: See Comment Number 3.6.3-52.

FLOG RESPONSE: See response to Comment Number 3.6.3-52

ATTACHED PAGES:

See attached pages for response Comment Number Q 3.6.3-52.

ADDITIONAL INFORMATION NO: Q 3.6.6-24 **APPLICABILITY:** DC, CP

REQUEST:

STS B3.6.6A Bases - SR 3.6.6A.5 and SR 3.6.6A.6
ITS B3.6.6 Bases - SR 3.6.6.5 and SR 3.6.6.6

STS B3.6.6A Bases - SR 3.6.6A.5 and SR 3.6.6A.6 justifies the 18 month frequency for these SRs in part "on the need to perform these Surveillances under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power." ITS B3.6.6 Bases - SR 3.6.6.5 and SR 3.6.6.6 deletes this part of the 18 month frequency justification. Since ITS changes to the STS Bases were made based on changes to the STS, on plant specific system design, or on current licensing basis as specified in the CTS, the deletion of this frequency basis does not seem to fall into any of these categories. The staff believes that these SRs should not be performed at power but during a plant outage.

Comment: Retain the deleted STS sentences or provide a discussion justifying their deletion.

FLOG RESPONSE: For DCPP, CTS SR 4.6.2.1.c has never specified the tests be performed during shutdown. DCPPs current practice is to isolate these pumps and valves from containment while testing. LAs 119/117, dated 4/14/97, evaluated certain SR frequencies for extension from 18 to 24 months. CTS SR 4.6.2.1.c was revised at that time to the extended frequency. "During shutdown" was not specified in the NRC SE associated with LAs 119/117.

The original version of the CPSES Surveillance Requirement 4.6.12.1c (the CTS counterpart to ITS SRs 3.6.6.5 and 3.6.6.6) required that the SRs be performed every 18 months during shutdown. CPSES License Amendment 32/18 deleted the "during shutdown" requirement. These surveillances are currently allowed to be performed during any Mode. Therefore, the removal of the "during shutdown" wording in the ITS Bases is consistent with the current licensing basis for CPSES .

ATTACHED PAGES:

None

3.6.7 Spray Additive System

ADDITIONAL INFORMATION NO: Q 3.6.7-1 **APPLICABILITY:** DC

REQUEST:

DOC 9-03 A
CTS 3.6.2.2 ACTIONS
ITS 3.6.7 ACTIONS and Associated Bases.

DCPP CTS 3.6.2.2 ACTIONS specifies the remedial actions to be taken when the Spray Additive System is inoperable. The CTS markup of the ACTION statement does not show any changes, however, DOC 9-03 A justifies the Administrative changes made to the ACTION in converting from the CTS to ITS 3.6.7 ACTIONS.

Comment: Revise the CTS markup to show the Administrative changes.

FLOG RESPONSE: DCPP CTS 3.6.2.2 ACTIONS have been marked up to reflect the changes proposed by DOC 9-03-A and to be consistent with ITS 3.6.7 REQUIRED ACTIONS.

ATTACHED PAGES:

Encl 2 3/4 6-12

For Information Only Pages:

Enc 5A 3.6-22

03.6.0-1

01-07-A

LIMITING CONDITION FOR OPERATION

3.6.2.2 The Spray Additive System shall be OPERABLE ~~with~~:

a. A spray additive tank with a contained volume of between ~~2025 and 4000 gallons~~ 46.2 % and 91.9% of between 30 and 32% by weight NaOH solution, and 09-01-A

b. ~~Two spray additive eductors each capable of adding NaOH solution from the chemical additive tank to a Containment Spray System pump flow.~~ 09-02-LG

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the Spray Additive System inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the ~~Spray Additive System to OPERABLE status within the next 48 hours or~~ be in COLD SHUTDOWN within the following ~~30~~ 78 hours. (and 09-03-A 03.6.7-1

SURVEILLANCE REQUIREMENTS

4.6.2.2 The Spray Additive System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. At least once per 6 months by:

1) Verifying the contained solution volume in the tank, and

2) Verifying the concentration of the NaOH solution by chemical analysis.

c. At least once each REFUELING INTERVAL ~~per 18 months~~ by verifying that each automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to its correct position on ~~a~~ an actual or simulated ~~Containment Spray actuation test~~ signal; and DC-ALL-001 09-04-A 09-05-TR1

d. At least once per 5 years by verifying both spray additive and RWST full flow ~~from the test valve 8993~~ through each solution flow path in the Spray Additive System. 09-07-M 09-06-LG 03.6.7-9

3.6 CONTAINMENT SYSTEMS

3.6.7 Spray Additive System ~~(Atmospheric, Subatmospheric, Ice Condenser, and Dual)~~ PS

LCO 3.6.7 The Spray Additive System shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Spray Additive System inoperable.	A.1 Restore Spray Additive System to OPERABLE status.	72 hours
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 5.	6 hours 84 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.7.1	Verify each spray additive manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position.	31 days

(continued)

ADDITIONAL INFORMATION NO: Q 3.6.7-2 **APPLICABILITY:** DC, WC

REQUEST:

DOC 9-04 A
CTS 4.6.2.2.c
ITS SR 3.6.7.4

CTS 4.6.2.2c requires that each automatic valve in the Spray Additive System flow path activates to its correct position on a specified test signal. ITS SR 3.6.7.4 performs this same CTS surveillance except that it exempts those valves which are locked, sealed or otherwise secured in position. The CTS markup and the DOCs (Enclosure 3A) for DCPP adds the exemption to CTS 4.6.2.2.c and justifies this change as an Administrative change (Doc 9-04 A) which is acceptable. However, the conversion comparison Table (Enclosure 3B) shows that this change does not apply to DCPP since this condition is already in the CTS. The CTS markup for WCGS does not show this change; DOC 9-04 A states that it is not applicable to WCGS and the Conversion Comparison Table (Enclosure 3B) states that the change is current practice per CTS 4.6.2.2.c at WCGS. The staff position is that this is a change from the CTS requirements and it is applicable.

Comment: For DCPP correct the Conversion Comparison Table (Enclosure 3B) to show that the change is applicable. For WCGS, revise the CTS markup to show this Administrative change, provide the appropriate discussion and justification, and change the Conversion Comparison Table accordingly.

FLOG RESPONSE: The DCPP submittal correctly shows that DOC 9-04-A Enclosure 3B for ITS 3.6 is applicable. Enclosure 3B for WCGS incorrectly stated DOC 9-04-A was not applicable to DCPP. WCGS has revised the CTS markup to include DOC 9-04-A and considers the description of the change adequate.

ATTACHED PAGES:

None

For information only:

Encl 2	3/4 6-12
Encl 3B	7
Encl 5A	3.6-23

Q3.6.0-1

01-07-A

LIMITING CONDITION FOR OPERATION

3.6.2.2 The Spray Additive System shall be OPERABLE ~~with~~:

a. A spray additive tank with a contained volume of between ~~2025 and 4000 gallons~~ 46.2% and 91.9% of between 30 and 32% by weight NaOH solution, and 09-01-A

b. ~~Two spray additive eductors each capable of adding NaOH solution from the chemical additive tank to a Containment Spray System pump flow.~~ 09-02-LG

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the Spray Additive System inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the ~~Spray Additive System to OPERABLE status within the next 48 hours or~~ be in COLD SHUTDOWN within the following ~~30~~ 78 hours. 09-03-A (and Q3.6.7-1

SURVEILLANCE REQUIREMENTS

4.6.2.2 The Spray Additive System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. At least once per 6 months by:

1) Verifying the contained solution volume in the tank, and

2) Verifying the concentration of the NaOH solution by chemical analysis.

c. At least once each REFUELING INTERVAL ~~per 18 months~~ by verifying that each automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to its correct position on ~~a~~ an actual or simulated ~~Containment Spray actuation test~~ signal; and DC-ALL-001 09-04-A 09-05-TR1

d. At least once per 5 years by verifying both spray additive and RWST full flow ~~from the test valve 8993~~ through each solution flow path in the Spray Additive System. 09-07-M 09-06-LG

Q3.6.7-9

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
08-10 A	ITS Condition F. specifies two containment spray trains or any combination of three or more trains inoperable to enter 3.0.3. Even though this condition is not specified in the CTS, 3.0.3 would be entered.	Yes	No, CPSES has only two containment spray trains covered by this specification. Loss of both of these trains is outside the CTS and 3.0.3 is automatically invoked.	Yes	Yes
08-11 LS2 M	A "from discovery of failure to meet the LCO provision" has been added to the Completion Time for one train of containment spray/cooling systems inoperable. This change is considered less restrictive in that the 10 days allowed in the ITS not to meet the LCO is greater than the CTS would allow. → Insert Φ3.6.6-4	Yes	No, CPSES CTS does not have a curtailment cooler specification.	Yes	Yes
09-01 A	The units for the spray additive tank volume limits are changed from gallons to percent.	Yes	No	No	No
09-02 LG	The OPERABILITY of the spray additives educators is contained within the definition of OPERABILITY for the spray additive system as described in the Bases.	Yes	Yes	Yes	Yes
09-03 A	This change revises the ACTION statement by replacing the reference to restoring the spray additive system to OPERABLE status within 48 hours or be in COLD SHUTDOWN within the following 30 hours, with the requirement to be in COLD SHUTDOWN within 78 hours.	Yes	Yes	Yes	Yes
09-04 A	This change adds the phrase "that is not locked, sealed, or otherwise secured in position" with regard to which valves require actuation testing.	Yes	Yes	No, current practice per CTS SR 4.6.2.2.	No, current practice per CTS SR 4.6.2.2.

08-12 M Insert Φ3.6.6-12

SURVEILLANCE REQUIREMENTS (Continued)

SURVEILLANCE		FREQUENCY
SR 3.6.7.2	Verify spray additive tank solution volume is ≥~~[2568] gal~~ 46.2% and ≤ ~~[4000] gal~~ 91.9%.	184 days 3.6-10 B-PS
SR 3.6.7.3	Verify spray additive tank NaOH solution concentration is ≥ 30% and ≤ 32% by weight.	184 days B-PS
SR 3.6.7.4	Verify each spray additive automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	~~18~~ months 24 DC-ALL-001 B
SR 3.6.7.5	Verify spray additive flow ~~[rate]~~ from each solution's flow path.	5 years B-PS

ADDITIONAL INFORMATION NO: Q 3.6.7-4 **APPLICABILITY:** DC

REQUEST:

DOC 9-07 M
CTS 4.6.2.2.d
ITS SR 3.6.7.5 and Associated Bases

CTS 4.6.2.2d requires the verification of both spray additive and RWST full flow from the test valve in the Spray Additive System. In converting to ITS SR 3.6.7.5 this SR is modified in the CTS markup by the addition of the words "through each solution flow path." This change is designated DOC 9-07 M. Based on the CTS wording, the staff believes that the change is an Administrative change rather than a More Restrictive change. Insufficient information is provided in DOC 9-07 M to justify a More Restrictive change.

Comment: Provide additional discussion and justification to support the designation of a More Restrictive change.

FLOG RESPONSE: DCPP considers DOC 9-07 to be a more restrictive change since downstream of test valve 8993 are parallel, redundant, motor-operated valves 8994A and 8994B and flow must be independently verified through each.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.7-5 **APPLICABILITY:** DC, CP, WC

REQUEST:

DOC 9-05 TR-1
CTS 4.6.2.2.c
ITS SR 3.6.7.4 and Associated Bases

CTS 4.6.2.2.c requires that each automatic valve in the Spray Additive System flow path actuates to its correct position on a specified test signal. In converting to ITS SR 3.6.7.4 the CTS is modified to allow credit to be taken for an actual as well as a simulated (test) signal. The identification of the specified signal has been moved to the Bases. DOC 9-05 TR-1 does not provide sufficient information to justify allowing the use of an actual signal. In addition, the specified actuation signal has not been relocated to the Bases of ITS 3.6.7. See Comment Number 3.6.7-6.

Comment: Revise ITS B3.6.7 to specify the specified actuation signal (See Comment Number 3.6.7-6.) and provide additional discussion and justification to allow the use of an actual signal to meet the surveillance requirements.

FLOG RESPONSE: ITS Bases B3.6.7 has been revised to specify the specified actuation signal and DOC 9-05 TR-1 has been updated to provide additional discussion and justification to allow the use of an actual signal to meet the surveillance requirements (see Comment Number 3.6.6-3).

Additional changes were made to DOC 9-05-TR1 for Callaway, Wolf Creek, and Diablo Canyon in response to Comment Number 3.6.7-6.

ATTACHED PAGES:

Encl 5B B3.6-48

BASES

assurance that the system is able to provide additive to the Containment Spray System in the event of a DBA. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these valves were verified to be in the correct position prior to locking, sealing, or securing. This SR does not require any testing or valve manipulation. Rather, it involves verification ~~through a system walkdown,~~ that those valves outside containment and capable of potentially being mispositioned are in the correct position. Q3.6.3-52

remove strike-out

which may include the use of local or remote indicators

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.7.2

To provide effective iodine removal, the containment spray must be an alkaline solution. Since the RWST contents are normally acidic, the volume of the spray additive tank must provide a sufficient volume of spray additive to adjust pH for all water injected. This SR is performed to verify the availability of sufficient NaOH solution in the Spray Additive System. The required volume may be surveilled using an indicated level band of 50 to 88% for the Spray Additive Tank which corresponds to the LCO 3.6.7 minimum and maximum limits adjusted conservatively for instrument accuracy of ±0.3%. The 184 day Frequency was developed based on the low probability of an undetected change in tank volume occurring during the SR interval (the tank is isolated during normal unit operations). Tank level is also indicated and equipped with a low level alarm in the control room, so that there is high confidence that a ~~substantial change in~~ level below an acceptable value would be detected. Q3.6.7-15

SR 3.6.7.3

This SR provides verification of the NaOH concentration in the spray additive tank and is sufficient to ensure that the spray solution being injected into containment is at the correct pH level. The 184 day Frequency is sufficient to ensure that the concentration level of NaOH in the spray additive tank remains within the established limits. This is based on the low likelihood of an uncontrolled change in concentration (the tank is normally isolated) and the probability that any substantial variance in tank volume will be detected. Q3.6.7-5

on a containment spray actuation signal

SR 3.6.7.4

DC-ALL-001

This SR provides verification that each automatic valve in the Spray Additive System flow path actuates to its correct position. This Surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the 18 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

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DC-ALL-001

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.7-6 **APPLICABILITY:** DC, WC, CA

REQUEST:

DOC 9-05 TR-1
CTS 4.6.2.2.c

DCPP CTS 4.6.2.2.c requires that each automatic valve in the Spray Additive System flow path actuates to its correct position on a Containment Spray Actuation test signal. DOC 9-05 TR-1 for DCPP specifies that this signal is a safety injection test signal. Note the safety injection signal is correct for the change associated with CTS 4.6.2.3.b which also used DOC 9-05 TR-1.

Comment: Correct this discrepancy.

FLOG RESPONSE: DOC 9-05-TR1 was revised to list the appropriate actuation test signal for CTS 4.6.2.2.c and 4.6.2.3.b.

ATTACHED PAGES:

Encl 3A 8
Encl 3B 8

For Information Only pages:

Enclosure 2 page 3/4 6-12 and 3/4 6-14

CHANGE NUMBER	NSHC	DESCRIPTION
09-02	LG	The descriptive information in LCO 3.6.2.2 regarding OPERABILITY of the spray additive system is contained within the definition of OPERABILITY as described in the ITS 3.6.7 Bases. This is consistent with NUREG-1431 and is acceptable because while the descriptive detail has been moved to the Bases, the basic requirement is retained in the LCO.
09-03	A	Consistent with NUREG-1431, the ACTION statement is revised by deleting the reference to restoring the spray additive system to OPERABILITY within 48 hours or be in COLD SHUTDOWN within the following 30 hours. The revised ACTION statement contains a requirement to be in COLD SHUTDOWN within 78 hours. The time allowed to be in COLD SHUTDOWN has not changed. As discussed in the Bases, the interval to reach COLD SHUTDOWN allows 48 hours for restoration of the system OPERABILITY and an additional 36 hours to achieve COLD SHUTDOWN.
09-04	A	Consistent with NUREG-1431, adds the phrase 'that is not locked, sealed, or otherwise secured in position with regard to which valves require actuation testing. This change is merely a clarification. Valves that are secured in place, are secured in the position required to meet their safety function. The actuation testing ensures that valves can move to the position that meets their safety function. If the valves are secured in the position that meets their safety function, no testing is necessary.
09-05	TR1	The specific actuation signal (a [safety injection or Containment spray] actuation test signal) for the surveillance was replaced with a generic words that allow credit for an actual or simulated actuation. Identification of the signal is moved to the Bases. Insert Q3.6.6-3 Q3.6.7-6
09-06	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
09-07	M	Consistent with NUREG-1431, the surveillance is modified to require demonstration of flow through each solution flow path. This assures that all spray additive flow paths are clear.
10-01	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
10-02	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
10-03	LG	The DCPP specific Note cautioning that containment fan cooling unit (CFCU) flow rate may not be achieved during Section XI testing and residual heat removal (RHR) operation is relocated to the Bases. This level of detail is not required in the TS.

Consistent with NUREG-1431, the specific details in the surveillance requirement [ ] are removed from the TS [ ]. These details are now contained in the Bases. This is acceptable because the basic test requirement is retained in the TS.

Q3.6.7-9

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION Q3.6.7-6 or Containment Spray	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
09-05 TR1	The specific actuation signal (a [SI] actuation test signal) for the surveillance was replaced with a generic words that allow credit for an actual or simulated actuation.	Yes	Yes	Yes	~~No~~ Yes
09-06 LG	This change removes specific details in the SR with regard to verifying flow path and the RWST water flow rates ~~of between 50 and 100 gpm through the eductor test loops,~~ and adds a general requirement to verify flow capability through each eductor.	~~No, CTS does not contain this detail.~~ Yes, surveillance details are moved to the Bases. Q3.6.7-9	Yes, surveillance details are moved to the Bases.	Yes, surveillance details are moved to the Bases.	No, CTS does not have this system.
09-07 M	The surveillance for DCPP is modified to require demonstration of flow through each solution flow path.	Yes	No	No	No
10-01 LG	Moves details regarding the number of fans in each cooling system train to the Bases.	No, CTS based on different design.	No, CPSES does not have this specification.	Yes	Yes
10-02 LG	Details regarding the automatic functions to be tested and the cooling water flow rate would be moved to the Bases.	No, CTS does not have this detail.	No, CPSES does not have this specification.	Yes	Yes
10-03 LG	The DCPP specific Note cautioning that CFCU flow rate may not be achieved during Section XI testing and RHR operation is relocated to the Bases.	Yes	No	No	No
11-01 LS13	This Note is added to the ACTIONS to allow containment isolation valves that are required to be closed, [ ] to be opened intermittently under administrative controls.	Yes	Yes	Yes	Yes
11-02 A	This Note is added to the ACTIONS to allow separate Condition entry for each penetration flow path.	Yes	Yes	Yes	Yes
11-03 A	This Note is added to the ACTIONS to enter applicable Conditions and Required ACTIONS for systems made inoperable by containment isolation valves.	Yes	No, a cautionary note is already part of CTS.	Yes	Yes

Q3.6.0-1

01-07-A

LIMITING CONDITION FOR OPERATION

3.6.2.2 The Spray Additive System shall be OPERABLE ~~with~~:

a. A spray additive tank with a contained volume of between ~~2025 and 4000 gallons~~ 46.2 % and 91.9% of between 30 and 32% by weight NaOH solution, and 09-01-A

b. ~~Two spray additive eductors each capable of adding NaOH solution from the chemical additive tank to a Containment Spray System pump flow.~~ 09-02-LG

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the Spray Additive System inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the ~~Spray Additive System to OPERABLE status within the next 48 hours or~~ be in COLD SHUTDOWN within the following ~~30~~ 78 hours. 09-03-A (and Q3.6.7-1

SURVEILLANCE REQUIREMENTS

4.6.2.2 The Spray Additive System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. At least once per 6 months by:

1) Verifying the contained solution volume in the tank, and

2) Verifying the concentration of the NaOH solution by chemical analysis.

c. At least once ~~per 18 months~~ each REFUELING INTERVAL by verifying that each automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to its correct position on ~~a~~ an actual or simulated ~~Containment Spray actuation test~~ signal; and DC-ALL-001 09-04-A 09-05-TR1

d. At least once per 5 years by verifying both spray additive and RWST full flow ~~from the test valve 8993~~ through each solution flow path in the Spray Additive System. 09-07-M 09-06-LG Q3.6.7-9

SURVEILLANCE REQUIREMENTS (Continued)

2) Verifying a cooling water flow rate of greater than or equal to 1650* gpm to each cooler, and 10-03-LG

3) Verifying that each containment fan cooler unit starts on low speed.

DC-ALL-001

b. At least once ~~per 18 months~~ each REFUELING INTERVAL by verifying that each containment fan cooler unit starts automatically on ~~a Safety Injection test~~ an actual or simulated actuation signal. 09-05-TR1

~~* The CFCU cooling water flow rate requirement of TS 4.6.2.3a.2) may not be met during Section XI testing and in Mode 4 during residual heat removal heat exchanger operation.~~ 10-03-LG

ADDITIONAL INFORMATION NO: Q 3.6.7-9 **APPLICABILITY:** DC

REQUEST:

DOC 9-06 LG
CTS 4.6.2.2.d
ITS SR 3.6.7.5 and Associated Bases

DCPP CTS 4.6.2.2.d verifies both spray additive and RWST full flow from the test valve 8993 in the Spray Additive System. DOC 9-06 LG in the other FLOG CTS relocates the details of CTS 4.6.2.2.d to the Bases. The DCPP DOC Enclosure 3A specifies that DOC 9-06 LG is not applicable to DCPP. This is incorrect. The specific details of CTS 4.6.2.2.d such as flow path and test valve 8993 have not been specified in the corresponding ITS SR 3.6.7.5 but have been moved to ITS B3.6.7 Bases - SR 3.6.7.5.

Comment: Revise the CTS markup to show that these items have been relocated to the Bases and provide the appropriate discussion and justification for DOC 9-06 LG.

FLOG RESPONSE: DCPP has adopted DOC 9-06-LG to track the relocation of the details in SR 4.6.2.2.d to the ITS Bases SR 3.6.7.5. Specifically, the phrase "from the test valve 8993" has been struck-through and DOC 9-06-LG referenced.

ATTACHED PAGES:

Encl 2	3/4 6-12
Encl 3A	8
Encl 3B	8

Q3.6.0-1

01-07-A

LIMITING CONDITION FOR OPERATION

3.6.2.2 The Spray Additive System shall be OPERABLE ~~with~~:

a. A spray additive tank with a contained volume of between ~~2025 and 4000 gallons~~ 46.2% and 91.9% of between 30 and 32% by weight NaOH solution, and 09-01-A

b. ~~Two spray additive eductors each capable of adding NaOH solution from the chemical additive tank to a Containment Spray System pump flow.~~ 09-02-LG

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the Spray Additive System inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the ~~Spray Additive System to OPERABLE status within the next 48 hours or~~ be in COLD SHUTDOWN within the following ~~30~~ 78 hours. (and 09-03-A Q3.6.7-1

SURVEILLANCE REQUIREMENTS

4.6.2.2 The Spray Additive System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. At least once per 6 months by:

1) Verifying the contained solution volume in the tank, and

2) Verifying the concentration of the NaOH solution by chemical analysis.

c. At least once ~~per 18 months~~ each REFUELING INTERVAL by verifying that each automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to its correct position on ~~a~~ an actual or simulated ~~Containment Spray actuation test~~ signal; and DC-ALL-001 09-04-A 09-05-TR1

d. At least once per 5 years by verifying both spray additive and RWST full flow ~~from the test valve 8993~~ through each solution flow path in the Spray Additive System. 09-07-M 09-06-LG Q3.6.7-9

CHANGE NUMBER	NSHC	DESCRIPTION
09-02	LG	The descriptive information in LCO 3.6.2.2 regarding OPERABILITY of the spray additive system is contained within the definition of OPERABILITY as described in the ITS 3.6.7 Bases. This is consistent with NUREG-1431 and is acceptable because while the descriptive detail has been moved to the Bases, the basic requirement is retained in the LCO.
09-03	A	Consistent with NUREG-1431, the ACTION statement is revised by deleting the reference to restoring the spray additive system to OPERABILITY within 48 hours or be in COLD SHUTDOWN within the following 30 hours. The revised ACTION statement contains a requirement to be in COLD SHUTDOWN within 78 hours. The time allowed to be in COLD SHUTDOWN has not changed. As discussed in the Bases, the interval to reach COLD SHUTDOWN allows 48 hours for restoration of the system OPERABILITY and an additional 36 hours to achieve COLD SHUTDOWN.
09-04	A	Consistent with NUREG-1431, adds the phrase 'that is not locked, sealed, or otherwise secured in position with regard to which valves require actuation testing. This change is merely a clarification. Valves that are secured in place, are secured in the position required to meet their safety function. The actuation testing ensures that valves can move to the position that meets their safety function. If the valves are secured in the position that meets their safety function, no testing is necessary.
09-05	TR1	The specific actuation signal (a [safety injection or Containment spray] actuation test signal) for the surveillance was replaced with a generic words that allow credit for an actual or simulated actuation. Identification of the signal is moved to the Bases. Insert Q3.6.6-3 Q3.6.7-6
09-06	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
09-07	M	Consistent with NUREG-1431, the surveillance is modified to require demonstration of flow through each solution flow path. This assures that all spray additive flow paths are clear.
10-01	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
10-02	LG	This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3B).
10-03	LG	The DCPP specific Note cautioning that containment fan cooling unit (CFCU) flow rate may not be achieved during Section XI testing and residual heat removal (RHR) operation is relocated to the Bases. This level of detail is not required in the TS. Consistent with NUREG-1431, the specific details in the surveillance requirement [ ] are removed from the TS [ ]. These details are now contained in the Bases. This is acceptable because the basic test requirement is retained in the TS. Q3.6.7-9

TECH SPEC CHANGE		APPLICABILITY			
NUMBER	DESCRIPTION Q3.6.7-6 or Containment Spray	DIABLO CANYON	COMANCHE PEAK	WOLF CREEK	CALLAWAY
09-05 TR1	The specific actuation signal (a [SI] actuation test signal) for the surveillance was replaced with a generic words that allow credit for an actual or simulated actuation.	Yes	Yes	Yes	~~No~~ Yes
09-06 LG	This change removes specific details in the SR with regard to verifying flow path and the RWST water flow rates ~~of between 50 and 100 gpm through the eductor test loops,~~ and adds a general requirement to verify flow capability through each eductor.	~~No, CTS does not contain this detail.~~ Yes, surveillance details are moved to the Bases. Q3.6.7-9	Yes, surveillance details are moved to the Bases.	Yes, surveillance details are moved to the Bases.	No, CTS does not have this system.
09-07 M	The surveillance for DCPP is modified to require demonstration of flow through each solution flow path.	Yes	No	No	No
10-01 LG	Moves details regarding the number of fans in each cooling system train to the Bases.	No, CTS based on different design.	No, CPSES does not have this specification.	Yes	Yes
10-02 LG	Details regarding the automatic functions to be tested and the cooling water flow rate would be moved to the Bases.	No, CTS does not have this detail.	No, CPSES does not have this specification.	Yes	Yes
10-03 LG	The DCPP specific Note cautioning that CFCU flow rate may not be achieved during Section XI testing and RHR operation is relocated to the Bases.	Yes	No	No	No
11-01 LS13	This Note is added to the ACTIONS to allow containment isolation valves that are required to be closed, [ ] to be opened intermittently under administrative controls.	Yes	Yes	Yes	Yes
11-02 A	This Note is added to the ACTIONS to allow separate Condition entry for each penetration flow path.	Yes	Yes	Yes	Yes
11-03 A	This Note is added to the ACTIONS to enter applicable Conditions and Required ACTIONS for systems made inoperable by containment isolation valves.	Yes	No, a cautionary note is already part of CTS.	Yes	Yes

ADDITIONAL INFORMATION NO: Q 3.6.7-13 **APPLICABILITY:** DC

REQUEST:

STS B3.6.7 Bases - APPLICABLE SAFETY ANALYSES
ITS B3.6.7 Bases - APPLICABLE SAFETY ANALYSES

The fourth paragraph of STS B3.6.7 Bases - APPLICABLE SAFETY ANALYSES has been extensively modified in DCPP ITS B3.6.7 Bases. The modifications make the paragraph incomprehensible and nonsensical.

Comment: Revise the ITS markup to correct the errors and provide a discussion and justification for the modifications.

FLOG RESPONSE: The paragraph will be revised to read as follows: "The DBA analyses assume that one train of the Containment Spray System/Spray Additive System is inoperable in which case spray additive solution is added using only the remaining Containment Spray System flow path. In this case, by the time the RWST reaches low-low level and the addition of spray additive solution is terminated, a sufficient volume of spray additive solution will have been discharged into the containment to raise the pH of the water in containment above the minimum required value."

ATTACHED PAGES:

Encl 5B B3.6-46

BASES

The Containment Spray System actuation signal opens the valves from the spray additive tank to the spray pump suctions or ~~the containment spray pump start~~ a manual containment spray initiation signal also opens the valves from the spray additive tank ~~after a 5 minute delay~~. The ~~28~~ 30% to ~~31~~ 32% NaOH by weight solution is drawn into the spray ~~pump~~ eductor suctions which inject it into the spray pump suction. The spray additive tank capacity provides for the addition of NaOH solution to all of the water sprayed from the RWST into containment. The percent solution and volume of solution sprayed into containment ensures a long term containment sump pH of ~~≥ 9.0~~ 8.0 and ≤ ~~9.5~~ 10.0. This ensures the continued iodine retention effectiveness of the sump water during the recirculation phase of ~~spray~~ operation and also minimizes the occurrence of chloride induced stress corrosion cracking of the stainless steel recirculation piping.

APPLICABLE SAFETY ANALYSES

The Spray Additive System is essential to the removal of airborne iodine within containment following a DBA LOCA.

Following the assumed release of radioactive materials into containment, the containment is assumed to leak at its design value volume following the accident. The analysis assumes that ~~100% 56.3~~ a minimum 83% of the containment free volume is covered by the spray (Ref. 1).

The DBA response time assumed for the Spray Additive System is the same as for the Containment Spray System and is discussed in the Bases for LCO 3.6.6, "Containment Spray and Cooling Systems."

Q3.6.7-13

The DBA analyses assume that (in which case) one train of the Containment Spray System/Spray Additive System is inoperable (using only) ~~and that the entire even so sufficient~~ spray additive ~~tank volume~~ solution is added ~~to~~ the remaining Containment Spray System flow path. ~~to achieve the minimum required containment recirculation sump solution pH of 8.0 prior to reaching RWST low-low level~~.

The Spray Additive System satisfies Criterion 3 of ~~the NRC Policy Statement~~ 10CFR50.36(c)(2)(ii).

LCO

The Spray Additive System is necessary to reduce the release of radioactive material to the environment in the event of a DBA LOCA. To be considered OPERABLE, the volume and concentration of the spray additive solution must be sufficient to provide NaOH injection into the spray flow ~~until the Containment Spray System suction path is switched from the RWST to the containment sump, and~~ to raise the average long term containment sump ~~spray~~ solution pH to a level conducive to iodine ~~removal~~ retention in the liquid phase, namely, to between ~~8.5~~ 8.0 and ~~11.0 10.5~~ 10.0. This pH range maximizes the effectiveness of the iodine removal mechanism (from the containment atmosphere) without introducing

(Continued)

In this case, by the time the RWST reaches low-low level and the addition of spray additive solution is terminated, a sufficient volume of spray additive solution will have been discharged into the containment to raise the pH of the water in containment above the minimum required value.

Q3.6.7-13

ADDITIONAL INFORMATION NO: Q 3.6.7-14 **APPLICABILITY:** DC, CP, WC

REQUEST:

STS B3.6.7 Bases - SR 3.6.7.1
ITS B3.6.7 Bases - SR 3.6.7.1

Comment: See Comment Number 3.6.3-52.

FLOG RESPONSE: See response to Comment Number 3.6.3-52

ATTACHED PAGES:

See attached pages for response Comment Number 3.6.3-52.

ADDITIONAL INFORMATION NO: Q 3.6.7-15 **APPLICABILITY:** DC

REQUEST:

ITS SR 3.6.7.2 and Associated Bases

DCPP ITS B3.6.7 Bases - SR 3.6.7.2 states the following: "The required volume may be surveilled using an indicated level band of 50 to 88% for the Spray Additive Tank which corresponds to the LCO 3.6.7 minimum and maximum limits adjusted conservatively for instrument accuracy of ± 0.3%." ITS SR 3.6.7.2 specifies the minimum and maximum limits as 46.2 and 91.9% respectively. The ITS SR and ITS Bases numbers do not seem to correlate even when instrument accuracy is taken into account.

Comment: Provide a discussion to show that the ITS SR and ITS Bases numbers are equivalent.

FLOG RESPONSE: DCPP ITS B3.6.7 Bases - SR 3.6.7.2 contains a misplaced decimal point. The instrument accuracy of the spray additive tank level instruments is +/- 3.0% (not +/- 0.3%). This accuracy was applied and rounded conservatively to the nearest whole numbers (50% rounded up and 88% rounded down) for readability. Thus, the sentence in question should read:

"The required volume may be surveilled using an indicated level band of 50 to 88% for the Spray Additive Tank which corresponds to the LCO 3.6.7 minimum and maximum limits adjusted conservatively to the nearest whole percentage for instrument accuracy of +/- 3%."

ATTACHED PAGES:

Encl 5B B3.6-48

BASES

assurance that the system is able to provide additive to the Containment Spray System in the event of a DBA. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these valves were verified to be in the correct position prior to locking, sealing, or securing. This SR does not require any testing or valve manipulation. Rather, it involves verification ~~through a system walkdown,~~ that those valves outside containment and capable of potentially being mispositioned are in the correct position. Ø3.6.3-52

remove strike-out

which may include the use of local or remote indicators

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.7.2

To provide effective iodine removal, the containment spray must be an alkaline solution. Since the RWST contents are normally acidic, the volume of the spray additive tank must provide a sufficient volume of spray additive to adjust pH for all water injected. This SR is performed to verify the availability of sufficient NaOH solution in the Spray Additive System. The required volume may be surveilled using an indicated level band of 50 to 88% for the Spray Additive Tank which corresponds to the LCO 3.6.7 minimum and maximum limits adjusted conservatively for instrument accuracy of ±0.3%. The 184 day Frequency was developed based on the low probability of an undetected change in tank volume occurring during the SR interval (the tank is isolated during normal unit operations). Tank level is also indicated and equipped with a low level alarm in the control room, so that there is high confidence that a ~~substantial change in~~ level below an acceptable value would be detected. Ø3.6.7-15

SR 3.6.7.3

This SR provides verification of the NaOH concentration in the spray additive tank and is sufficient to ensure that the spray solution being injected into containment is at the correct pH level. The 184 day Frequency is sufficient to ensure that the concentration level of NaOH in the spray additive tank remains within the established limits. This is based on the low likelihood of an uncontrolled change in concentration (the tank is normally isolated) and the probability that any substantial variance in tank volume will be detected. Ø3.6.7-5

on a containment spray actuation signal

SR 3.6.7.4

DC-ALL-001

This SR provides verification that each automatic valve in the Spray Additive System flow path actuates to its correct position. This Surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the 18 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

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DC-ALL-001

(Continued)

3.6.8 Hydrogen Recombiners

ADDITIONAL INFORMATION NO: Q 3.6.8-1 **APPLICABILITY:** DC, WC, CA

REQUEST:

DOC 13-01 LS-17
JFD B
CTS 3.6.4.2 ACTIONS
STS 3.6.8 ACTION B and Associated Bases
ITS 3.6.8 ACTION B and Associated Bases

A new ACTION has been added to CTS 3.4.6.2. This ACTION describes the required actions to be taken for two hydrogen recombiners inoperable. Whereas CTS 3.6.4.2 would require immediate entry into CTS 3.0.3, STS/ITS 3.6.8 ACTION B allows up to 7 days to restore one hydrogen recombiner to OPERABLE status, based on the availability of the Containment Hydrogen Purge System. The reviewer's Note in STS B3.6.8 Bases - ACTIONS B.1 and B.2 states that "This condition is only allowed for units with an alternate hydrogen control system acceptable to the Technical Staff." Other than stating that there is a Hydrogen Purge System in ITS B3.6.8 Bases, no description is provided on this system. In addition, ITS 3.6.3 and its associated Bases only describes a Containment Purge System, not a Hydrogen Purge System and its associated purge valves. There is no discussion or justifications to show Containment Purge System and the Hydrogen Purge System are the same system or separate independent systems or that the Containment Purge System has been approved by the staff as an alternate means of hydrogen control. See Comment 3.6.8-6 regarding additional concerns in this area.

Comment: Provide appropriate discussion and justification to show that the Containment Purge System or the Hydrogen Purge System has been approved by the Staff as an alternate means of hydrogen control or delete ITS 3.6.8 ACTION B.

FLOG RESPONSE: Provided below are the plant specific licensing basis concerning the containment Hydrogen Purge System and its acceptability by the Technical Staff.

Plant Specific Discussion: DCPP will retain ITS 3.6.8 ACTION B based on the following justification:

The hydrogen purge system was the system intended to be used for containment combustible gas control in the original plant design. A description and discussion of the system are given in FSAR Section 6.2.5, and the offsite dose consequences of using the system are discussed in FSAR Section 15.5. It was constructed to meet the requirements for such a system at the time, and its design was reviewed and accepted by the NRC in the SERs. (For example, in Section 6.2.5 of the original DCPP SER, the NRC states: "The containment hydrogen purge system, consisting of two redundant purge supply routes, is provided to limit the hydrogen concentrations to below the guideline values given in Regulatory Guide 1.7. The system incorporates several design features that are intended

to assure the capability of the system to be operable in the unlikely event of an accident. These features include Seismic Category I design, and redundancy to the extent that no single component failure disables the system. Redundant monitoring systems are provided to allow periodic sampling and analysis of the hydrogen concentration in containment. Based on our review of the systems provided for combustible gas control following a postulated LOCA, we conclude that these systems will meet the recommendations of Regulatory Guide 1.7, and are in conformance with AEC General Criteria Nos. 41, 42, 43, and are, therefore, acceptable.")

Subsequently, as a result of industry initiatives, 100% redundant internal hydrogen recombiners were installed in each Unit and became the design basis means of containment combustible gas control. However, the hydrogen purge systems were maintained operable in their original design to serve as a backup system in the event of a beyond design basis double active failure of the internal recombiners. Since the hydrogen purge system no longer has an active design basis safety function, its operability is not controlled by TS. However, to meet licensing commitments that it would be maintained operable, its motor-operated exhaust line valves and its supply and exhaust fans are regularly surveillance tested, and its HEPA and charcoal filters are tested regularly and maintained within operability limits. Since the system is no longer considered to have an active design basis safety function, any deficiencies discovered in its original design have not been corrected. However, the system is maintained operable per its original design, and meets the criteria of the STS NRC reviewer's note. Operability of the system will be maintained in the current manner as a licensing basis required system which has no active design basis safety-related function, and whose operability is not controlled by TS but as a licensing basis requirement.

Note that the Containment Purge System is a different system and has no relation or connection with the Hydrogen Purge System. The Containment Purge System has no accident mitigation function, and the only active safety function associated with it is closure of its containment isolation valves.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.8-2 **APPLICABILITY:** DC, CP, WC, CA

REQUEST:

DOC 13-03 LG
CTS 4.6.4.2.a
CTS 4.6.4.2.b.2
CTS 4.6.4.2.b.3
ITS B3.6.8 Bases - SR 3.6.8.1
ITS B3.6.8 Bases - SR 3.6.8.2
ITS B3.6.8 Bases - SR 3.6.8.3

The descriptive information on the hydrogen recombiners in CTS 4.6.4.2.a, 4.6.4.2.b.2, and 4.6.4.2.b.3 has been moved to ITS B3.6.8 Bases - SR 3.6.8.1, SR 3.6.8.2 and SR 3.6.8.3 respectively. DOC 13-03 LG justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document. See Comment Numbers 3.6.8-3 and 3.6.8-4.

Comment: Provide additional discussion and justification for this Less Restrictive change.

FLOG RESPONSE: DOC 13-03 LG has been revised to include the following justification: "CTS 4.6.4.2 details specific acceptance criteria for hydrogen recombiner testing: 1) rate of heater sheath temperature increase [and power consumption]; 2) attributes of a visual examination; and 3) required heater phase resistance. The requirements of ITS LCO 3.6.8, "Hydrogen Recombiners," and associated SRs are adequate to describe the levels of equipment and testing required for safe operation of the plant. It is acceptable to specify the requirements appropriate to ensure compliance with the LCO and locate details and acceptance criteria in the Bases. Some information that is descriptive in nature regarding the equipment, system(s), actions, or surveillances identified by the specification have been removed from the proposed specification and included in the proposed Bases, FSAR, other licensee-controlled document. The NRC has previously approved moving this type of detailed information or specific requirement to a licensee-controlled document, maintained in accordance with applicable regulatory requirements, since its inclusion in the improved TS is not necessary to adequately protect the health and safety of the public. Therefore, the descriptive information that has been moved continues to be maintained in an appropriately controlled manner due to the controls which presently exist on the documents where the information is being moved."

ATTACHED PAGES:

Encl 3A 13

DESCRIPTION OF CHANGES TO TS SECTION 3/4.6
(Continued)

CHANGE NUMBER	NSHC	DESCRIPTION
12-05	LS16	Revises the Frequency of the hydrogen monitor surveillance to perform CHANNEL CALIBRATION from 92 days on a staggered test basis to once per 18 months consistent with NUREG-1431. The hydrogen monitors are part of the PAM instrumentation and their primary function is to detect high hydrogen concentration conditions that may occur during accident situations. This change is acceptable because the primary means of reducing hydrogen concentration during accidents is via the independent hydrogen recombiners [and hydrogen purge systems]. Failure of the monitors would not affect the capabilities of [these systems]. Further changing the CHANNEL CALIBRATION surveillance interval from 92 days (on a staggered test basis) to every [18 months] is not expected to effect the reliability or performance of the hydrogen monitors based on industry operating experience.
12-06	LG	The details provided for performing the CHANNEL CALIBRATION are moved out of the SR. This information is procedural in nature and is not consistent with the level of detail in NUREG-1431. The information is moved to the Bases for ITS SR 3.3.3.2.
12-07	M	A new SR is added for DCPP requiring a CHANNEL CHECK every 31 days (if energized) for the hydrogen analyzer/ monitors. This change is consistent with NUREG-1431.
13-01	LS17	A new Condition has been added to this specification. This Condition describes the Required Action for two hydrogen recombiners inoperable. Whereas in the current specification LCO 3.0.3 applied, this change allows up to 7 days to restore one hydrogen recombiner to OPERABLE status, based on the availability of the containment hydrogen purge system to provide the required safety function. In order to use this ACTION time, the Required Actions require that the hydrogen control function be verified available within 1 hour and once every 12 hours thereafter. This administrative verification will assure that the hydrogen purge system is capable of performing the safety function if an event occurs. Also, the Bases for operation of the recombiners indicates that if a design basis event occurs, 8 days or more would elapse before the containment atmosphere approached the lower flammability limit for hydrogen. Therefore, it is reasonable to assume that the inoperability of two hydrogen recombiners will not significantly jeopardize the capability of the facility to respond to a design basis event. This change is consistent with NUREG-1431. DC-ALL-001
13-02	LS18	~~The current SR to perform a hydrogen recombiner functional test every 6 months is revised to every 18 months consistent with NUREG-1431. This change is considered acceptable due to the redundancy and proven high reliability of the system. Hydrogen recombiner operating experience has shown that functional test failures are rare. In addition, the fully redundant and independent hydrogen purge system provides an alternate, and equally effective, method of controlling hydrogen. The proposed change is in accordance with NUREG-1366, "Improvement to Technical Specification Requirements" and NUREG-1431.~~
13-03	LG	Descriptive information regarding the current hydrogen recombiner surveillances is moved into the Bases. The proposed changes to the surveillances are consistent with the wording and detail present in the NUREG-1431 surveillance requirements. Insert Q3.6.8-2

This change is not applicable to DCPP. See Conversion Comparison Table (Enclosure 3.3).

Insert for DOC 13-03-LG:

CTS 4.6.4.2 details specific acceptance criteria for hydrogen recombiner testing: 1) rate of heater sheath temperature increase [and power consumption]; 2) attributes of a visual examination; and 3) required heater phase resistance. The requirements of ITS LCO 3.6.8, "Hydrogen Recombiners," and associated SRs are adequate to describe the levels of equipment and testing required for safe operation of the plant. It is acceptable to specify the requirements appropriate to ensure compliance with the LCO and locate details and acceptance criteria in the Bases. Some information that is descriptive in nature regarding the equipment, system(s), actions or surveillances identified by the specification has been removed from the proposed specification and included in the proposed Bases, FSAR, other licensee controlled document. The NRC has previously approved moving this type of detailed information or specific requirement to a licensee controlled document, maintained in accordance with applicable regulatory requirements, since its inclusion in the improved TS is not necessary to adequately protect the health and safety of the public. Therefore, the descriptive information that has been moved continues to be maintained in an appropriately controlled manner due to the controls which presently exist on the documents where the information is being moved.

ADDITIONAL INFORMATION NO: Q 3.6.8-4 **APPLICABILITY:** DC, CP, WC

REQUEST:

DOC 13-03 LG
CTS 4.6.4.2.b.2
ITS B3.6.8 Bases - SR 3.6.8.2

The descriptive information specified in CTS 4.6.4.2.b.2 on abnormal conditions within the recombiner enclosure is to be moved to the Bases. The staff cannot find this information in ITS B3.6.8 Bases - SR 3.6.8.2 which is the corresponding ITS SR for CTS 4.6.4.2.b.2.

Comment: Describe where this relocated information can be found.

FLOG RESPONSE: The ITS B3.6.8 Bases - SR 3.6.8.2 has been revised to include the attributes of a visual inspection as described in CTS SR 4.6.4.2.

ATTACHED PAGES:

Encl 5B B 3.6-53

BASES (Continued)

C.1

If the inoperable hydrogen recombiner(s) cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours. The Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.8.1

Performance of a system functional test for each hydrogen recombiner ensures the recombiners are operational and can attain and sustain the temperature necessary for hydrogen recombination. In particular, this SR verifies that the minimum heater sheath temperature increases to ≥ 700°F in ≤ 90 minutes. After reaching 700°F, the power is increased to maximum power for approximately 2 minutes and power is verified to be ≥ 60 kW.

Operating experience has shown that these components usually pass the Surveillance when performed at the ~~18~~ 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint. DC-ALL-001

SR 3.6.8.2

This SR ensures there are no physical problems that could affect recombiner operation. Since the recombiners are mechanically passive, they are not subject to mechanical failure. The only credible failure involves loss of power, blockage of the internal flow, missile impact, etc. CD 3.6.8-4

A visual inspection (i.e., loose wiring or structural connections, deposits of foreign material, etc.) is sufficient to determine abnormal conditions that could cause such failures. The ~~18~~ 24 month Frequency for this SR was developed considering the incidence of hydrogen recombiners failing the SR in the past is low. DC-ALL-001

SR 3.6.8.3

This SR, which is performed following the functional test of SR 3.6.8.1, requires performance of a resistance to ground test for each heater phase to ensure that there are no detectable grounds in any heater phase. This is accomplished by verifying that the resistance to ground for any heater phase is ≥ 10,000 ohms.

The ~~18~~ 24 month Frequency for this Surveillance was developed considering the incidence of hydrogen recombiners failing the SR in the past is low. DC-ALL-001

(Continued)

ADDITIONAL INFORMATION NO: Q 3.6.8-5 **APPLICABILITY:** DC

REQUEST:

DOC 13-04 LG
CTS 4.6.4.2.b.1

CTS 4.6.4.2.b.1 requires a CHANNEL CALIBRATION be performed on the hydrogen recombiner instrumentation and controls at least once every 18 months. DOC 13-04 LG states that this surveillance is being relocated to a licensee controlled document. Enclosure 6B "Conversion Comparison Table - Current TS 3/4.6" specifies for Diablo Canyon that this information is being relocated to the "ECGS." While the other FLOG utilities are relocating this item to a 10 CFR 50.59 controlled document, no information is provided as to the change control process for the ECGS.

Comment: Describe the ECGS change control process. If the change control process is not 10 CFR 50.59, provide a discussion and justification for this Less Restrictive (LS) change of deletion of details from regulatory control.

FLOG RESPONSE: Diablo Canyon has Equipment Control Guidelines (ECGs) that are controlled by DCPP Department-Level Administrative Procedure (DLAP) OP1.DC16, "Control of Plant Equipment Not Required by the Technical Specifications." DCPP ECGs are similar to other plants' Technical Requirement Manual (TRM). Changes to ECGs are made under the provisions of 10 CFR 50.59, as required by DLAP OP1.DC16 and FSAR Chapter 16. The NRC has accepted ECGs as a licensee-controlled document. This is confirmed most recently in License Amendment 120/118 dated 2/3/98, page 2 of the NRCs safety evaluation report.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION NO: Q 3.6.8-7 **APPLICABILITY:** DC

REQUEST:

STS B3.6.8 Bases - APPLICABLE SAFETY ANALYSES
STS B3.6.8 Bases - REFERENCES
ITS B3.6.8 Bases - APPLICABLE SAFETY ANALYSES
ITS B3.6.8 Bases - REFERENCES

STS/ITS B3.6.8 Bases - APPLICABLE SAFETY ANALYSES second paragraph, last sentence states the following: "Conservative assumptions recommended by Reference 3 are used to maximize the amount of hydrogen calculated." STS B3.6.8 Bases - References identifies Reference 3 as "Regulatory Guide 1.7, Revision 2." ITS B3.6.8 Bases - References deletes STS Reference 3 and makes STS Reference 4 "FSAR Section 6.2.5, Reference 3. The FSAR does not recommend assumptions to be used, but specifies the assumptions used to design the facility.

Comment: Correct this discrepancy and provide any necessary discussion and justification.

FLOG RESPONSE: Regulatory Guide 1.7 as been added as Reference 4 in the ITS Bases Section 3.6.8. The Diablo Canyon post-LOCA containment hydrogen reanalysis was recently reperformed by Westinghouse. The results of this reanalysis will be included in the next revision (Revision 12) of the Diablo Canyon FSAR. A summary of the 10 CFR 50.59 safety evaluation for this FSAR change will be submitted to the NRC as required when the FSAR is revised. As a result of this reanalysis, the statement in the submitted ITS Bases that the hydrogen concentration in containment would reach 3.5 volume percent in 16 days is no longer up to date. To avoid having to make a correction to this Bases section when the next Diablo Canyon FSAR revision is issued, the "16 days" is being replaced with "after several days" in the ITS Bases as part of this response.

ATTACHED PAGES:

Encl 5B B3.6-51, B3.6-54

For Information Only Pages:

Encl 5B B3.6-50

B 3.6 CONTAINMENT SYSTEMS

B 3.6.8 Hydrogen Recombiners (~~Atmospheric, Subatmospheric, Ice Condenser, and Dual) (if permanently installed)~~

BASES

BACKGROUND

The function of the hydrogen recombiners is to eliminate the potential breach of containment due to a hydrogen-oxygen reaction.

Per 10 CFR 50.44, "Standards for Combustible Gas Control Systems in Light-Water-Cooled Reactors" (Ref. 1), and GDC 41, "Containment Atmosphere Cleanup" (Ref. 2), hydrogen recombiners are required to reduce the hydrogen concentration in the containment following a loss of coolant accident (LOCA) or steam line break (SLB). The recombiners accomplish this by recombining hydrogen and oxygen to form water vapor. The vapor remains in containment, thus eliminating any discharge to the environment. The hydrogen recombiners are manually initiated since flammable limits would not be reached until several days after a Design Basis Accident (DBA).

Two 100% capacity independent hydrogen recombiner systems are provided. Each consists of controls located in the control room, a power supply and a recombiner. Recombination is accomplished by heating a hydrogen-air mixture above 1150°F. ~~The resulting water vapor and discharge gases are cooled prior to discharge from the recombiner.~~ A single recombiner is capable of maintaining the hydrogen concentration in containment below the 4.1 volume percent (v/o) flammability limit. Two recombiners are provided to meet the requirement for redundancy and independence. Each recombiner is powered from a separate Engineered Safety Features bus, and is provided with a separate power panel and control panel.

APPLICABLE SAFETY ANALYSES

The hydrogen recombiners provide for the capability of controlling the bulk hydrogen concentration in containment to less than the lower flammable concentration of 4.1 v/o following a DBA. This control would prevent a containment wide hydrogen burn, thus ensuring the pressure and temperature assumed in the analyses are not exceeded. The limiting DBA relative to hydrogen generation is a LOCA. Hydrogen may accumulate in containment following a LOCA as a result of:

a. A metal steam reaction between the zirconium fuel rod cladding and the reactor coolant;

b. Radiolytic decomposition of water in the Reactor Coolant System (RCS) and the containment sump;

c. Hydrogen in the RCS at the time of the LOCA (i.e., hydrogen dissolved in the reactor coolant and hydrogen gas in the pressurizer vapor space); or

(Continued)

BASES (Continued)

d. Corrosion of metals exposed to containment spray and Emergency Core Cooling System solutions.

To evaluate the potential for hydrogen accumulation in containment following a LOCA, the hydrogen generation as a function of time following the initiation of the accident is calculated. Conservative assumptions recommended by Reference ~~3~~ 4 are used to maximize the amount of hydrogen calculated. Q3.6.8-7

Based on the conservative assumptions used to calculate the hydrogen concentration versus time after a LOCA, the hydrogen concentration in the primary containment would reach 3.5 v/o ~~about 16 days~~ after several days after the LOCA and 4.0 v/o about 2 days later if no recombiner was functioning (Ref. 3). Initiating the hydrogen recombiners when the primary containment hydrogen concentration reaches 3.5 v/o will maintain the hydrogen concentration in the primary containment below flammability limits.

DC-ALL-002

The hydrogen recombiners are designed such that, with the conservatively calculated hydrogen generation rates discussed above, a single recombiner is capable of limiting the peak hydrogen concentration in containment to less than 4.0 v/o (Ref. ~~4~~ 3). The Hydrogen Purge System is ~~similarly~~ designed and constructed such that ~~one of two redundant trains~~ it is Design Class I (for Quality and electrical power) but not redundant. As such, it is an adequate backup to the redundant hydrogen recombiners since it would be relied upon only in the event of a non-design basis condition.

The hydrogen recombiners satisfy Criterion 3 of ~~the NRC Policy Statement~~ 10CFR50.36(c)(2)(ii).

LCO

Two hydrogen recombiners must be OPERABLE. This ensures operation of at least one hydrogen recombiner in the event of a worst case single active failure.

Operation with at least one hydrogen recombiner ensures that the post LOCA hydrogen concentration can be prevented from exceeding the flammability limit.

APPLICABILITY

In MODES 1 and 2, two hydrogen recombiners are required to control the hydrogen concentration within containment below its flammability limit of 4.1 v/o following a LOCA, assuming a worst case single failure.

In MODES 3 and 4, both the hydrogen production rate and the total hydrogen produced after a LOCA would be less than that calculated for the DBA LOCA. Also, because of the limited time in these MODES, the probability of an accident requiring the hydrogen recombiners is low. Therefore, the hydrogen recombiners are not required in MODE 3 or 4.

(Continued)

BASES

REFERENCES

1. 10 CFR 50.44.

2. 10 CFR 50, Appendix A, GDC 41.

~~3. Regulatory Guide 1.7, Revision 2.~~

43. FSAR Section 6.2.5.

4. Regulatory Guide 1.7, Revision 2 Q3.6.8-7

3/4.6.4.1 Hydrogen Analyzers/Monitors

ADDITIONAL INFORMATION NO: Q 3/4.6.4.1-1 **APPLICABILITY:** DC, CP

REQUEST:

CTS 3/4.6.4.1

CTS 3/4.6.4.1 Hydrogen Monitors has been moved from CTS 3/4.b to ITS 3.3.3. No justification has been provided for this Administrative change to CTS 3/4.6.

Comment: Provide a discussion and justification for this Administrative change.

FLOG RESPONSE: DOC 12-01-A states that the hydrogen monitoring specification is moved to improved STS Section 3.3.3 concerning Post Accident Monitoring (PAM) instrumentation for consistency with NUREG-1431. NUREG-1431 locates the PAM instrumentation specification so that all PAM instruments are in one specification. This eliminates any potential overlap or duplication of specifications and allows the operators to refer to a single specification for PAM instrument inoperability. The movement of the hydrogen monitoring instrumentation specification to the PAM instrument specification was deemed to be an administrative change since there were no technical changes made as a result of the move. The only technical changes to the CTS are as a result of maintaining consistency with NUREG-1431 and these changes are justified by the appropriate DOCs.

ATTACHED PAGES:

None

ADDITIONAL INFORMATION COVER SHEET

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

REQUEST: LAs 119/117 and 118/116 were issued 7/13/97 and addressed CTS surveillance interval increases due to 24-month fuel cycles. These changes on pages affected by NRC comment numbers are indicated with "DC-ALL-001." These changes were previously submitted to the NRC in an errata to LAR 97-09 via DCL-98-003 (dated January 8, 1998).

ATTACHED PAGES:

See notations on applicable pages for each comment number.

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."

ATTACHED PAGES:

See notations on applicable pages for each comment number.

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: TR 3.6-002 **APPLICABILITY:** DC, CP

REQUEST: This change only updates the Traveler status page to show the current revision of TSTF-30 (Rev. 2). No changes were required to the submittal since they had already been incorporated.

ATTACHED PAGES:

Encl. 5A Traveler page

Industry Travelers Applicable to Section 3.6

TRAVELER #	STATUS	DIFFERENCE #	COMMENTS
TSTF-17, Rev. 1	Incorporated	3.6-2	NRC approved.
TSTF-30, Rev. ~~1~~ 2 TR 3.6-002	Incorporated	3.6-4	Not applicable to Wolf Creek and Callaway.
TSTF-45, Rev. 1	Incorporated	3.6-5	NRC approved.
TSTF-46, Rev. 1	Incorporated	3.6-7	NRC approved.
TSTF-51	Not incorporated	N/A	Not NRC approved as of traveler cut-off date.
TSTF-52 Q3.6.1-6	Incorporated	3.6-1	Incorporated draft Rev. 1 per Q3.6.1-6
TSTF-145	Not incorporated	N/A	NRC approved as of traveler cut-off date.
~~WOG-91~~ TSTF-269	Incorporated	3.6-11, 3.6-12	

Q3.6.3-11

ADDITIONAL INFORMATION COVER SHEET

ADDITIONAL INFORMATION NO: DC 3.6-ED **APPLICABILITY:** DC

REQUEST: Various editorial changes that do not impact the technical content of the submittal or other FLOG members.

Changes are noted with DC-3.6-ED in the right margin and noted below:

1) Enclosure 2, page 3/4 6-17, CTS new SR to perform channel check at least once per 31 days to verify hydrogen analyzer/monitor operability had not included the words "if energized."
2) Enclosure 3A, page 14, DOC 13-05-LS23 was changed to be consistent with other FLOG submittals, specifically Wolf Creek and Callaway.
3) B3.6-15, delete "Attachment 7.10" in first paragraph. The referenced attachment to procedure AD13.DC1 no loner exists.
4) B3.6-26, delete "Attachment 7.10" in Reference 5 for same reason noted above in 1).

ATTACHED PAGES:

Enclosure 2	3/4 6-17
Enclosure 3A	14
Enclosure 5B	B3.6-15
Enclosure 5B	B3.6-26

CONTAINMENT SYSTEMS

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN ANALYZERS/MONITORS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two independent containment hydrogen analyzers/monitors shall be OPERABLE.

APPLICABILITY: MODES 1, ~~and~~ 2 and 3. 12-02-M

ACTION: LCO 3.0.4 is not applicable. 13-05-LS23

a. With one hydrogen analyzer/monitor inoperable, restore the inoperable analyzer/monitor to OPERABLE status within 30 days or ~~be in at least HOT STANDBY within the next 6 hours~~ submit a Special Report in accordance with 10 CFR 50.4 within the following 14 days outlining the preplanned alternate method of monitoring, the cause of the inoperability and the plans and schedule for restoring the hydrogen analyzer/monitor to OPERABLE status. 12-03-LS15

b. With both hydrogen analyzer/monitors inoperable, restore at least one analyzer/monitor to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and be in HOT SHUTDOWN within the next 6 hours. 12-04-M

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen analyzer/monitor shall be demonstrated OPERABLE at least once per ~~92 days~~ 18 months by performing a CHANNEL CALIBRATION ~~using a zero and span gas~~. 12-05-LS16 12-06-LG

(new) Perform CHANNEL CHECK at least once per 31 days to verify hydrogen analyzer/monitor OPERABLE. (if energized) 12-07-M

DC 3.6ED

CHANGE NUMBER	NSHC	DESCRIPTION
13-04	LG	The SR to perform a CHANNEL CALIBRATION on all the hydrogen recombiner instrumentation is moved to a Licensee controlled document in accordance with NUREG-1431. These calibrations and any necessary compensatory measures (i.e., substitute test instrumentation) will be controlled administratively by the plant preventive maintenance and operational procedures. This change is acceptable based on the system redundancy, available alternate means of controlling hydrogen, the fact the recombiners are controlled manually, and the instrumentation does not provide essential control or interlock function. In addition, the functional test required by the TS every ~~18~~ 24 months verifies the operation of the hydrogen recombiner instrumentation. This change is consistent with NUREG-1431. DC-AU-001
13-05	LS23	Added statement that LCO 3.0.4 is not applicable to ACTION. ~~This allowance is based upon the pressure of another 100% hydrogen recombiner, the hydrogen purge system and the time available for operator action after a LOCA.~~ DC-36ED consistent with the justification provided in NUREG-1431, Rev. 1 Bases 3.6.8, Action A.1.

BASES (Continued)

LCO

Containment isolation valves form a part of the containment boundary. The containment isolation valves' safety function is related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during a DBA. The automatic power operated isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The 48 inch Containment Purge supply and exhaust ~~and 12 inch Hydrogen Purge~~ valves and the Pressure/Vacuum Relief valves must ~~be maintained sealed closed [or~~ have blocks installed to prevent full opening~~]~~. ~~[~~ These blocked ~~purge~~ valves also actuate on an automatic isolation signal. ~~]~~ The valves covered by this LCO are listed along with their associated stroke times in ~~the FSAR Technical Requirements Manual~~ Plant Procedure AD13 DC1 ~~, Attachment 7.10~~ (Ref. ~~2~~ 5). DC 36-ED

~~The~~ Normally closed passive containment isolation valves/devices are considered OPERABLE when manual valves are closed, automatic valves are de-activated and secured in their closed position, blind flanges are in place, and closed systems are intact ~~These passive isolation valves/devices are those listed in Reference X.~~ 5 → remove strike-out Q3.6.3-42

Containment Purge supply and exhaust valves, ~~Hydrogen Purge,~~ and Containment Pressure/Vacuum Relief valves with resilient seals ~~[and secondary containment bypass valves]~~ must meet additional leakage rate surveillance frequency requirements. The other containment isolation valve leakage rates are addressed by LCO 3.6.1, "Containment," ~~as Type C testing~~.

This LCO provides assurance that the containment isolation valves ~~and the Containment Purge supply and exhaust, Hydrogen Purge, and Containment Pressure/Vacuum Relief purge valves~~ will perform their designed safety function to minimize the loss of reactor coolant inventory and establish the containment boundary during accidents.

The LCO is modified by a Note stating that the Main Steam Safety Valves, Main Steam Isolation Valves, Feedwater Isolation Valves, and Atmospheric Dump Valves are not addressed in this LCO. These penetration flow paths credit the steam generators and piping inside containment as a containment isolation barrier (i.e., closed system). These valves are addressed by LCO 3.7.1 "Main Steam Safety Valves (MSSVs)", LCO 3.7.2 "Main Steam Isolation Valves (MSIVs)", LCO 3.7.3 "Main Feedwater Isolation Valves (MFIVs), ~~Main Feedwater Regulating Valves (MFRVs), and Associated Bypass Valves~~", and LCO 3.7.4 "Atmospheric Dump Valves (ADVs)" which provide the appropriate Required Actions in the event these valves are inoperable. Insert Q3.6.3-10

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES.

(Continued)

SR 3.6.3.11 Not Used

~~This SR ensures that the combined leakage rate of all shield building bypass leakage paths is less than or equal to the specified leakage rate. This provides assurance that the assumptions in the safety analysis are met. The leakage rate of each bypass leakage path is assumed to be the maximum pathway leakage (leakage through the worse of the two isolation valves) unless the penetration is isolated by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. In this case, the leakage rate of the isolated bypass leakage path is assumed to be the actual pathway leakage through the isolation device. If both isolation valves in the penetration are closed, the actual leakage rate is the lesser leakage rate of the two valves. This method of quantifying maximum pathway leakage is only to be used for this SR (i.e., Appendix J maximum pathway leakage limits are to be quantified in accordance with Appendix J). The Frequency is required by 10 CFR 50, Appendix J, as modified by approved exemptions (and therefore, the Frequency extensions of SR 3.0.2 may not be applied), since the testing is an Appendix J, Type C test. This SR simply imposes additional acceptance criteria.~~

~~[By pass leakage is considered part of L_a. [Reviewer's Note: Unless specifically exempted].]~~

REFERENCES

1. FSAR, Section 15.

2. FSAR, Section 6.2.

3. Standard Review Plan 6.2.4.

~~3~~ 4. Generic Issue B-20, "Containment Leakage Due to Seal Deterioration."

~~4. Generic Issue B-24, "Containment Purge Valve Reliability"~~

5. ~~Technical Requirements Manual 2.1 "Containment Isolation Valves"~~ Diablo Canyon Power Plant Administrative Procedure, AD13.DC1, ~~Attachment 7.10~~

DC 3.6-ED
