

Docket Nos. 50-275
and 50-323

June 11, 1990

Mr. J. D. Shiffer, Vice President
Nuclear Power Generation
c/o Nuclear Power Generation, Licensing
Pacific Gas and Electric Company
77 Beale Street, Room 1451
San Francisco, California 94106

Dear Mr. Shiffer:

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SUBJECT: ISSUANCE OF AMENDMENTS (TAC NOS. 68036 AND 68037)

The Commission has issued the enclosed Amendment No. 55 to Facility Operating License No. DPR-80 and Amendment No. 54 to Facility Operating License No. DPR-82 for the Diablo Canyon Power Plant (DCPP), Units 1 and 2, respectively. The amendments change the Diablo Canyon combined Technical Specifications (TS) in response to your application for license amendments dated April 18, 1988, as supplemented by letter dated December 21, 1989 (Reference LAR 88-05). The amendments revise Technical Specification (TS) Sections 3.0.4, 4.0.3, and 4.0.4, and the associated TS Bases sections, which define the applicability of limiting conditions for operation and surveillance requirements. The amendments also delete the exceptions to TS 3.0.4 in a number of TS. The TS changes are in accordance with the recommendations of Generic Letter (GL) 87-09 to provide greater operational flexibility and preclude unnecessary plant shutdowns and to allow passage through or to operational modes as required to comply with Action Requirements.

A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY H. ROOD

Harry Rood, Senior Project Manager
Project Directorate V
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 55 to DPR-80
2. Amendment No. 54 to DPR-82
3. Safety Evaluation

cc w/enclosures:

See next page

DRSP/LA:PD5
PShea*
05/10/90

DRSP/PM:PD5
HRood*
05/09/90

OGC
BMB*
05/17/90

DRSP/PM(A):PD5
JLarkins
5/11/90

* See previous concurrence

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

A handwritten signature in cursive script that reads "Harry Rood".

Harry Rood, Senior Project Manager
Project Directorate V
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 55 to DPR-80
2. Amendment No. 54 to DPR-82
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. J. D. Shiffer
Pacific Gas and Electric Company

Diablo Canyon

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNIT 1
DOCKET NO. 50-275
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 55
License No. DPR-80

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Pacific Gas & Electric Company (the licensee), dated April 18, 1988, as supplemented by letter dated December 21, 1989, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-80 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 55, are hereby incorporated in the license. Pacific Gas & Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

3. This license amendment becomes effective at the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John T. Larkins, Acting Director
Project Directorate V
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 11, 1990



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNIT 2
DOCKET NO. 50-323
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 54
License No. DPR-82

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Pacific Gas & Electric Company (the licensee), dated April 18, 1988, as supplemented by letter dated December 21, 1989, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-82 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 54, are hereby incorporated in the license. Pacific Gas & Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

3. This license amendment becomes effective at the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John T. Larkins, Acting Director
Project Directorate V
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 11, 1990

ATTACHMENT TO LICENSE AMENDMENT NOS. 55 AND 54
FACILITY OPERATING LICENSE NOS. DPR-80 and DPR-82
DOCKET NOS. 50-275 AND 50-323

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. Overleaf pages are also included.

<u>Remove Page</u>	<u>Insert Page</u>
3/4 0-1	3/4 0-1
3/4 0-2	3/4 0-2
3/4 3-2	3/4 3-2
3/4 3-3	3/4 3-3
3/4 3-4	3/4 3-4
3/4 3-15	3/4 3-15
3/4 3-17	3/4 3-17
3/4 3-18	3/4 3-18
3/4 3-19	3/4 3-19
3/4 3-21	3/4 3-21
3/4 3-36	3/4 3-36
3/4 3-38	3/4 3-38
3/4 3-40	3/4 3-40
3/4 3-41	3/4 3-41
3/4 3-44	3/4 3-44
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3/4 3-55	3/4 3-55
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3/4 7-26	3/4 7-26
3/4 7-28	3/4 7-28
3/4 7-30	3/4 7-30
3/4 7-32	3/4 7-32
3/4 7-33	3/4 7-33
3/4 7-36	3/4 7-36
3/4 7-40	3/4 7-40
3/4 8-23	3/4 8-23
3/4 9-7	3/4 9-7
3/4 9-10	3/4 9-10
3/4 9-12	3/4 9-12
3/4 9-13	3/4 9-13

ATTACHMENT TO LICENSE AMENDMENT NOS. 55 AND 54 (CONTINUED)

FACILITY OPERATING LICENSE NOS. DPR-80 and DPR-82

DOCKET NOS. 50-275 AND 50-323

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. Overleaf pages are also included.

<u>Remove Page</u>	<u>Insert Page</u>
3/4 11-5	3/4 11-5
3/4 11-6	3/4 11-6
3/4 11-7	3/4 11-7
3/4 11-12	3/4 11-12
3/4 11-13	3/4 11-13
3/4 11-14	3/4 11-14
3/4 11-15	3/4 11-15
3/4 11-16	3/4 11-16
3/4 11-17	3/4 11-17
3/4 11-18	3/4 11-18
3/4 12-2	3/4 12-2
3/4 12-12	3/4 12-12
3/4 12-13	3/4 12-13
B 3/4 0-1	B 3/4 0-1
-----	B 3/4 0-1a
-----	B 3/4 0-1b
B 3/4 0-2	B 3/4 0-2
-----	B 3/4 0-2a
B 3/4 0-3	B 3/4 0-3

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.

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

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

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

This specification is not applicable in MODE 5 or 6.

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

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

- a. Whenever the Limiting Conditions for Operation refers to systems or components which are shared by both units, the ACTION requirements will apply to both units simultaneously. This will be indicated in the ACTION section;
- b. Whenever the Limiting Conditions for Operation applies to only one unit, this will be identified in the APPLICABILITY section of the specification; and
- c. Whenever certain portions of a specification contain operating parameters, Setpoints, etc., which are different for each unit, this will be identified in parentheses, footnotes or body of the requirement.

APPLICABILITY

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.

4.0.2 Each Surveillance Requirement shall be performed within the specified time interval with:

- a. A maximum allowable extension not to exceed 25% of the surveillance interval, but
- b. The combined time interval for any 3 consecutive surveillance intervals shall not exceed 3.25 times the specified surveillance interval.

4.0.3 Failure to perform a Surveillance Requirement within the allowed surveillance interval defined by Specification 4.0.2 shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours. Exceptions to these requirements are stated in the individual specifications. Surveillance Requirements do not have to be performed on inoperable equipment.

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

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

- a. Inservice inspection of ASME Code Class 1, 2 and 3 components and inservice testing of ASME Code Class 1, 2 and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50, Section 50.55a(g)(6)(i);
- b. Surveillance intervals specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda for the inservice inspection and testing activities required by the ASME Boiler and Pressure Vessel Code and applicable Addenda shall be applicable as follows in these Technical Specifications:

ASME BOILER AND PRESSURE VESSEL CODE AND APPLICABLE ADDENDA TERMINOLOGY FOR INSERVICE INSPECTION AND TESTING ACTIVITIES

Weekly
Monthly
Quarterly or every 3 months
Semiannually or every 6 months
Every 9 months
Yearly or annually

REQUIRED FREQUENCIES FOR PERFORMING INSERVICE INSPECTION AND TESTING ACTIVITIES

At least once per 7 days
At least once per 31 days
At least once per 92 days
At least once per 184 days
At least once per 276 days
At least once per 366 days

TABLE 3.3-1
REACTOR TRIP SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1. Manual Reactor Trip	2 2	1 1	2 2	1, 2 3*, 4*, 5*	1 11
2. Power Range, Neutron Flux					
a. High Setpoint	4	2	3	1, 2	2
b. Low Setpoint	4	2	3	1###, 2	2
3. Power Range, Neutron Flux High Positive Rate	4	2	3	1, 2	2
4. Power Range, Neutron Flux High Negative Rate	4	2	3	1, 2	2
5. Intermediate Range, Neutron Flux	2	1	2	1###, 2	3
6. Source Range, Neutron Flux					
a. Startup	2	1	2	2##	4
b. Shutdown	2	1	2	3*, 4*, 5*	11
c. Shutdown	2	0	1	3, 4, and 5	5
7. Overtemperature ΔT	4	2	3	1, 2	6
8. Overpower ΔT	4	2	3	1, 2	6
9. Pressurizer Pressure-Low	4	2	3	1	6
10. Pressurizer Pressure-High	4	2	3	1, 2	6
11. Pressurizer Water Level-High	3	2	2	1	6

TABLE 3.3-1 (Continued)
REACTOR TRIP SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
12. Reactor Coolant Flow-Low					
a. Single Loop (Above P-8)	3/loop	2/loop in one loop	2/loop in each loop	1	6
b. Two Loops (Above P-7 and below P-8)	3/loop	2/loop in two loops	2/loop in each loop	1	6
13. Steam Generator Water Level-Low-Low	3/S.G.	2/S.G. in one S.G.	2/S.G. in each S.G.	1, 2	6(1)
14. Steam Generator Water Level-Low Coincident With Steam/Feedwater Flow Mismatch	2 S.G. level and 2 stm./feed flow mismatch per S.G.	1 S.G. level coincident with 1 stm./feed flow mismatch in same S.G.	1 S.G. level and 2 stm./feed flow mismatch, or 2 S.G. level and 1 stm./feed flow mismatch per S.G.	1, 2	6
15. Undervoltage-Reactor Coolant Pumps	2/bus	1/bus both busses	1/bus	1	6(1)
16. Underfrequency-Reactor Coolant Pumps	3/bus	2 on same bus	2/bus	1	6
17. Turbine Trip					
a. Low Autostop Oil Pressure	3	2	2	1	7
b. Turbine Stop Valve Closure	4	4	4	1	7

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

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

TABLE 3.3-3

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1. Safety Injection (Reactor Trip, Feedwater Isolation, Start Diesel Generators, Containment Fan Cooler Units, and Component Cooling Water)					
a. Manual Initiation	2	1	2	1, 2, 3, 4	19
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
c. Containment Pressure-High	3	2	2	1, 2, 3, 4	15
d. Pressurizer Pressure-Low	4	2	3	1, 2, 3#	20
e. Differential Pressure Between Steam Lines-High	3/steam line	2/steam line any steam line	2/steam line	1, 2, 3	15
f. Steam Flow in Two Steam Lines-High	2/steam line	1/steam line any 2 steam lines	1/steam line	1, 2, 3##	15
Coincident With Either T _{avg} -Low-Low	1 T _{avg} /loop	1 T _{avg} any 2 loops	1 T _{avg} any 3 loops	1, 2, 3##	15
Or					
Steam Line Pressure-Low	1 pressure/ loop	1 pressure any 2 loops	1 pressure any 3 loops	1, 2, 3##	15

TABLE 3.3-3 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
2. Containment Spray					
a. Manual	2	2 with 2 coincident switches	2	1, 2, 3, 4	19
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
c. Containment Pressure- High-High	4	2	3	1, 2, 3	17
3. Containment Isolation					
a. Phase "A" Isolation					
1) Manual	2	1	2	1, 2, 3, 4	19
2) Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
3) Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
b. Phase "B" Isolation					
1) Manual	2	2 with 2 coincident switches	2	1, 2, 3, 4	19

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
3. Containment Isolation (Continued)					
2) Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
3) Containment Pressure-High-High	4	2	3	1, 2, 3	17
c. Containment Ventilation Isolation					
1) Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	18
2) Plant Vent Noble Gas Activity-High (RM-14A and 14B)	2	1	2	1, 2, 3, 4	18
3) Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
4. Steam Line Isolation					
a. Manual	1 manual switch/steam line	1 manual switch/steam line	1 manual switch/operating steam line	1, 2, 3, 4	24

TABLE 3.3-3 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
4. Steam Line Isolation (Continued)					
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	22
c. Containment Pressure- High-High	4	2	3	1, 2, 3	17
d. Steam Flow in Two Steam Lines-High	2/steam line	1/steam line any 2 steam lines	1/steam line	1, 2, 3##	15
Coincident With Either T _{avg} -Low-Low	1 T _{avg} /loop	1 T _{avg} any 2 loops	1 T _{avg} any 3 loops	1, 2, 3##	15
Or					
Steam Line Pressure-Low	1 pressure/ loop	1 pressure any 2 loops	1 pressure any 3 loops	1, 2, 3##	15
5. Turbine Trip & Feedwater Isolation					
a. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2	25
b. Steam Generator Water Level- High-High	3/stm. gen.	2/stm. gen. in any operat- ing stm. gen.	2/stm. gen. in each oper- ing stm. gen.	1, 2	15

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
6. Auxiliary Feedwater					
a. Manual Initiation	1 manual switch/pump	1 manual switch/pump	1 manual switch/pump	1, 2, 3	24
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	22
c. Stm. Gen. Water Level- Low-Low					
1) Start Motor- Driven Pumps	3/stm. gen.	2/stm. gen. in any opera- ting stm. gen.	2/stm. gen. in each operating stm. gen.	1, 2, 3	15
2) Start Turbine- Driven Pump	3/stm. gen.	2/stm. gen. in any 2 operating stm. gen.	2/stm. gen. in each operating stm. gen.	1, 2, 3	15
d. Undervoltage-RCP Bus Start Turbine- Driven Pump	2/bus	1/bus on both busses	1/bus	1	20
e. Safety Injection Start Motor-Driven Pumps	See Item 1. above for all Safety Injection initiating functions and requirements.				

TABLE 3.3-3 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
7. Loss of Power (4.16 kV Emergency Bus Undervoltage)					
a. First Level				1, 2, 3, 4	
1) Diesel Start	1/Bus	1/Bus	1/Bus		16
2) Initiation of Load Shed	2/Bus	2/Bus	2/Bus		16
b. Second Level				1, 2, 3, 4	
1) Undervoltage Relays	2/Bus	2/Bus	2/Bus		16
2) Timers to Start Diesel	1/Bus	1/Bus	1/Bus		16
3) Timers to Shed Load	1/Bus	1/Bus	1/Bus		16
8. Engineered Safety Features Actuation System Interlocks					
a. Pressurizer Pressure, P-11	3	2	2	1, 2, 3	21
b. Low-Low T_{avg} , P-12	4	2	3	1, 2, 3	21
c. Reactor Trip, P-4	2	2	2	1, 2, 3	23

TABLE 3.3-3 (Continued)

TABLE NOTATIONS

- # Trip function may be blocked in this MODE below the P-11 (Pressurizer Pressure Interlock) Setpoint.
- ## Trip function may be blocked in this MODE below the P-12 (Low-Low T_{avg} Interlock) Setpoint.

ACTION STATEMENTS

- ACTION 14 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.
- ACTION 15 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed until performance of the next required ANALOG CHANNEL OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour.
- ACTION 16 - With the number of OPERABLE Channels one less than the Total Number of Channels, declare the affected Emergency Diesel Generator(s) inoperable and comply with the ACTION statements of Specification 3.8.1.1; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.
- ACTION 17 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition and the Minimum Channels OPERABLE requirement is met. One additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.
- ACTION 18 - With less than the Minimum Channels OPERABLE requirement, operation may continue provided the containment purge supply and exhaust valves (RCV-11, 12, FCV 660, 661, 662, 663, 664) are maintained closed.

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

- ACTION 19 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- ACTION 20 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- a. The inoperable channel is placed in the tripped condition within 1 hour, and
 - b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 2 hours for surveillance testing of other channels per Specification 4.3.2.1.
- ACTION 21 - With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive annunciator window(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.
- ACTION 22 - With the number of OPERABLE Channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.
- ACTION 23 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.
- ACTION 24 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated pump or valve inoperable and take the ACTION required by Specification 3.7.1.5 or 3.7.1.2 as applicable.
- ACTION 25 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.

TABLE 4.3-2 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALI- BRATION</u>	<u>ANALOG CHANNEL OPERA- TIONAL TEST</u>	<u>TRIP ACTUATING DEVICE OPERA- TIONAL TEST</u>	<u>ACTUATION LOGIC TEST</u>	<u>MASTER RELAY TEST</u>	<u>SLAVE RELAY TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
6. Auxiliary Feedwater (Continued)								
d. Undervoltage - RCP	N.A.	R	N.A.	R	N.A.	N.A.	N.A.	1
e. Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
7. Loss of Power								
a. 4.16 kV Emergency Bus Level 1	N.A.	R	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
b. 4.16 kV Emergency Bus Level 2	N.A.	R	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
8. Engineered Safety Feature Actuation System Interlocks								
a. Pressurizer Pressure, P-11	N.A.	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3
b. Low-Low T _{avg} , P-12	N.A.	R	Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3
c. Reactor Trip, P-4	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3

TABLE NOTATIONS

- (1) Each train shall be tested at least every 62 days on a STAGGERED TEST BASIS.
(2) For the Plant Vent Activity-High monitor only, a CHANNEL FUNCTIONAL TEST shall be performed at least once every 31 days.

INSTRUMENTATION

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING FOR PLANT OPERATIONS

LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: As shown in Table 3.3-6.

ACTION:

- a. With a radiation monitoring channel Alarm/Trip Setpoint for plant operations exceeding the value shown in Table 3.3-6, adjust the Setpoint to within the limit within 4 hours or declare the channel inoperable.
- b. With one or more radiation monitoring channels for plant operations inoperable, take the ACTION shown in Table 3.3-6.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

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

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>ACTION</u>
1. Fuel Storage Area				
a. Spent Fuel Pool	1	*	≤ 75 mR/hr	30 & 32**
b. New Fuel Storage	1	*	≤ 15 mR/hr	30 & 32**
2. Control Room Ventilation Mode Change	2***	A11	≤ 2 mR/hr	34
3. Containment				
a. Gaseous Activity				
1) Containment Ventilation Isolation (RM-14A or 14B)	1	6	Per Specification 3.3.3.10	33
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31
b. Particulate Activity				
RCS Leakage	1	1, 2, 3, 4	N.A.	31

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

**With irradiated fuel in the spent fuel pool.

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

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

- ACTION 30 - With less than the Minimum Channels OPERABLE requirement, operation may continue for up to 30 days provided an appropriate portable continuous monitor with the same Alarm Setpoint or an individual qualified in radiation protection procedures with a radiation dose rate monitoring device is provided in the fuel storage pool area. Restore the inoperable monitors to OPERABLE status within 30 days or suspend all operations involving fuel movement in the fuel storage pool areas.
- ACTION 31 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1. The provisions of Specification 3.0.4 are not applicable.
- ACTION 32 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12.
- ACTION 33 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 34 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the Control Room Ventilation System in a recirculation mode with the HEPA filter and charcoal adsorber bank in operation.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
1. Fuel Storage Area				
a. Spent Fuel Pool	S	R	M	*
b. New Fuel Storage	S	R	M	*
2. Control Room Ventilation Mode Change	S	R	M	A11
3. Containment				
a. Gaseous Activity				
1) Containment Ventilation Isolation (RM-14A or 14B)	S	R	M	6
2) RCS Leakage	S	R	M	1, 2, 3, 4
b. Particulate Activity				
RCS Leakage	S	R	M	1, 2, 3, 4

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

INSTRUMENTATION

MOVABLE INCORE DETECTORS

LIMITING CONDITION FOR OPERATION

3.3.3.2 The Movable Incore Detection System shall be OPERABLE with:

- a. At least 75% of the detector thimbles,
- b. A minimum of two detector thimbles per core quadrant, and
- c. Sufficient movable detectors, drive, and readout equipment to map these thimbles.

APPLICABILITY: When the Movable Incore Detection System is used for:

- a. Recalibration of the Excore Neutron Flux Detection System, or
- b. Monitoring the QUADRANT POWER TILT RATIO, or
- c. Measurement of $F_{\Delta H}^N$, $F_Q(Z)$ and F_{xy} .

ACTION:

With the Movable Incore Detection System inoperable, do not use the system for the above applicable monitoring or calibration functions. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.2 The Movable Incore Detection System shall be demonstrated OPERABLE at least once per 24 hours by normalizing each detector output when required for:

- a. Recalibration of the Excore Neutron Flux Detection System, or
- b. Monitoring the QUADRANT POWER TILT RATIO, or
- c. Measurement of $F_{\Delta H}^N$, $F_Q(Z)$ and F_{xy} .

INSTRUMENTATION

SEISMIC INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.3 The seismic monitoring instrumentation[#] shown in Table 3.3-7 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With one or more seismic monitoring instruments inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the instrument(s) to OPERABLE status.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.3.1 Each of the above seismic monitoring instruments shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST at the frequencies shown in Table 4.3-4.

4.3.3.3.2 Each of the above seismic monitoring instruments actuated during a seismic event shall be restored to OPERABLE status within 24 hours and a CHANNEL CALIBRATION, as applicable, performed within 10 days following the seismic event. Data shall be retrieved from actuated instruments and analyzed to determine the magnitude of the vibratory ground motion. A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 14 days describing the magnitude, frequency spectrum and resultant effect upon facility features important to safety.

[#]The seismic monitoring instrumentation is common to both units but located in Unit 1 or common areas.

TABLE 3.3-7

SEISMIC MONITORING INSTRUMENTATION

<u>INSTRUMENTS AND SENSOR LOCATIONS</u>	<u>MEASUREMENT RANGE</u>	<u>MINIMUM INSTRUMENTS OPERABLE</u>
1. Triaxial Time-History Accelerographs		
a. Containment Base Slab, E1 89, 180°	$\pm 1g$	1*
b. Top Unit 1 Containment, E1 303.5, 225°	$\pm 2g$	1
c. Aux Building, E1 64	$\pm 1g$	1
2. Triaxial Peak Accelerographs		
a. Containment Base Slab, E1 89, 180°	$\pm 2g$	1
b. Top Unit 1 Containment, E1 303.5, 225°	$\pm 5g$	1
c. Intake near ASW Pump 1-2 Bay, E1 2	$\pm 2g$	1
d. Turbine Building, E1 85, Machine Shop	$\pm 2g$	1
e. Aux Building, E1 140, Hot Shop	$\pm 2g$	1
f. Aux Building, E1 140, Near Control Room Door	$\pm 2g$	1
3. Triaxial Response-Spectrum Recorders		
Containment Base Slab, E1 89, 180°	1.6 - 90 g 2-25.4 Hz	1

* With reactor control room indications or annunciation.

TABLE 4.3-4

SEISMIC MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENTS AND SENSOR LOCATIONS</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Triaxial Time-History Accelerographs			
a. Containment Base Slab, E1 89, 180°**	M*	R	SA
b. Top Unit 1 Containment, E1 303.5, 225°	M*	R	SA
c. Aux Building, E1 64	M*	R	SA
2. Triaxial Peak Accelerographs			
a. Containment Base Slab, E1 89, 180°	N.A.	R***	N.A.
b. Top Unit 1 Containment, E1 303.5, 225°	N.A.	R***	N.A.
c. Intake near ASW Pump 1-2 Bay, E1 2	N.A.	R***	N.A.
d. Turbine Building, E1 85, Machine Shop	N.A.	R***	N.A.
e. Aux Building, E1 140, Hot Shop	N.A.	R***	N.A.
f. Aux Building, E1 140, Near Control Room Door	N.A.	R***	N.A.
3. Triaxial Response-Spectrum Recorders			
Containment Base Slab, E1 89, 180°	N.A.	R***	N.A.

*Except seismic trigger.

**With reactor control room indications or annunciation.

***Channel calibration shall be in accordance with ANSI/ANS-2.2-1978.

INSTRUMENTATION

METEOROLOGICAL INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.4 The meteorological monitoring instrumentation channels[#] shown in Table 3.3-8 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With one or more required meteorological monitoring channels inoperable for more than 7 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.4 Each of the above meteorological monitoring instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK and CHANNEL CALIBRATION at the frequencies shown in Table 4.3-5.

[#]The meteorological monitoring instrumentation channels are common to both units.

TABLE 4.3-7
ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. Containment Pressure	M	R
2. Reactor Coolant Outlet Temperature - T_{hot} (Wide Range)	M	R
3. Reactor Coolant Inlet Temperature - T_{cold} (Wide Range)	M	R
4. Reactor Coolant Pressure - Wide Range	M	R
5. Pressurizer Water Level	M	R
6. Steam Line Pressure	M	R
7. Steam Generator Water Level - Narrow Range	M	R
8. Refueling Water Storage Tank Water Level	M	R
9. Containment Reactor Cavity Sump Level-Wide Range	M	R
10. Containment Recirculation Sump Level-Narrow Range	M	R
11. Auxiliary Feedwater Flow Rate	M	R
12. Reactor Coolant System Subcooling Margin Monitor	M	R
13. PORV Position Indicator	M	R
14. PORV Block Valve Position Indicator	M	R
15. Safety Valve Position Indicator	M	R
16. In Core Thermocouples	M	R
17. Main Steam Line Radiation Monitor	M	R
18. Containment Area Radiation Monitor-High Range	M	R*
19. Plant Vent Radiation Monitor-High Range	M	R
20. Reactor Vessel Level Indication System	M	R

*CHANNEL CALIBRATION may consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.

INSTRUMENTATION

CHLORINE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.3.3.7 Two independent Chlorine Detection Systems,[#] with their Alarm/Trip Setpoints adjusted to actuate at a chlorine concentration of less than or equal to 5 ppm, shall be OPERABLE.

APPLICABILITY: All MODES, when bulk chlorine gas is stored on the plant site.

ACTION:

- a. With one Chlorine Detection System inoperable, restore the inoperable system to OPERABLE status within 7 days or within the next 6 hours initiate and maintain operation of the Control Room Ventilation System in a recirculation mode with the HEPA filter and charcoal absorber system in operation.
- b. With both Chlorine Detection Systems inoperable, within 1 hour initiate and maintain operation of the Control Room Ventilation System in a recirculation mode with the HEPA filter and charcoal absorber system in operation.

SURVEILLANCE REQUIREMENTS

4.3.3.7 Each Chlorine Detection System shall be demonstrated OPERABLE by performance of a CHANNEL CHECK at least once per 12 hours and a CHANNEL FUNCTIONAL TEST at least once per 31 days. At least once per 18 months, the following inspections and maintenance shall be performed:

- a. Check constant head bottle level and refill as necessary,
- b. Clean the sensing cells,
- c. Check flow meter operation and clean or replace filters and air lines as necessary,
- d. Check air pump for proper operation, and
- e. Verify that the detector responds to chlorine.

[#]The Chlorine Detection System is common to both units and is installed in the normal intakes to the Control Room Ventilation System.

INSTRUMENTATION

FIRE DETECTION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 As a minimum, the fire detection instrumentation for each fire detection zone shown in Table 3.3-11 shall be OPERABLE.

APPLICABILITY: Whenever equipment protected by the fire detection instrument is required to be OPERABLE.

ACTION:

- a. With the number of OPERABLE fire detection instrument(s) less than the Minimum Instruments OPERABLE requirement of Table 3.3-11, within 1 hour establish a fire watch patrol to inspect the zone(s) with the inoperable instrument(s) at least once per hour, unless the instrument(s) is located inside the containment, then inspect the containment at least once per 8 hours or monitor the containment air temperature at least once per hour at the locations listed in Specification 4.6.1.5.
- b. Within 2 hours following a seismic event in excess of 0.02 g, each zone shown in Table 3.3-11 shall be inspected for fires. Within 72 hours an engineering evaluation shall be performed to verify the OPERABILITY of the Fire Detection System.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8.1 Each of the above required fire detection instruments which are accessible during plant operation shall be demonstrated OPERABLE at least once per 6 months by performance of a CHANNEL FUNCTIONAL TEST. Fire detectors which are not accessible during plant operation shall be demonstrated OPERABLE by the performance of a CHANNEL FUNCTIONAL TEST during each COLD SHUTDOWN exceeding 24 hours unless performed in the previous 6 months.

4.3.3.8.2 The supervision circuitry associated with the detector alarms of each of the above required fire detection instruments shall be demonstrated OPERABLE at least once per 6 months.

TABLE 3.3-11
FIRE DETECTION INSTRUMENTS
PANEL A

<u>ZONE</u>	<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENTS OPERABLE</u>	
		<u>SMOKE</u>	<u>HEAT OR FLAME</u>
1	Cable Spreading Room	10	4 ⁽¹⁾
3	4kV Switchgear Bus F Room	1	N.A.
	4kV Switchgear Bus G Room	1	N.A.
	4kV Switchgear Bus H Room	1	N.A.
	4kV Switchgear Ventilation Fan Room	1	N.A.
4	4kV Switchgear Bus F Cable Spreading Area	1	N.A.
	4kV Switchgear Bus G Cable Spreading Area	1	N.A.
	4kV Switchgear Bus H Cable Spreading Area	1	N.A.
7	Containment Electrical Penetration Zone 7	4	N.A.
8	Containment Electrical Penetration Zone 8	3	N.A.
9	Rod Control Programmer/Reactor Trip Breaker Area	3	N.A.
	Battery No. 1 Charger Room	1	N.A.
	Battery No. 2 Charger Room	1	N.A.
	Battery No. 3 Charger Room	1	N.A.
10	480 Volt Bus F Area	1	N.A.
	480 Volt Bus G Area	1	N.A.
	480 Volt Bus H Area	1	N.A.
	Hot Shutdown Panel	1	N.A.
12	Inside Containment	17 ⁽²⁾	N.A.
13	Control Room Ventilation Return/Exhaust	1	N.A.
14	Control Room Ventilation Return/Exhaust	1	N.A.
15	Outside the Auxiliary Salt Water Pump Room	1	N.A.

INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-12 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The Alarm/Trip Setpoints of these channels shall be determined in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION PROCEDURE (ODCP).

APPLICABILITY: At all times.

ACTION:

- a. With a radioactive liquid effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive liquid effluents monitored by the affected channel or declare the channel inoperable.
- b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-12. Restore the inoperable instrumentation to OPERABLE status within the time specified in the ACTION, or explain in the next Semiannual Radioactive Effluent Release Report pursuant to Specification 6.9.1.6 why this inoperability was not corrected within the time specified.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9.1 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST at the frequencies shown in Table 4.3-8.

4.3.3.9.2 At least one saltwater pump shall be determined operating and providing dilution to the discharge structure at least once per 4 hours whenever dilution is required to meet the limits of Specification 3.11.1.1.

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>		<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1.	Radioactivity Monitors Providing Alarm and Automatic Termination of Release		
a.	Liquid Radwaste Effluent Line (RM-18) [#]	1	40
b.	Steam Generator Blowdown Tank (RM-23)	1	41
2.	Flow Rate Measurement Devices		
a.	Liquid Radwaste Effluent Line (FR-20) [#]	1	43
b.	Steam Generator Blowdown Effluent Lines (FR-53)	1	43
c.	Oily Water Separator Effluent Line (FR-251) [#]	1	43
3.	Radioactivity Monitor Not Providing Automatic Termination of Release		
	Oily Water Separator Effluent Line (RM-3) [#]	1	42

[#]This Radioactive Liquid Effluent Monitoring Instrumentation is common to both units.

TABLE 4.3-8 (Continued)

TABLE NOTATION

- (1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if any of the following conditions exists:
 - a. Instrument indicates measured levels above the Alarm/Trip Setpoint (isolation and alarm), or
 - b. Relay control circuit failure (isolation only), or
 - c. Instrument indicates a downscale failure (alarm only), or
 - d. Instrument controls not set in operate mode (alarm only).
- (2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
 - a. Instrument indicates measured levels above the Alarm Setpoint, or
 - b. Circuit failure, or
 - c. Instrument indicates a downscale failure, or
 - d. Instrument controls not set in operate mode.
- (3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.
- (4) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous, periodic, or batch releases are made.

INSTRUMENTATION

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.10 The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specifications 3.11.2.1 and 3.11.2.5 are not exceeded. The Alarm/Trip Setpoints of these channels meeting Specification 3.11.2.1 shall be determined and adjusted in accordance with the methodology and parameters in the ODCP.

APPLICABILITY: As shown in Table 3.3-13.

ACTION:

- a. With a radioactive gaseous effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive gaseous effluents monitored by the affected channel, or declare the channel inoperable.
- b. With the number of OPERABLE radioactive gaseous effluent monitoring instrumentation channels less than the Minimum Channels OPERABLE, take the ACTION shown in Table 3.3-13. Restore the inoperable instrumentation to OPERABLE status within the time specified in the ACTION or explain in the next Semiannual Radioactive Effluent Release Report pursuant to Specification 6.9.1.6 why this inoperability was not corrected within the time specified.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.10 Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST at the frequencies shown in Table 4.3-9.

REACTOR COOLANT SYSTEM

OVERPRESSURE PROTECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.9.3 The following Overpressure Protection Systems shall be OPERABLE:

- a. Two power-operated relief valves (PORVs) with a lift setting of less than or equal to 450 psig, or the Reactor Coolant System (RCS) depressurized with an RCS vent of greater than or equal to 2.07 square inches.

APPLICABILITY: MODE 4 when the temperature of any RCS cold leg is less than or equal to 323°F, MODE 5 and MODE 6 with the reactor vessel head on.

ACTION:

- a. With one PORV inoperable, restore the inoperable PORV to OPERABLE status within 7 days or depressurize and vent the RCS through a 2.07 square inch vent(s) within the next 8 hours.
- b. With both PORVs inoperable, depressurize and vent the RCS through a 2.07 square inch vent(s) within 8 hours.
- c. In the event either the PORVs or the RCS vent(s) are used to mitigate an RCS pressure transient, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days. The report shall describe the circumstances initiating the transient, the effect of the PORVs or vent(s) on the transient, and any corrective action necessary to prevent recurrence.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS

4.4.9.3.1 Each PORV shall be demonstrated OPERABLE by:

- a. Performance of a CHANNEL FUNCTIONAL TEST on the PORV actuation channel, but excluding valve operation, within 31 days prior to entering a condition in which the PORV is required OPERABLE;
- b. Performance of a CHANNEL CALIBRATION on the PORV actuation channel at least once per 18 months; and
- c. Verifying the PORV isolation valve is open at least once per 72 hours when the PORV is being used for overpressure protection.

4.4.9.3.2 The RCS vent(s) shall be verified to be open at least once per 12 hours* when the vent(s) is being used for overpressure protection.

*Except when the vent pathway is provided with a valve which is locked, sealed, or otherwise secured in the open position, then verify these valves open at least once per 31 days.

REACTOR COOLANT SYSTEM

3/4.4.10 STRUCTURAL INTEGRITY

LIMITING CONDITION FOR OPERATION

3.4.10 The structural integrity of ASME Code Class 1, 2 and 3 components shall be maintained in accordance with Specification 4.4.10.

APPLICABILITY: All MODES.

ACTION:

- a. With the structural integrity of any ASME Code Class 1 component(s) not conforming to the above requirements, restore the structural integrity of the affected component(s) to within its limit or isolate the affected component(s) prior to increasing the Reactor Coolant System temperature more than 50°F above the minimum temperature required by NDT considerations.
- b. With the structural integrity of any ASME Code Class 2 component(s) not conforming to the above requirements, restore the structural integrity of the affected component(s) to within its limit or isolate the affected component(s) prior to increasing the Reactor Coolant System temperature above 200°F.
- c. With the structural integrity of any ASME Code Class 3 component(s) not conforming to the above requirements, restore the structural integrity of the affected component(s) to within its limit or isolate the affected component(s) from service.

SURVEILLANCE REQUIREMENTS

4.4.10 In addition to the requirements of Specification 4.0.5, each reactor coolant pump flywheel shall be inspected per the recommendations of Regulatory Position C.4.b of Regulatory Guide 1.14, Revision 1, August 1975.

REACTOR COOLANT SYSTEM

3/4.4.11 REACTOR VESSEL HEAD VENTS

LIMITING CONDITION FOR OPERATION

3.4.11 At least one reactor vessel head vent path consisting of at least two valves in series powered from emergency busses shall be OPERABLE and closed.

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

ACTION:

With the above reactor vessel head vent path inoperable, STARTUP and/or POWER OPERATION may continue provided the inoperable vent path is maintained closed with power removed from the valve actuator of all the valves in the inoperable vent path; restore the inoperable vent path to OPERABLE status within 30 days, or, be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.11 Each reactor vessel head vent path shall be demonstrated OPERABLE at least once per 18 months by:

- a. Verifying all manual isolation valves in each vent path are locked or sealed in the open position,
- b. Cycling each valve in the vent path through at least one complete cycle of full travel from the control room during COLD SHUTDOWN or REFUELING, and
- c. Verifying flow through the reactor vessel head vent paths during venting during COLD SHUTDOWN or REFUELING.

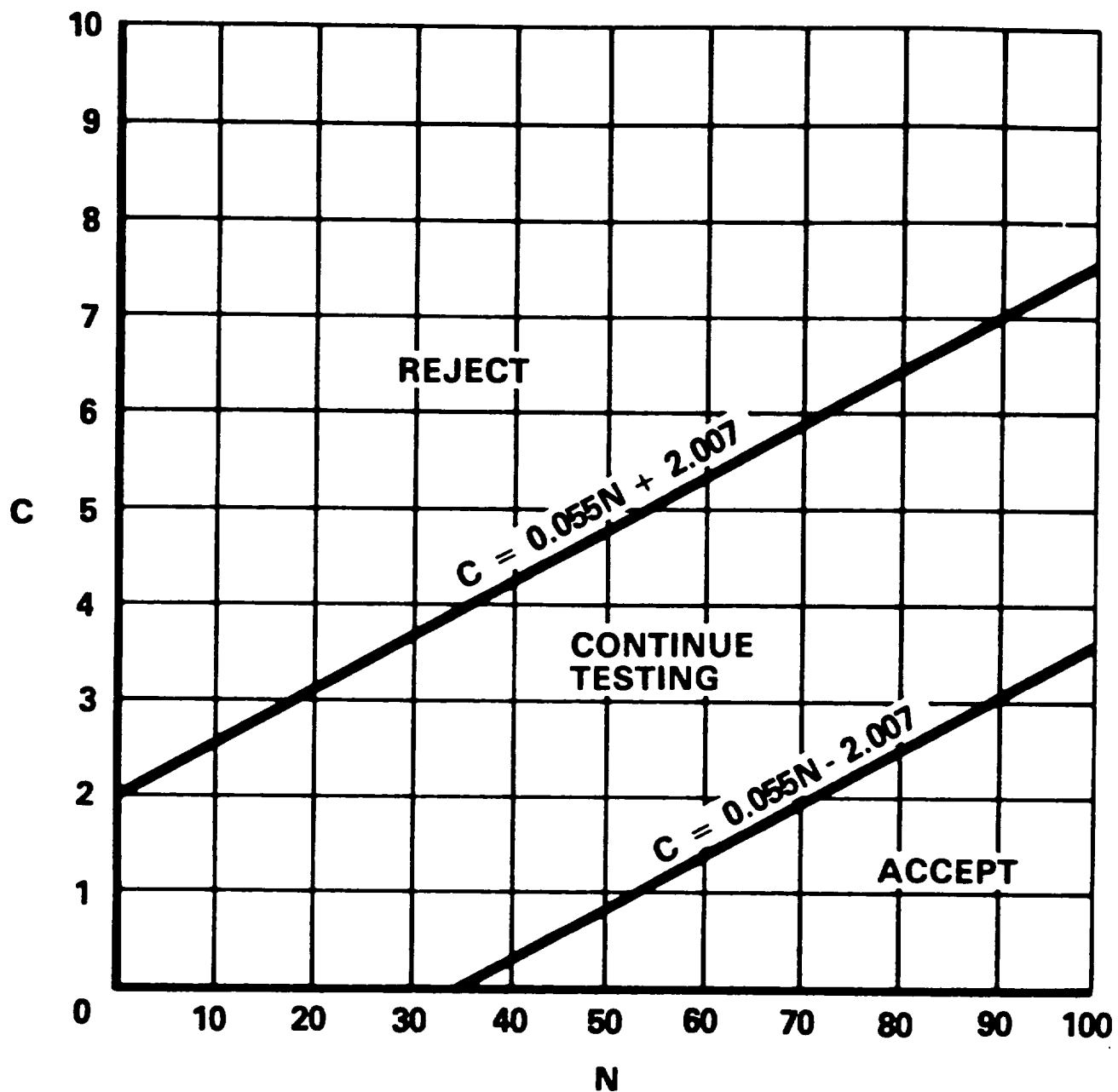


FIGURE 4.7-1

SAMPLE PLAN 2) FOR SNUBBER FUNCTIONAL TEST

PLANT SYSTEMS

3/4.7.8 SEALED SOURCE CONTAMINATION

LIMITING CONDITION FOR OPERATION

3.7.8.1 Each sealed source containing radioactive material in excess of 100 microcuries of beta and/or gamma emitting material or 10 microcuries of alpha-emitting material shall be free of greater than or equal to 0.005 microcurie of removable contamination.

APPLICABILITY: At all times.

ACTION:

- a. With a sealed source having removable contamination in excess of the above limits, immediately withdraw the sealed source from use, and either:
 - 1. Decontaminate and repair the sealed source, or
 - 2. Dispose of the sealed source in accordance with Commission Regulations.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.8.1.1 Test Requirements - Each sealed source shall be tested for leakage and/or contamination by:

- a. The licensee, or
- b. Other persons specifically authorized by the Commission or an Agreement State.

The test method shall have a detection sensitivity of at least 0.005 microcurie per test sample.

4.7.8.1.2 Test Frequencies - Each category of sealed sources (excluding startup sources and fission detectors previously subjected to core flux) shall be tested at the frequency described below.

- a. Sources in use - At least once per 6 months for all sealed sources containing radioactive materials:
 - 1) With a half-life greater than 30 days (excluding Hydrogen 3), and
 - 2) In any form other than gas.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. Stored sources not in use - Each sealed source and fission detector shall be tested prior to use or transfer to another licensee unless tested within the previous 6 months. Sealed sources and fission detectors transferred without a certificate indicating the last test date shall be tested prior to being placed into use; and
- c. Startup sources and fission detectors - Each sealed startup source and fission detector shall be tested within 31 days prior to being subjected to core flux or installed in core components or the core and following repair or maintenance of the source.

4.7.8.1.3 Reports - A report shall be prepared and submitted to the Commission on an annual basis if sealed source or fission detector leakage tests reveal the presence of greater than or equal to 0.005 microcurie of removable contamination.

PLANT SYSTEMS

3/4.7.9 FIRE SUPPRESSION SYSTEMS

FIRE SUPPRESSION WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.9.1 The Fire Suppression Water System shall be OPERABLE with;

- a. At least two high pressure pumps, each with a capacity of 2250 gpm, taking suction from the firewater tank containing a minimum usable volume of 270,000 gallons, with its discharge aligned to the fire suppression* header,
- b. Gravity feed to the fire suppression header from a raw water reservoir with a minimum usable volume of 270,000 gallons, and
- c. An OPERABLE fire suppression header flow path through distribution piping with OPERABLE sectionalizing control or isolation valves to the yard hydrant curb valves, the last valve ahead of the water flow alarm device on each sprinkler, hose standpipe or Spray System riser required to be OPERABLE per Specifications 3.7.9.2 and 3.7.9.5.

APPLICABILITY: At all times.

ACTION:

- a. With either one pump and its water supply or the raw water gravity feed water supply inoperable, restore the inoperable equipment to OPERABLE status within 7 days, or provide an alternate backup pump or supply. The provisions of Specification 3.0.3 are not applicable. |
- b. With the Fire Suppression Water System otherwise inoperable establish a backup Fire Suppression Water System within 24 hours.

*Except the suppression header check valve bypass valves shall be closed unless the gravity feed to the suppression header is inoperable, or inadequate to supply the system for fire protection purposes.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.7.9.1 The Fire Suppression Water System shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying the water supply volume,
- b. At least once per 31 days by starting each pump and operating it for at least 15 minutes on recirculation flow,
- c. At least once per 31 days by verifying that each valve* (manual, power-operated, or automatic) in the flow path is in its correct position,
- d. At least once per 6 months by performance of a system flush of the outside distribution loop to verify no flow blockage,
- e. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel,
- f. At least once per 18 months by:
 - 1) Verifying that each pump develops at least 2250 gpm at a developed head of 80 psig,
 - 2) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel, and
 - 3) Verifying that each high pressure pump starts to maintain the Fire Suppression Water System pressure greater than or equal to 67 psig.
- g. At least once per 3 years by performing a flow test of the system in accordance with Chapter 5, Section 11 of the Fire Protection Handbook, 14th Edition, published by the National Fire Protection Association.

*Except valves which are located inside the containment and are locked, sealed, or otherwise secured in position. These valves shall be verified in the correct position during each COLD SHUTDOWN except such verification need not be performed more often than once per 92 days.

PLANT SYSTEMS

SPRAY AND/OR SPRINKLER SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.9.2 The following Spray and/or Sprinkler Systems shall be OPERABLE:

- a. 500/25 kV Main Transformer Bank,
- b. 25/4 kV Unit Auxiliary Transformer No. 2,
- c. 230/12 kV Standby Startup Transformer No. 1,
- d. 12/4 kV Standby Startup Transformer No. 2,
- e. Auxiliary Feedwater Pumps Area,
- f. Centrifugal Charging Pumps Area,
- g. Component Cooling Water Pumps Area, and
- h. Containment Penetration Area.

APPLICABILITY: Whenever equipment protected by the Spray/Sprinkler System is required to be OPERABLE.

ACTION:

- a. With one or more of the above required Spray and/or Sprinkler Systems inoperable, within 1 hour, establish a continuous fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged; for other areas, establish an hourly fire watch patrol.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9.2 Each of the above required Spray and/or Sprinkler Systems 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 is in its correct position,
- b. At least once per 12 months by cycling each testable valve in the flow path through at least one cycle,
- c. At least once per 18 months:
 - 1) By performing a system functional test which includes simulated automatic actuation of the system, and:

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- a) Verifying that the automatic valves in the flow path actuate to their correct positions on a test signal, and
- b) Cycling each valve in the flow path that is not testable during plant operation through at least one cycle.
- 2) By a visual inspection of the dry pipe spray and sprinkler headers to verify their integrity, and
- 3) By a visual inspection of each nozzle's spray area to verify the spray pattern is not obstructed.
- d. At least once per 3 years by performing an air or water flow test through each open head spray/sprinkler/deluge header and verifying each open head spray/sprinkler/deluge nozzle is unobstructed.

PLANT SYSTEMS

CO₂ SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.9.3 The Low Pressure CO₂ System with the subsystems shown in Table 3.7-3 shall be OPERABLE.

APPLICABILITY: Whenever equipment protected by the Low Pressure CO₂ System is required to be OPERABLE.

ACTION:

- a. With the above required automatic Low Pressure CO₂ System inoperable, within 1 hour, establish a continuous fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged; for other areas, establish an hourly fire watch patrol. With a hose reel station inoperable, provide backup fire suppression equipment in the affected area within 1 hour.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9.3 The above required Low Pressure CO₂ System shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying CO₂ storage tank level to be $\geq 50\%$ and pressure to be ≥ 290 psig,
- b. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path is in its correct position, and
- c. At least once per 18 months by verifying:
 - 1) The system valves and associated ventilation dampers and fire door release mechanisms actuate manually and automatically, upon receipt of a simulated actuation signal, and
 - 2) Flow from each nozzle during a "Puff Test."

TABLE 3.7-3

CO₂ SYSTEM

1. Diesel Generator No. 1 flooding subsystem.
2. Diesel Generator No. 2 flooding subsystem.
3. Diesel Generator No. 3 flooding subsystem (common to both units).
4. Cable spreading room flooding subsystem.
5. CO₂ hose reel subsystem stations:

<u>LOCATION</u>	<u>UNIT 1</u>	<u>UNIT 2</u>
4 & 12 kV Switchgear Room	No. 1 or 2	No. 13 or 14
Vital 4 kV Cable Spreading Rooms	No. 3 or 4	No. 15 or 16
Vital 4 kV Switchgear Rooms	No. 5 or 6	No. 17 or 18
Vital 480 V Load Centers F, G, and H	No. 8	No. 9
Battery Rooms	No. 10	No. 12
Rod Control Programmer Room	No. 11	No. 11

PLANT SYSTEMS

HALON SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.9.4 The Protection and Safeguards Actuation System Room Halon System shall be OPERABLE.

APPLICABILITY: Whenever equipment protected by the Halon System is required to be OPERABLE.

ACTION:

- a. With the above required Halon System inoperable, within 1 hour establish a continuous fire watch with backup fire suppression equipment.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9.4 The above required Halon System shall be demonstrated OPERABLE:

- a. At least once per 6 months by verifying Halon storage tank weight to be at least 95% of full charge weight and pressure to be at least 90% of full charge pressure,
- b. At least once per 18 months by:
 - 1) Verifying the system, including associated ventilation dampers, actuates manually and automatically, upon receipt of a simulated test signal, and
 - 2) Performance of a flow test through headers and nozzles to assure no blockage.
- c. Prior to the expiration of its service life and at least once per 5 years by replacement of the explosive initiator with an explosive initiator from a certified manufacturing lot.

PLANT SYSTEMS

FIRE HOSE STATIONS

LIMITING CONDITION FOR OPERATION

3.7.9.5 The fire hose stations shown in Table 3.7-4 shall be OPERABLE.

APPLICABILITY: Whenever equipment in the areas protected by the fire hose stations is required to be OPERABLE.

ACTION:

- a. With one or more of the fire hose stations given in Table 3.7-4 inoperable, route an additional equivalent capacity fire hose to the unprotected area(s) from an OPERABLE hose station within 1 hour if the inoperable fire hose is the primary means of fire suppression; otherwise route the additional hose within 24 hours.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9.5 Each of the fire hose stations shown in Table 3.7-4 shall be demonstrated OPERABLE:

- a. At least once per 31 days, by visual inspection of the stations accessible during plant operations to assure all required equipment is at the station,
- b. At least once per 18 months, by:
 - 1) Visual inspection of the stations not accessible during plant operations to assure all required equipment is at the station,
 - 2) Removing the hose for inspection and re-racking, and
 - 3) Inspecting all gaskets and replacing any degraded gaskets in couplings.
- c. At least once per 3 years by:
 - 1) Partially opening each hose station valve to verify valve OPERABILITY and no flow blockage.
 - 2) Conducting a hose hydrostatic test at a pressure of 300 psig or at least 50 psig above the maximum fire main operating pressure, whichever is greater.

TABLE 3.7-4
FIRE HOSE STATIONS

<u>LOCATION</u>	<u>ELEVATION</u>	<u>IDENTIFICATION</u>	
		<u>UNIT 1</u>	<u>UNIT 2</u>
1. Yard			
Near Fence North of Main Bank	95	YL-5	N.A.
Near Fence North of No. 1 Startup Bank	85	YL-6	YL-8
Near Fence North of No. 2 Startup Bank for Unit 1 and South of No. 2 Startup Bank for Unit 2	85	YL-7	YL-19
Near Main Transformer	85	YL-9	YL-20
Between Main Transformer and Aux. Boiler	85	YL-10	N.A.
South of Diesel Generator Rooms	85	N.A.	YL-18
2. Auxiliary Building			
Near West End of Hall for Unit 1 and near East End of Hall for Unit 2	64	FW-A1-1	FW-A6-2
Outside RHR Pump Room	64	FW-A2-1	FW-A5-2
Near Containment Spray Pumps	73	FW-A8-1	FW-A10-2
Near No. 3 CCW Pump	73	FW-A7-1	FW-A9-2
Outside Letdown HX Room	85	FW-A14-1	FW-A16-2
Penetration Area Near Doorway to Secondary Sample Room	85	FW-A11-1	FW-A17-2
Fuel Handling Bldg. North of Door to Auxiliary Feedpumps for Unit 1 and South of Door to Auxiliary Feedpumps for Unit 2	100	FW-A21-1	FW-A30-2
Penetration Area	100	FW-A22-1	FW-A28-2
Penetration Area	100	FW-A23-1	FW-A29-2
Near Door to VCT Room	100	FW-A24-1	FW-A26-2
North of Boric Acid Transfer Pumps for Unit 1 and South of Boric Acid Transfer Pumps for Unit 2	100	FW-A25-1	FW-A27-2
Penetration Area	115	FW-A35-1	FW-A42-2
Penetration Area	115	FW-A36-1	FW-A41-2
Stairwell East of Cable Spreading Room (common to both units)	127	FW-A55-1	FW-A55-1

TABLE 3.7-4 (Continued)

FIRE HOSE STATIONS

<u>LOCATION</u>	<u>ELEVATION</u>	<u>IDENTIFICATION</u>	
		<u>UNIT 1</u>	<u>UNIT 2</u>
3. Containment			
Near Main Airlock	140	FW-C7-1	FW-C7-2
Near Equipment Hatch	140	FW-C6-1	FW-C6-2
Near Emergency Airlock	140	FW-C5-1	FW-C5-2
Near CFCU No. 1	140	FW-C8-1	FW-C8-2
Near ECCS Sump	91	FW-C3-1	FW-C3-2
135°, outer wall	91	FW-C2-1	FW-C2-2
4. Turbine Building			
Between Diesels and 12/4 kV room	85	FW-T49-1	FW-T52-2
Corridor outside Diesel Mufflers for Unit 1 and Near SW Evaporator for Unit 2	104	FW-T50-1	FW-T23-2
Near Unit 1 Passenger Elevator and near Unit 2 Freight Elevator	104	FW-T19-1	FW-T20-2
North of Switchgear Vent Fans for Unit 1 and South of Switchgear Vent Fans for Unit 2	119	FW-T51-1	FW-T54-2
5. Intake Structure			
Wall outside ASW Pump Room	(-) 2	FW-3-I2-1	FW-3-I3-2
6. Fuel Handling Building			
Outside, near east entrance to Aux. Building Filters	115	FW-A53-1	FW-A58-2
Outside near entrance to Fuel Handling Building Filters for Unit 1 and inside Fuel Handling Building for Unit 2	140	FW-A52-1	FW-A51-2

PLANT SYSTEMS

3/4.7.10 FIRE BARRIER PENETRATIONS

LIMITING CONDITION FOR OPERATION

3.7.10 All fire barrier penetrations (including cable penetration barriers, fire doors, and fire dampers) in fire area boundaries protecting safety-related areas shall be functional.

APPLICABILITY: Whenever the equipment protected by the fire barrier penetrations is required to be OPERABLE.

ACTION:

- a. With one or more of the above required fire barrier penetrations non-functional, within 1 hour, either establish a continuous fire watch on at least one side of the affected penetration, or verify the OPERABILITY of fire detectors on at least one side of the non-functional fire barrier and establish an hourly fire watch patrol.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.10 Each of the above required fire barrier penetrations shall be verified to be functional:

- a. At least once per 18 months by a visual inspection, and
- b. Prior to returning a fire barrier penetration to functional status following repairs or maintenance by the performance of a visual inspection of the affected fire barrier penetrations.

PLANT SYSTEMS

3/4.7.12 ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.12 The ultimate heat sink (UHS)* shall be OPERABLE with an inlet water temperature of less than or equal to 64°F.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

With the requirements of the above specification not satisfied, place a second vital component cooling water heat exchanger in service within 8 hours or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.12 The UHS shall be determined OPERABLE by verifying the inlet water temperature to be within its limit:

- a. At least once per 24 hours when the inlet water temperature is equal to or less than 60°F, or
- b. At least once per 12 hours when the inlet water temperature is greater than 60°F but less than 62°F, or
- c. At least once per 2 hours when the inlet water temperature is equal to or greater than 62°F but less than or equal to 64°F.

*The UHS is common to both units.

PLANT SYSTEMS

3/4.7.13 FLOOD PROTECTION

LIMITING CONDITION FOR OPERATION

3.7.13 The full length of both breakwaters (east and west)* shall be above the mean lower low water (MLLW) level.

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

ACTION:

- a. With any of the breakwaters length reduced to less than MLLW level, prepare and submit to the Commission within 90 days pursuant to Specification 6.9.2, a Special Report that includes the following information:
 1. Explanation of how the degradation occurred and if the breakwaters are continuing to degrade,
 2. A planned course of action to repair the damage and the schedule for accomplishing the repair, and
 3. Summary description of action(s) to be taken to prevent a recurrence.
- b. With 500 feet or more of the breakwater length reduced to less than MLLW level, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.13.1 The breakwaters shall be visually inspected at least once per 31 days during the months of November through April and the full length of each shall be verified above MLLW level.

4.7.13.2 The crest of the breakwaters shall be visually inspected for settlement and displacement at least once per 12 months. Photographs shall be taken during the inspection, from a sufficient vantage point, to show the approximate condition of both breakwaters.

4.7.13.3 The results of any visual inspection as well as surveys that detect damage and the associated photograph(s) shall be included in the May Monthly Operating Report in accordance with Specification 6.9.1.7.

*Both breakwaters are common to both units.

ELECTRICAL POWER SYSTEMS

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

LIMITING CONDITION FOR OPERATION

3.8.4.2 For each containment penetration provided with a containment penetration overcurrent protective device(s), each device shall be OPERABLE.

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

ACTION:

With one or more of the above required containment penetration conductor overcurrent protective device(s) inoperable:

- a. Restore the protective device(s) to OPERABLE status or deenergize the circuit(s) by tripping the associated protective device or racking out or removing the inoperable protective device within 72 hours, declare the affected system or component inoperable, and verify the associated protective device to be tripped or removed, or the inoperable protective device racked out or removed at least once per 7 days thereafter; or
- b. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.4.2 Protective devices required to be operable as containment penetration overcurrent protective devices shall be demonstrated OPERABLE:

- a. At least once per 18 months:
 - 1) By verifying that the medium voltage 12 kV circuit breakers are OPERABLE by selecting, on a rotating basis, at least 10% of the circuit breakers and performing the following:
 - a) A CHANNEL CALIBRATION of the associated protective relays,
 - b) An integrated system functional test which includes simulated automatic actuation of the system and verifying that each relay and associated circuit breaker and overcurrent control circuit function as designed, and

REFUELING OPERATIONS

3/4.9.7 CRANE TRAVEL - FUEL HANDLING BUILDING

LIMITING CONDITION FOR OPERATION

3.9.7 Loads in excess of 2500 pounds* shall be prohibited from travel over fuel assemblies in the spent fuel pool.

APPLICABILITY: With fuel assemblies in the spent fuel pool.

ACTION:

- a. With the requirements of the above specification not satisfied, place the crane load in a safe condition.
- b. The provisions of Specification 3.0.3 are not applicable. |

SURVEILLANCE REQUIREMENTS

4.9.7 Loads shall be verified to be less than 2500 pounds prior to movement over fuel assemblies in the spent fuel pool.

* The movable fuel handling building walls may travel over fuel assemblies in the spent fuel pool.

REFUELING OPERATIONS

3/4.9.9 CONTAINMENT VENTILATION ISOLATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.9 The Containment Ventilation Isolation System shall be OPERABLE.

APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within containment.

ACTION:

- a. With the Containment Ventilation Isolation System inoperable, close each of the ventilation penetrations providing direct access from the containment atmosphere to the outside atmosphere.
- b. The provisions of Specification 3.0.3 are not applicable. |

SURVEILLANCE REQUIREMENTS

4.9.9 The Containment Ventilation Isolation System shall be demonstrated OPERABLE within 100 hours prior to the start of and at least once per 7 days during CORE ALTERATIONS by verifying that containment ventilation isolation occurs on a High Radiation test signal from the plant vent noble gas activity monitoring instrumentation channels.

REFUELING OPERATIONS

3/4.9.11 WATER LEVEL - SPENT FUEL POOL

LIMITING CONDITION FOR OPERATION

3.9.11 At least 23 feet of water shall be maintained over the top of irradiated fuel assemblies seated in the storage racks.

APPLICABILITY: Whenever irradiated fuel assemblies are in the spent fuel pool.

ACTION:

- a. With the requirements of the above specification not satisfied, suspend all movement of fuel assemblies and crane operations with loads in the fuel storage areas and restore the water level to within its limit within 4 hours.
- b. The provisions of Specification 3.0.3 are not applicable. |

SURVEILLANCE REQUIREMENTS

4.9.11 The water level in the spent fuel pool shall be determined to be at least its minimum required depth at least once per 7 days when irradiated fuel assemblies are in the spent fuel pool.

REFUELING OPERATIONS

3/4.9.12 FUEL HANDLING BUILDING VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.12 Two Fuel Handling Building Ventilation Systems shall be OPERABLE.

APPLICABILITY: Whenever irradiated fuel is in the spent fuel pool.

ACTION:

- a. With one Fuel Handling Building Ventilation System inoperable, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the OPERABLE Fuel Handling Building Ventilation System is capable of being powered from an OPERABLE emergency power source and is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.
- b. With no Fuel Handling Building Ventilation System OPERABLE, suspend all operations involving movement of fuel within the spent fuel pool or crane operation with loads over the spent fuel pool until at least one Fuel Handling Building Ventilation System is restored to OPERABLE status.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.12 The above required Fuel Handling Building Ventilation Systems shall be demonstrated OPERABLE:

- a. At least once per 31 days by initiating flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes;
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:
 - 1) Visually verifying that, with the system operating at a flow rate of 35,750 cfm \pm 10% and exhausting through the HEPA filters and charcoal adsorbers, the damper valve M-29 is closed;
 - 2) Verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% and uses the test procedures guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 35,750 cfm \pm 10%;

REFUELING OPERATIONS

SURVEILLANCE REQUIREMENTS (Continued)

- 3) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 4.3%; and
 - 4) Verifying a system flow rate of 35,750 cfm \pm 10% during system operation when tested in accordance with ANSI N510-1980.
- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 4.3%;
- d. At least once per 18 months by:
- 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 4.1 inches Water Gauge while operating the system at a flow rate of 35,750 cfm \pm 10%;
 - 2) Verifying that on a high radiation test signal, the system automatically starts (unless already operating) and directs its exhaust flow through the HEPA filters and charcoal adsorber banks, and
 - 3) Verifying that the system maintains the spent fuel storage pool area at a negative pressure of greater than or equal to 1/8 inch Water Gauge relative to the outside atmosphere during system operation.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the system at a flow rate of 35,750 cfm \pm 10%; and
- f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a halogenated hydrocarbon test gas while operating the system at a flow rate of 35,750 cfm \pm 10%.

RADIOACTIVE EFFLUENTS

DOSE

LIMITING CONDITION FOR OPERATION

3.11.1.2 The dose or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released, from each unit, to UNRESTRICTED AREAS (see Figure 5.1-3) shall be limited:

- a. During any calendar quarter to less than or equal to 1.5 mrem to the whole body and to less than or equal to 5 mrem to any organ, and
- b. During any calendar year to less than or equal to 3 mrem to the whole body and to less than or equal to 10 mrem to any organ.

APPLICABILITY: At all times.

ACTION:

- a. With the calculated dose from the release of radioactive materials in liquid effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that identifies the cause(s) for exceeding the limits(s) and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.2 Cumulative dose contributions from liquid effluents for the current calendar quarter and the current calendar year shall be determined in accordance with the methodology and parameters in the ODCP at least once per 31 days.

RADIOACTIVE EFFLUENTS

LIQUID RADWASTE TREATMENT SYSTEM

LIMITING CONDITION FOR OPERATION

3.11.1.3 The Liquid Radwaste Treatment System* shall be OPERABLE and appropriate portions of the system shall be used to reduce the radioactive materials in liquid wastes prior to their discharge when the projected doses due to the liquid effluent, from each unit, to UNRESTRICTED AREAS (see Figure 5.1-3) would exceed 0.06 mrem to the whole body or 0.2 mrem to any organ in a 31-day period.

APPLICABILITY: At all times.

ACTION:

- a. With any portion of the Liquid Radwaste Treatment System not in operation and with radioactive liquid waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which includes the following information:
 1. Explanation of why liquid radwaste was being discharged without treatment, identification of any inoperable equipment or subsystems, and the reason for the inoperability,
 2. Action(s) taken to restore the inoperable equipment to OPERABLE status, and
 3. Summary description of action(s) taken to prevent a recurrence.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.3.1 Doses due to liquid releases from each unit to UNRESTRICTED AREAS shall be projected at least once per 31 days, in accordance with the methodology and parameters in the ODCP when Liquid Radwaste Treatment Systems are not being fully utilized.

4.11.1.3.2 The installed Liquid Radwaste Treatment System shall be considered OPERABLE by meeting Specifications 3.11.1.1 and 3.11.1.2.

*The Liquid Radwaste Treatment System is common to both units.

RADIOACTIVE EFFLUENTS

LIQUID HOLDUP TANKS

LIMITING CONDITION FOR OPERATION

3.11.1.4 The quantity of radioactive material contained in any temporary outdoor tanks shall be limited to less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases.

APPLICABILITY: At all times.

ACTION:

- a. With the quantity of radioactive material in any of the temporary outdoor tanks exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.9.1.6.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.4 The quantity of radioactive material contained in each of the temporary outdoor tanks shall be determined to be within the above limit by analyzing a representative sample of the tank's contents at least once per 7 days when radioactive materials are being added to the tank.

RADIOACTIVE EFFLUENTS

3/4.11.2 GASEOUS EFFLUENTS

DOSE RATE

LIMITING CONDITION FOR OPERATION

3.11.2.1 The dose rate due to radioactive materials released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY (see Figure 5.1-3) shall be limited to the following:

- a. For noble gases: Less than or equal to 500 mrem/yr to the whole body and less than or equal to 3000 mrem/yr to the skin, and
- b. For Iodine-131, for Iodine-133, for tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to 1500 mrem/yr to any organ.

APPLICABILITY: At all times.

ACTION:

With the dose rate(s) exceeding the above limits, immediately decrease the release rate to within the above limit(s).

SURVEILLANCE REQUIREMENTS

4.11.2.1.1 The dose rate due to noble gases in gaseous effluents shall be determined to be within the above limits in accordance with the methodology and procedures of the ODCP.

4.11.2.1.2 The dose rate due to Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents shall be determined to be within the above limits in accordance with the methodology and procedures of the ODCP by obtaining representative samples and performing analyses in accordance with the sampling and analysis program specified in Table 4.11-2.

TABLE 4.11-2 (Continued)

TABLE NOTATIONS (Continued)

- (4) Samples shall be changed at least once per 7 days and analyses shall be completed within 48 hours after changing or after removal from sampler. Sampling shall also be performed at least once per 24 hours for at least 7 days following each shutdown, startup or THERMAL POWER change exceeding 15% of RATED THERMAL POWER within a 1-hour period and analyses shall be completed within 48 hours of changing. When samples collected for 24 hours are analyzed, the corresponding LLD's may be increased by a factor of 10. This requirement does not apply if: (1) analysis shows that the DOSE EQUIVALENT I-131 concentration in the reactor coolant has not increased more than a factor of 3; and (2) the noble gas monitor shows that effluent activity has not increased more than a factor of 3.
- (5) Tritium grab samples shall be taken at least once per 7 days from the ventilation exhaust from the spent fuel pool area, whenever spent fuel is in the spent fuel pool.
- (6) The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period covered by each dose or dose rate calculation made in accordance with Specifications 3.11.2.1, 3.11.2.2, and 3.11.2.3.
- (7) The principal gamma emitters for which the LLD specification applies include the following radionuclides: Kr-87, Kr-88, Xe-133, Xe-133m, Xe-135, and Xe-138 in noble gas releases and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, I-131, Cs-134, Cs-137, Ce-141, and Ce-144 in Iodine and particulate releases. This list does not mean that only these nuclides are to be considered. Other gamma peaks that are identifiable, together with those of the above nuclides, shall also be analyzed and reported in the Semiannual Radioactive Effluent Release Report pursuant to Specification 6.9.1.6 in the format outlined in Regulatory Guide 1.21, Appendix B, Revision 1, June 1974.
- (8) Grab samples shall be taken and analyzed at least once per 31 days whenever there is flow through the steam generator blowdown tank. Releases of radioiodines shall be estimated based on secondary coolant concentration and partitioning factors during releases or shall be measured.

RADIOACTIVE EFFLUENTS

DOSE - NOBLE GASES

LIMITING CONDITION FOR OPERATION

3.11.2.2 The air dose due to noble gases released in gaseous effluents, from each unit, to areas at or beyond the SITE BOUNDARY (see Figure 5.1-3) shall be limited to the following:

- a. During any calendar quarter: Less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation, and
- b. During any calendar year: Less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

APPLICABILITY: At all times.

ACTION

- a. With the calculated air dose from radioactive noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that identifies the cause(s) for exceeding the limit(s), defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.2 Cumulative dose contributions for the current calendar quarter and current calendar year for noble gases shall be determined in accordance with the methodology and parameters in the ODCP at least once per 31 days.

RADIOACTIVE EFFLUENTS

DOSE - IODINE-131, IODINE-133, TRITIUM, AND RADIOACTIVE MATERIAL IN PARTICULATE FORM

LIMITING CONDITION FOR OPERATION

3.11.2.3 The dose to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released, from each unit, to areas at and beyond the SITE BOUNDARY (see Figure 5.1-3) shall be limited to the following:

- a. During any calendar quarter: Less than or equal to 7.5 mrem to any organ and,
- b. During any calendar year: Less than or equal to 15 mrem to any organ.

APPLICABILITY: At all times.

ACTION:

- a. With the calculated dose from the release of Iodine-131, Iodine-133, tritium, and radionuclides in particulate form with half-lives greater than 8 days, in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that identifies the cause(s) for exceeding the limit(s), defines the corrective actions that have been taken to reduce the releases and the proposed actions to be taken to assure that subsequent releases will be in compliance with the above limits.
- b. The provisions of Specification 3.0.3 are not applicable. |

SURVEILLANCE REQUIREMENTS

4.11.2.3 Cumulative dose contributions for the current calendar quarter and current calendar year for Iodine-131, Iodine-133, tritium, and radionuclides in particulate form with half-lives greater than 8 days shall be determined in accordance with the methodology and parameters in the ODCP at least once per 31 days.

RADIOACTIVE EFFLUENTS

GASEOUS RADWASTE TREATMENT SYSTEM

LIMITING CONDITION FOR OPERATION

3.11.2.4 The GASEOUS RADWASTE SYSTEM and the VENTILATION EXHAUST TREATMENT SYSTEM shall be OPERABLE. The appropriate portions of these systems shall be used to reduce releases of radioactivity when the projected doses in 31 days due to gaseous effluent releases, from each unit, to areas at and beyond the SITE BOUNDARY (see Figure 5.1-3), would exceed 0.2 mrad to air from gamma radiation or 0.4 mrad to air from beta radiation or 0.3 mrem to any organ of a MEMBER OF THE PUBLIC.

APPLICABILITY: At all times.

ACTION:

- a. With radioactive gaseous waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that includes the following information:
 1. Identification of the inoperable equipment or subsystems and the reason for inoperability,
 2. Action(s) taken to restore the inoperable equipment to OPERABLE status, and
 3. Summary description of action(s) taken to prevent a recurrence.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.4.1 Doses due to gaseous releases from each unit to areas at and beyond the SITE BOUNDARY shall be projected at least once per 31 days, in accordance with the methodology and parameters in the ODCP when Gaseous Radwaste Treatment Systems are not being fully utilized.

4.11.2.4.2 The installed VENTILATION EXHAUST TREATMENT SYSTEM and GASEOUS RADWASTE SYSTEM shall be considered OPERABLE by meeting Specifications 3.11.2.1 and 3.11.2.2 or 3.11.2.3.

RADIOACTIVE EFFLUENTS

EXPLOSIVE GAS MIXTURE

LIMITING CONDITION FOR OPERATION

3.11.2.5 The concentration of oxygen in the GASEOUS RADWASTE SYSTEM shall be limited to less than or equal to 2% by volume whenever the hydrogen concentration exceeds 4% by volume.

APPLICABILITY: At all times.

ACTION:

- a. With the concentration of oxygen in the GASEOUS RADWASTE SYSTEM greater than 2% by volume but less than or equal 4% by volume, reduce the oxygen concentration to the above limits within 48 hours.
- b. With the concentration of oxygen in the GASEOUS RADWASTE SYSTEM greater than 4% by volume and the hydrogen concentration greater than 4% by volume, immediately suspend all additions of waste gases to the system and reduce the concentration of oxygen to less than or equal to 4% by volume, then take ACTION a., above.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.5 The concentration of hydrogen* and oxygen in the GASEOUS RADWASTE SYSTEM shall be determined to be within the above limits by monitoring the waste gases in the GASEOUS RADWASTE SYSTEM with the hydrogen and continuous oxygen monitors required OPERABLE by Table 3.3-13 of Specification 3.3.3.10.

*If monitoring of the waste gases for hydrogen is not performed, the hydrogen concentration shall be assumed to be greater than 4% by volume.

RADIOACTIVE EFFLUENTS

GAS STORAGE TANKS

LIMITING CONDITION FOR OPERATION

3.11.2.6 The quantity of radioactivity contained in each gas decay tank shall be limited to less than or equal to 10^5 curies noble gases (considered as Xe-133 equivalent).

APPLICABILITY: At all times.

ACTION:

- a. With the quantity of radioactive material in any gas decay tank exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.9.1.6.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.6 The quantity of radioactive material contained in each gas decay tank shall be determined to be within the above limit at least once per 24 hours when radioactive materials are being added to the tank.

RADIOACTIVE EFFLUENTS

3/4.11.3 SOLID RADIOACTIVE WASTE

LIMITING CONDITION FOR OPERATION

3.11.3 Radioactive waste shall be solidified or dewatered in accordance with the PROCESS CONTROL PROGRAM to meet shipping and transportation requirements during transit, and disposal site requirements when received at the disposal site.

APPLICABILITY: At all times.

ACTION:

- a. With SOLIDIFICATION or dewatering not meeting disposal site and shipping and transportation requirements, suspend shipment of the inadequately processed wastes and correct the PROCESS CONTROL PROGRAM, the procedures and/or the Solid Waste System as necessary to prevent recurrence.
- b. With Solidification or dewatering not performed in accordance with the PROCESS CONTROL PROGRAM, test the improperly processed waste in each container to ensure that it meets burial ground and shipping requirements and take appropriate administrative action to prevent recurrence.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.3 SOLIDIFICATION of at least one representative test specimen from at least every tenth batch of each type of wet radioactive wastes (e.g., filter sludges, spent resins, evaporator bottoms, boric acid solutions and sodium sulfate solutions) shall be verified in accordance with the PROCESS CONTROL PROGRAM:

- a. If any test specimen fails to verify SOLIDIFICATION, the SOLIDIFICATION of the batch under test shall be suspended until such time as additional test specimens can be obtained, alternative SOLIDIFICATION parameters can be determined in accordance with the PROCESS CONTROL PROGRAM, and a subsequent test verifies SOLIDIFICATION. SOLIDIFICATION of the batch may then be resumed using the alternative SOLIDIFICATION parameters determined by the PROCESS CONTROL PROGRAM;
- b. If the initial test specimen from a batch of waste fails to verify SOLIDIFICATION, the PROCESS CONTROL PROGRAM shall provide for the collection and testing of representative test specimens from each consecutive batch of the same type of wet waste until at least three consecutive initial test specimens demonstrated SOLIDIFICATION. THE PROCESS CONTROL PROGRAM shall be modified as required, as provided in Specification 6.13, to assure SOLIDIFICATION of subsequent batches of waste; and
- c. With the installed equipment incapable of meeting Specification 3.11.3 or declared inoperable, restore the equipment to OPERABLE status or provide for contract capability to process wastes as necessary to satisfy all applicable transportation and disposal requirements.

RADIOACTIVE EFFLUENTS

3/4.11.4 TOTAL DOSE

LIMITING CONDITION FOR OPERATION

3.11.4 The annual (calendar year) dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources shall be limited to less than or equal to 25 mrem to the whole body or any organ, except the thyroid, which shall be limited to less than or equal to 75 mrem.

APPLICABILITY: At all times.

ACTION:

- a. With the calculated doses from the release of radioactive materials in liquid or gaseous effluents exceeding twice the limits of Specification 3.11.1.2a., 3.11.1.2b., 3.11.2.2a., 3.11.2.2b., 3.11.2.3a., or 3.11.2.3b., calculations shall be made including direct radiation contributions from the units and from outside storage tanks to determine whether the above limits of Specification 3.11.4 have been exceeded. If such is the case, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the above limits and includes the schedule for achieving conformance with the above limits. This Special Report, as defined in 10 CFR 20.405c, shall include an analysis that estimates the radiation exposure (dose) to a MEMBER OF THE PUBLIC from uranium fuel cycle sources, including all effluent pathways and direct radiation, for the calendar year that includes the release(s) covered by this report. It shall also describe levels of radiation and concentrations of radioactive material involved, and the cause of the exposure levels or concentrations. If the estimated dose(s) exceeds the above limits, and if the release condition resulting in violation of 40 CFR Part 190 has not already been corrected, the Special Report shall include a request for a variance in accordance with the provisions of 40 CFR Part 190. Submittal of the report is considered a timely request, and a variance is granted until staff action on the request is complete.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.4.1 Cumulative dose contributions from liquid and gaseous effluents shall be determined in accordance with Specifications 4.11.1.2, 4.11.2.2, and 4.11.2.3, and in accordance with the methodology and parameters in the ODCP.

4.11.4.2 Cumulative dose contributions from direct radiation from the units and from outside storage tanks shall be determined in accordance with the methodology and parameters in the ODCP. This requirement is applicable only under conditions set forth in ACTION a. of Specification 3.11.4.

3/4.12 RADIOLOGICAL ENVIRONMENTAL MONITORING

3/4.12.1 MONITORING PROGRAM

LIMITING CONDITION FOR OPERATION

3.12.1 The Radiological Environmental Monitoring Program shall be conducted as specified in Table 3.12-1.

APPLICABILITY: At all times.

ACTION:

- a. With the Radiological Environmental Monitoring Program not being conducted as specified in Table 3.12-1, prepare and submit to the Commission, in the Annual Radiological Environmental Operating Report required by Specification 6.9.1.5, a description of the reasons for not conducting the program as required and the plans for preventing a recurrence.
- b. With the level of radioactivity as the result of plant effluents in an environmental sampling medium at a specified location exceeding the reporting levels of Table 3.12-2 when averaged over any calendar quarter, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions to be taken to reduce radioactive effluents so that the potential annual dose* to a MEMBER OF THE PUBLIC is less than the calendar year limits of Specifications 3.11.1.2, 3.11.2.2, or 3.11.2.3. When more than one of the radionuclides in Table 3.12-2 are detected in the sampling medium, this report shall be submitted if:

$$\frac{\text{concentration (1)}}{\text{reporting level (1)}} + \frac{\text{concentration (2)}}{\text{reporting level (2)}} + \dots \geq 1.0$$

When radionuclides other than those in Table 3.12-2 are detected and are the result of plant effluents, this report shall be submitted if the potential annual dose* to a MEMBER OF THE PUBLIC from all radionuclides is equal to or greater than the calendar year limits of Specifications 3.11.1.2, 3.11.2.2 or 3.11.2.3. This report is not required if the measured level of radioactivity was not the result of plant effluents; however, in such an event, the condition shall be reported and described in the Annual Radiological Environmental Operating Report required by Specification 6.9.1.5.

*The methodology and parameters used to estimate the potential annual dose to a MEMBER OF THE PUBLIC shall be indicated in this report.

RADIOLOGICAL ENVIRONMENTAL MONITORING

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

- c. With milk or vegetation samples not being performed as required by Table 3.12-1, identify specific locations for obtaining replacement samples and add them within 30 days to the Radiological Environmental Monitoring Program given in the ERMP. The specific locations from which samples were unavailable may then be deleted from the monitoring program. Pursuant to Specification 6.14, submit in the next Semiannual Radioactive Effluent Release Report documentation for a change in the ERMP including a revised figure(s) and table for the ERMP reflecting the new location(s) with supporting information identifying the cause of the unavailability of samples and justifying the selection of the new location(s) for obtaining samples.
- d. The provisions of Specification 3.0.3 are not applicable. |

SURVEILLANCE REQUIREMENTS

4.12.1 The radiological environmental monitoring samples shall be collected pursuant to Table 3.12-1 from the specific locations given in the table and figures in the ERMP, and shall be analyzed pursuant to the requirements of Table 3.12-1 and the detection capabilities required by Table 4.12-1.

TABLE 4.12-1 (Continued)

TABLE NOTATIONS (Continued)

It should be recognized that the LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as an a posteriori (after the fact) limit for a particular measurement. Analyses shall be performed in such a manner that the stated LLDs will be achieved under routine conditions. Occasionally background fluctuations, unavoidable small sample sizes, the presence of interfering nuclides, or other uncontrollable circumstances may render these LLDs unachievable. In such cases, the contributing factors shall be identified and described in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.5.

RADIOLOGICAL ENVIRONMENTAL MONITORING

3/4.12.2 LAND USE CENSUS

LIMITING CONDITION FOR OPERATION

3.12.2 A Land Use Census shall be conducted and shall identify within a distance of 8 km (5 miles) the location in each of the 16 meteorological sectors of the nearest milk animal, the nearest residence, and the nearest garden* of greater than 50 m² (500 ft²) producing broad leaf vegetation.

APPLICABILITY: At all times.

ACTION:

- a. With a Land Use Census identifying a location(s) that yields a calculated dose or dose commitment greater than the values currently being calculated in Specification 4.11.2.3, pursuant to Specification 6.9.1.6, identify the new location(s) in the next Semiannual Radioactive Effluent Release Report.
- b. With a Land Use Census identifying a location(s) that yields a calculated dose or dose commitment (via the same exposure pathway) 20% greater than at a location from which samples are currently being obtained in accordance with Specification 3.12.1, add the new location(s) within 30 days to the Radiological Environmental Monitoring Program given in the ERMP. The sampling location(s), excluding the control station location, having the lowest calculated dose or dose commitment(s), via the same exposure pathway, may be deleted from this monitoring program after October 31 of the year in which this Land Use Census was conducted. Pursuant to Specification 6.14, submit in the next Semiannual Radioactive Effluent Release Report documentation for a change in the ERMP including a revised figure(s) and table(s) for the ERMP reflecting the new location(s) with information supporting the change in sampling locations.
- c. The provisions of Specification 3.0.3 are not applicable. |

SURVEILLANCE REQUIREMENTS

4.12.2 The Land Use Census shall be conducted during the growing season at least once per 12 months using that information that will provide the best results, such as by a door-to-door survey, aerial survey, or by consulting local agriculture authorities. The results of the Land Use Census shall be included in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.5.

*Broad leaf vegetation sampling of at least three different kinds of vegetation may be performed at the SITE BOUNDARY in each of two different direction sectors with the highest predicted D/Qs in lieu of the garden census. Specifications for vegetation sampling in Table 3.12-1, Item 4.c., shall be followed, including analysis of control samples.

RADIOLOGICAL ENVIRONMENTAL MONITORING

3/4.12.3 INTERLABORATORY COMPARISON PROGRAM

LIMITING CONDITION FOR OPERATION

3.12.3 Analyses shall be performed on all radioactive materials, supplied as part of an Interlaboratory Comparison Program that has been approved by the Commission, that correspond to samples required by Table 3.12-1.

APPLICABILITY: At all times.

ACTION:

- a. With analyses not being performed as required above, report the corrective actions taken to prevent a recurrence to the Commission in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.5.
- b. The provisions of Specification 3.0.3 are not applicable. |

SURVEILLANCE REQUIREMENTS

4.12.3 The Interlaboratory Comparison Program shall be described in the ERMP. A summary of the results obtained as part of the above required Interlaboratory Comparison Program shall be included in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.5.

3/4.0 APPLICABILITY

BASES

The specifications for this section provide the general requirements applicable to each of the Limiting Conditions for Operation and Surveillance Requirements within Section 3/4. In the event of a disagreement between the requirements stated in these Technical Specifications and those stated in an applicable Federal Regulation or Act, the requirements stated in the applicable Federal Regulation or Act shall take precedence and shall be met except where a specific exemption to the regulation has been granted in the Technical Specifications or Facility License.

3.0.1 This specification establishes the Applicability statement within each individual specification as the requirement for when (i.e., in which OPERATIONAL MODES or other specified conditions) conformance to the Limiting Conditions for Operation is required for safe operation of the facility. The ACTION requirements establish those remedial measures that must be taken within specified time limits when the requirements of a Limiting Condition for Operation are not met. There are two basic types of ACTION requirements. The first specifies the remedial measures that permit continued operation of the facility which is not further restricted by the time limits of the ACTION requirements. In this case, conformance to the ACTION requirements provides an acceptable level of safety for unlimited continued operation as long as the ACTION requirements continue to be met. The second type of ACTION requirement specifies a time limit in which conformance to the conditions of the Limiting Condition for Operation must be met. This time limit is the allowable outage time to restore an inoperable system or component to OPERABLE status or for restoring the parameters within specified limits. If these actions are not completed within the allowable outage time limits, a shutdown is required to place the facility in a MODE or condition in which the specification no longer applies. It is not intended that the shutdown portion of the ACTION requirements be used as an operational convenience which permits removal of a redundant system(s) or component(s) from service.

The specified time limits of the ACTION requirements are applicable from the point in time it is identified that a Limiting Condition for Operation is not met. The time limits of the ACTION requirements are also applicable when a system or component is removed from service for surveillance testing or investigation of operational problems. Individual specifications may include a specified time limit for the completion of Surveillance Requirement when equipment is removed from service. In this case, the allowable outage time limits of the ACTION requirements are applicable when this limit expires if the surveillance has not been completed. When a shutdown is required to comply with ACTION requirements, the plant may have entered a MODE in which a new specification becomes applicable. In this case, the time limits of the ACTION requirements would apply from the point in time that the new specification becomes applicable if the requirements of the Limiting Condition for Operation are not met.

3.0.2 This specification establishes that noncompliance with a specification exists when the requirements of the Limiting Conditions for Operation are not met and the associated ACTION requirements have not been implemented within the specified time interval. The purpose of this specification is to clarify that (1) implementation of the ACTION requirements within the specified time

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interval constitutes compliance with a specification and (2) completion of the remedial measures of the ACTION requirements is not required when compliance with a Limiting Condition of Operation is restored within the time interval specified in the associated ACTION requirements.

3.0.3 This specification establishes the shutdown ACTION requirements that must be implemented when a Limiting Condition for Operation is not met and the condition is not specifically addressed by the associated ACTION requirements. The purpose of this specification is to delineate the time limits for placing the unit in a safe shutdown MODE when plant operation cannot be maintained within the limits for safe operation defined by the Limiting Conditions for Operation and its ACTION requirements. It is not intended that the shutdown portion of the ACTION requirements be used as an operational convenience which permits removal of redundant system(s) or component(s) from service. One hour is allowed to prepare for an orderly shutdown before initiating a change in plant operation. This time permits the operator to coordinate the reduction in electrical generation with the load dispatcher to ensure the stability and availability of the electrical grid. The time limits specified to reach lower MODES of operation permit the shutdown to proceed in a controlled and orderly manner that is well within the specified maximum cooldown rate and within the cooldown capabilities of the facility assuming only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the primary coolant system and the potential for a plant upset that could challenge safety systems under conditions for which this specification applies.

If remedial measures permitting limited continued operation of the facility under the provisions of the ACTION requirements are completed, the shutdown may be terminated. The time limits of the ACTION requirements are applicable from the point in time there was a failure to meet a Limiting Condition for Operation. Therefore, the shutdown may be terminated if the ACTION requirements have been met or the time limits for the ACTION requirements have not expired, thus providing an allowance for the completion of the required actions.

The time limits of Specification 3.0.3 allow 37 hours for the plant to be in the COLD SHUTDOWN MODE when a shutdown is required during the POWER MODE of operation. If the plant is in a lower MODE of operation when a shutdown is required, the time limit for reaching the next lower MODE of operation applies. However, if a lower MODE of operation is reached in less time than allowed, the total allowable time to reach COLD SHUTDOWN, or other applicable MODE, is not reduced. For example, if HOT STANDBY is reached in 2 hours, the time allowed to reach HOT SHUTDOWN is the next 11 hours because the total time to reach HOT SHUTDOWN is not reduced from the allowable limit of 13 hours. Therefore, if remedial measures are completed that would permit a return to POWER operation, a penalty is not incurred by having to reach a lower MODE of operation in less than the total time allowed.

The same principle applies with regard to the allowable outage time limits of the ACTION requirements, if compliance with the ACTION requirements for one

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specification results in entry into a MODE or condition of operation for another specification in which the requirements of the Limiting Condition for Operation are not met. If the new specification becomes applicable in less time than specified, the difference may be added to the allowable outage time limits of the second specification. However, the allowable outage time limits of ACTION requirements for a higher MODE of operation may not be used to extend the allowable outage time that is applicable when a Limiting Condition for Operation is not met in a lower MODE of operation.

The shutdown requirements of Specification 3.0.3 do not apply in MODES 5 and 6 because the ACTION requirements of individual specifications define the remedial measures to be taken.

3.0.4 This specification establishes limitations on MODE changes when a Limiting Condition for Operation is not met. It precludes placing the facility in a higher MODE of operation when the requirements for a Limiting Condition for Operation are not met and continued noncompliance to these conditions would result in a shutdown to comply with the ACTION requirements if a change in MODES were permitted. The purpose of this specification is to ensure that facility operation is not initiated or that higher MODES of operation are not entered when corrective action is being taken to obtain compliance with a specification by restoring equipment to OPERABLE status or parameters to specified limits. Compliance with ACTION requirements that permit continued operation of the facility for an unlimited period of time provides an acceptable level of safety for continued operation without regard to the status of the plant before or after a MODE change. Therefore, in this case, entry into an OPERATIONAL MODE or other specified condition may be made in accordance with the provisions of the ACTION requirements. The provisions of this specification should not, however, be interpreted as endorsing the failure to exercise good practice in restoring systems or components to OPERABLE status before plant startup.

When a shutdown is required to comply with ACTION requirements, the provisions of Specification 3.0.4 do not apply because they would delay placing the facility in a lower MODE of operation.

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3.0.5 This specification delineates the applicability of each specification to Unit 1 and Unit 2 operation.

4.0.1 This specification establishes the requirement that surveillances must be performed during the OPERATIONAL MODES or other conditions for which the requirements of the Limiting Conditions for Operation apply unless otherwise stated in an individual Surveillance Requirement. The purpose of this specification is to ensure that surveillances are performed to verify the operational status of systems and components and that parameters are within specified limits to ensure safe operation of the facility when the plant is in a MODE or other specified condition for which the associated Limiting Conditions for Operation are applicable. Surveillance Requirements do not have to be performed when the facility is in an OPERATIONAL MODE for which the requirements of the associated Limiting Condition for Operation do not apply unless otherwise specified. The Surveillance Requirements associated with a Special Test Exception are only applicable when the Special Test is used as an allowable exception to the requirements of a specification.

4.0.2 This specification establishes the conditions under which the specified time interval for Surveillance Requirements may be extended. Item a. permits an allowable extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance; e.g., transient conditions or other ongoing surveillance or maintenance activities. Item b. limits the use of the provisions of item a. to ensure that it is not used repeatedly to extend the surveillance interval beyond that specified. The limits of Specification 4.0.2 are based on engineering judgement and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the Surveillance Requirements. These provisions are sufficient to ensure that the reliability ensured through surveillance activities is not significantly degraded beyond that obtained from the specified surveillance interval.

4.0.3 This specification establishes the failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by the provisions of Specification 4.0.2, as a condition that constitutes a failure to meet the OPERABILITY requirements for a Limiting Condition for Operation. Under the provisions of this specification, systems and components are assumed to be OPERABLE when Surveillance Requirements have been satisfactorily performed within the specified time interval. However, nothing in this provision is to be construed as implying that systems or components are OPERABLE when they are found or known to be inoperable although still meeting the Surveillance Requirements. This specification also clarifies that the ACTION requirements are applicable when Surveillance Requirements have not been completed within the allowed surveillance interval and that the time limits of the ACTION requirements apply from the point in time it is identified that a surveillance has not been performed and not at the time that the allowed surveillance interval was exceeded. Completion of the Surveillance Requirement within the allowable outage time limits of the ACTION requirements restores compliance with the requirements of Specification 4.0.3.

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If the allowable outage time limits of the ACTION requirements are less than 24 hours or a shutdown is required to comply with ACTION requirements, e.g., Specification 3.0.3, a 24-hour allowance is provided to permit a delay in implementing the ACTION requirements. This provides an adequate time limit to complete Surveillance Requirements that have not been performed. The purpose of this allowance is to permit the completion of a surveillance before a shutdown is required to comply with ACTION requirements or before other remedial measures would be required that may preclude completion of a surveillance. The basis for this allowance includes consideration for plant conditions, adequate planning, availability of personnel, the time required to perform the surveillance, and the safety significance of the delay in completing the required surveillance. This provision also provides a time limit for the completion of Surveillance Requirements that become applicable as a consequence of MODE changes imposed by ACTION requirements and for completing Surveillance Requirements that are applicable when an exception to the requirements of Specification 4.0.4 is allowed. If a surveillance is not completed within the 24-hour allowance, the time limits of the ACTION requirements are applicable at that time. When a surveillance is performed within the 24-hour allowance and the Surveillance Requirements are not met, the time limits of the ACTION requirements are applicable at the time that the surveillance is terminated.

Surveillance Requirements do not have to be performed on inoperable equipment because the ACTION requirements define the remedial measures that apply. However, the Surveillance Requirements have to be met to demonstrate that inoperable equipment has been restored to OPERABLE status.

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4.0.4 This specification establishes the requirement that all applicable surveillances must be met before entry into an OPERATIONAL MODE or other condition of operation specified in the Applicability statement. The purpose of this specification is to ensure that system and component OPERABILITY requirements or parameter limits are met before entry into a MODE or condition for which these systems and components ensure safe operation of the facility. This provision applies to changes in OPERATIONAL MODES or other specified conditions associated with plant shutdown as well as startup.

Under the provisions of this specification, the applicable Surveillance Requirements must be performed within the specified surveillance interval to ensure that the Limiting Conditions for Operation are met during initial plant startup or following a plant outage.

When a shutdown is required to comply with ACTION requirements, the provisions of Specification 4.0.4 do not apply because this would delay placing the facility in a lower MODE of operation.

4.0.5 This specification establishes the requirement that inservice inspection of ASME code Class 1, 2, and 3 components and inservice testing of ASME Code Class 1, 2 and 3 pumps and valves shall be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. These requirements apply except when relief has been provided in writing by the Commission.

This specification includes a clarification of the frequencies for performing the inservice inspection and testing activities required by Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda. This clarification is provided to ensure consistency in surveillance intervals throughout the Technical Specifications and to remove any ambiguities relative to the frequencies for performing the required inservice inspection and testing activities.

Under the terms of this specification, the more restrictive requirements of the Technical Specifications take precedence over the ASME Boiler and Pressure Vessel Code and applicable Addenda. The requirements of Specification 4.0.4 to perform surveillance activities before entry into an OPERATIONAL MODE or other specified condition takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows pumps and valves to be tested up to one week after return to normal operation. The Technical Specification definition of OPERABLE does not allow a grace period before a component, that is not capable of performing its specified function, is declared inoperable and takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows a valve to be incapable of performing its specified function for up to 24 hours before being declared inoperable.

4.0.6 This specification delineates the applicability of the surveillance activities to Unit 1 and Unit 2 operations.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 55 TO FACILITY OPERATING LICENSE NO. DPR-80
AND AMENDMENT NO. 54 TO FACILITY OPERATING LICENSE NO. DPR-82
PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2
DOCKET NO. 50-275 AND 50-323

1.0 INTRODUCTION

By letter dated April 18, 1988, as supplemented by letter dated December 21, 1989 (Reference LAR 88-05), Pacific Gas and Electric Company (PG&E or the licensee) requested amendments to the combined Technical Specifications (TS) appended to Facility Operating License Nos. DPR-80 and DPR-82 for the Diablo Canyon Power Plant (DCPP), Unit Nos. 1 and 2, respectively. The amendments revise TS Sections 3.0.4, 4.0.3, and 4.0.4, and the associated TS Bases sections, which define the applicability of limiting conditions for operation and surveillance requirements. The amendments also delete the exceptions to TS 3.0.4 in a number of TS.

The TS changes are in accordance with the recommendations of Generic Letter (GL) 87-09 to provide greater operational flexibility and preclude unnecessary plant shutdowns and to allow passage through or to operational modes as required to comply with Action Requirements. Specifically, the licensee proposed the following revisions to TS 3.0.4, 4.0.3 and 4.0.4:

- A. Specification 3.0.4 is revised to define when its provisions apply; i.e., when the affected action statements permit continued operation for an unlimited period of time, instead of defining when the provisions of Specification 3.0.4 do not apply.
- B. Specification 4.0.3 is revised to incorporate a 24-hour delay in implementing Action Requirements due to a missed surveillance when the Action Requirements provide a restoration time that is less than 24 hours.
- C. Specification 4.0.4 is revised to clarify that "This provision shall not prevent passage through or to OPERATIONAL CONDITIONS as required to comply with Action Requirements."

The staff evaluation of these changes is given below and is based on the licensee's letters of April 18, 1988 and December 21, 1989. The licensee's letter of December 21, 1989 certified that the action

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statement for each TS affected by the revised TS 3.0.4 provided an adequate level of protection for a change in operational mode or specified condition. Thus, the December 21, 1989 letter did not change the action noticed in, or alter the staff's proposed determination of no significant hazards consideration published in the Federal Register on May 3, 1989 at 54 FR 18948.

2.0 EVALUATION

The NRC staff has evaluated the proposed changes, taking into consideration the limitations set forth in GL 87-09 for TS 3.0.4, 4.0.3 and 4.0.4, and finds them acceptable, based on the analyses and evaluations provided by the licensee. A discussion of the specific TS changes made by these amendments and the basis for their acceptability is given below.

A. Technical Specification 3.0.4

GL 87-09 recognizes, in part, that Specification 3.0.4 unduly restricts facility operation when conformance to the Action Requirements provides an acceptable level of safety for continued operation in any mode. For an LCO that has Action Requirements permitting continued operation for an unlimited period of time, entry into an operational mode or other specified condition of operation should be permitted in accordance with those Action Requirements. The restriction on change in operational modes or other specified conditions should apply only where the Action Requirements establish a specified time interval in which the LCO must be met or a shutdown of the facility would be required or where entry into that operational mode would result in entry into an Action Statement with such time constraints. However, nothing in the staff position stated in GL 87-09 should be interpreted as endorsing or encouraging plant startup with inoperable equipment. The GL 87-09 itself states that startup with inoperable equipment should be the exception rather than the rule.

The licensee provided confirmation that the remedial measures prescribed by the ACTION STATEMENT for each change involving Specification 3.0.4 is consistent with the updated Final Safety Analysis Report and its supporting safety analyses. Further, by letter dated December 21, 1989, the licensee has provided confirmation and certification that appropriate administrative controls and procedures are in place for limiting the use of Specification 3.0.4 exceptions in conjunction with its proposed TS change submitted in response to GL 87-09. Additionally, no changes are proposed that affect plant configuration, setpoints, operating parameters, or the operator/equipment interface.

Based on review of the licensee's proposal, and confirmations related above, we conclude in granting the exceptions proposed in

response to GL 87-09 that: 1) the remedial measures prescribed by the ACTION STATEMENT for each change involving the applicability of the Specification 3.0.4 exception should provide a sufficient level of protection to permit operational mode changes and safe long-term operation consistent with the plant's Updated Safety Analysis Report; and 2) the licensee has in place adequate administrative controls and procedures which will ensure that it will be the exception rather than the rule that startup of the plant with important safety features inoperable will occur. We, therefore, find the following wording of Specification 3.0.4 proposed by the licensee to be acceptable:

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

B. Technical Specification 4.0.3

In GL 87-09 the staff stated that it is overly conservative to assume that systems or components are inoperable when a surveillance requirement has not been performed, because the vast majority of surveillances demonstrate that systems or components in fact are operable. Because the allowable outage time limits of some Action Requirements do not provide an appropriate time limit for performing a missed surveillance before shutdown requirements apply, the TS should include a time limit that would allow a delay of the required actions to permit the performance of the missed surveillance.

This time limit should be based on considerations of plant conditions, adequate planning, availability of personnel, the time required to perform the surveillance, as well as the safety significance of the delay in completion of the surveillance. After reviewing possible limits, the staff concluded that, based on these considerations, 24 hours would be an acceptable time limit for completing a missed surveillance when the allowable outage times of the Action Requirements are less than this time limit or when shutdown Action Requirements apply. The 24-hour time limit would balance the risks associated with an allowance for completing the surveillance within this period against the risks associated with the potential for a plant upset and challenge to safety systems when the alternative is a shutdown to comply with Action Requirements before the surveillance can be completed.

This limit does not waive compliance with Specification 4.0.3. Under Specification 4.0.3, the failure to perform a surveillance requirement will continue to constitute noncompliance with the operability requirements of an LCO and to bring into play the applicable Action Requirements. Based on the above, we find the following wording of Specification 4.0.3 proposed by the licensee to be acceptable:

"Failure to perform a Surveillance Requirement within the allowed surveillance interval defined by Specification 4.0.2 shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours. Exceptions to these requirements are stated in the individual specifications. Surveillance Requirements do not have to be performed on inoperable equipment".

C. Technical Specification 4.0.4

TS 4.0.4 prohibits entry into an OPERATIONAL CONDITION or other specified condition until all required surveillances have been performed. This could cause an interpretation problem when OPERATIONAL CONDITION changes are required in order to comply with ACTION statements. Specifically, two possible conflicts between TSs 4.0.3 and 4.0.4 could exist. The first conflict arises because TS 4.0.4 prohibits entry into an operational mode or other specified condition when surveillance requirements have not been performed within the specified surveillance interval. The proposed modification to resolve this conflict involves the revision to TS 4.0.3 to permit a delay of up to 24 hours in the application of the Action Requirements, as explained above, and a clarification of TS 4.0.4 to allow passage through or to operational modes as required to comply with Action Requirements. The second potential conflict between TSs 4.0.3 and 4.0.4 arises because an exception to the requirements of 4.0.4 is allowed when surveillance requirements can only be completed after entry into a mode or condition. However, after entry into this mode or condition, the requirements of TS 4.0.3 may not be met because the surveillance requirements may not have been performed within the allowable surveillance interval.

The licensee proposes to resolve these conflicts by providing the following clarifying statement to TS 4.0.4:

"This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements."

The NRC staff has provided in GL 87-09 a clarification that: (a) it is not the intent of TS 4.0.3 that the ACTION requirements preclude the performance of surveillances allowed under any exception to TS 4.0.4, and (b) that the delay of up to 24 hours in TS 4.0.3 for the applicability of ACTION requirements provides an appropriate time limit for the completion of surveillance requirements that become applicable as a consequence of any exception to TS 4.0.4.

Consequently, the NRC staff finds the proposed changes to TS 4.0.4 to be acceptable.

In summary, the staff finds that the licensee's request for technical specification changes to be reasonable, justified and acceptable, based on the analyses and evaluations provided by the licensee.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes to a requirement with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes to the surveillance requirements. At Diablo Canyon, the restricted area coincides with the site boundary. We have determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

4.0 CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and (3) the issuance of these amendments will not be inimical to the common defense and security or the health and safety of the public.

Principal Contributor: Harry Rood

Dated: June 11, 1990