TEXAS UTILITIES GENERATING COMPANY
SKYWAY TOWER • 400 NORTH OLIVE STREET, L.B. 81 • DALLAS, TEXAS 75201

Log # TXX-4360
File # 916

November 15, 1984

Director of Nuclear Reactor Regulation
Attention: Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
DOCKET NOS. 50-445 AND 50-446
REQUESTED CHANGES TO FINAL DRAFT
TECHNICAL SPECIFICATIONS

Dear Mr. Youngblood:

Attached is a list of requested changes to the Comanche Peak Unit 1 Technical Specifications (Final Draft) transmitted by your letter dated September 4, 1984. We have in accordance with your letter, discussed with your staff several editorial and typographical type changes that do not require formal transmittal. We received some of these changes by your letter dated October 19, 1984. The attached list and enclosures are those changes that require formal transmittal.

Because our review of the Final Draft Technical Specifications is not yet complete there will likely be other changes requested at a later date. When our review is complete prior to the issuance of the Unit 1 Operating License we will then submit an affirmation of corrections of the Unit 1 Technical Specifications.

Respectfully,

John W. Beck

John W. Beck
Manager, Licensing

RAW:grr
Attachments
Enclosures

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ATTACHMENT TO TXX-4360

The following is a partial list of requested changes to the Comanche Peak Final Draft Technical Specification of September 4, 1984:

1. It has been determined that the appropriate DNB parameter numbers for Table 3.2-1 and BASES 3/4.2.5 are indicated RCS Tavg of $\leq$ 593°F and indicated pressurizer pressure of $\geq$ 2220 PSIG. The analytical limits remain 595°F and 2205 psig.

2. Because the staff has approved the delay of completion of the Reactor Vessel Water Level until the first refueling outage it is requested that item 22 of Table 3.3-10 and 4.3-7 be noted accordingly.

3. Enclosed are new figures 6.2-1 and 6.2-2.

4. Enclosed is a mark up of ESF Response Times Table 3.3-5. The changes have been discussed with the staff and verified against safety analyses and systems design.

5. A note should be added to Surveillance Requirement 4.7.1.2b to permit entry into Mode 3 to test the turbine driven auxiliary feedwater pump. This is necessary because there is not sufficient steam pressure in Mode 4.

6. Enclosed is a copy of new specification 3.4.11 Reactor Coolant System Vents.

7. Enclosed is a mark up of Surveillance Requirement 4.3.3.7 to make it more appropriate for our type of chlorine detector.

8. Enclosed is a mark up of Table 3.6-1 to add valve 1SI-8905A.

9. Surveillance Requirement 4.7.7e.5) should be changed to verify that a high chlorine test signal automatically switches the system into the isolation mode.

10. Enclosed is a mark up of Surveillance Requirement 4.3.4.2d. This change is to allow inspection of the low pressure stop and control valves without dismantling. These valves have seals and discs that can be inspected without dismantling.

11. Enclosed is a mark up of table 3.3-13 and 4.3-9. Changes marked are to identify the appropriate instruments by number.

12. It is requested that Surveillance Requirement 4.7.1.2a be changed from "once per 31 days on a staggered test basis" to once per 3 months. The auxiliary feedwater pumps are no more important to safe operation and accident mitigation than any of the ECCS pumps. The ECCS pumps are tested to frequencies required by Section XII of the Code. Section XI (CIWP) of the 1980 Edition, Winter 1981 Addenda (recognized by 10 CFR 50.55a) sets pump testing frequencies at 3 months. To test these pumps more frequently only increases the probability of personnel error in reestablishing valve lineups during restoration from testing and does not provide any additional assurance that they are indeed OPERABLE.

13. It is requested that item 18.b. be deleted from Table 4.3-1. This is because P-7 is only a logic function from P-10 and P-13 which are tested separately during the monthly ANALOG CHANNEL OPERATIONAL TEST. The P-7 logic function is tested during the ACTUATION LOGIC TEST required by item 20 of this Table.

14. Enclosed is a mark up of Table 3.7-6. The changes requested are to more accurately reflect plant design.

15. Enclosed is a mark up of Surveillance Requirement 4.3.3.2. This change is requested because normalization of each detector output is performed by computer code. Also, this new wording is consistent with the basis for 3/4.3.3.2.

16. The Surveillance Requirement 4.7.11.1.2b reference to ASTM-D270-1975 should be changed to ASTM-D4057. ASTM-D270 "Sampling Petroleum and

Petroleum Products" was discontinued, May 1984, to be replaced by ASTM-D4177 and D4077, D4057 "Practices for Manual Sampling of Petroleum and Petroleum Products" is the appropriate standard for sampling diesel generator fuel oil.

17. Table 4.3-9 Note (5)b. should be four volume percent oxygen.

18. The reference to ANSI N45.4-1972 in Surveillance Requirement 4.6.1.2 is unnecessary because 10CFR50 Appendix J references this standard as the method to be used.

19. The kW values in Surveillance Requirements (4.8.1.1.2a.5 and 4.8.1.1.2f.7) should be 5165 and 5740. This change is required by NRC letter from Mr. B. J. Youngblood to Mr. M. D. Spence, dated October 1, 1984.

20. For clarity, it is requested that the following sentence be added to definitions 1.12 and 1.26: "The response time may be measured by any series of sequential, overlapping, or total steps such taht the entire response time is measured."

21. Enclosed are mark ups of specifications 4.7.11.1, 3.7.11.2, 3.7.11.3 and 4.7.11.3 these changes discussed and developed with the NRC staff are to accurately reflect the Comanche Peak fire protection system.

22. As stated in FSAR Section 9.4.1 Control Room Emergency Pressurization is at a rate of 800 cfm. Surveillance requirement should be changed from 260 cfm to 800 cfm.

23. Table 3.3-8 heading "Minimum Operable" should be changed to "Required Operable" to agree with wording of the Action statement.

24. The words "except Fuel Oil Storage Tanks" should be added to 4.8.1.1.2h(2). These tanks are buried underground and vented to atmosphere.

25. Enclosed is a mark up of table 4.11-1. The one submittal as input for the Final Draft was not clear. The one enclosed should correct this problem.

26. Enclosed is a proposed change to Surveillance Requirement 4.8.4. This change noted on the enclosed mark up is to add to Surveillance Requirement 4.8.4a.1 the 480 V. Switchgear breakers which have associated protective relays.

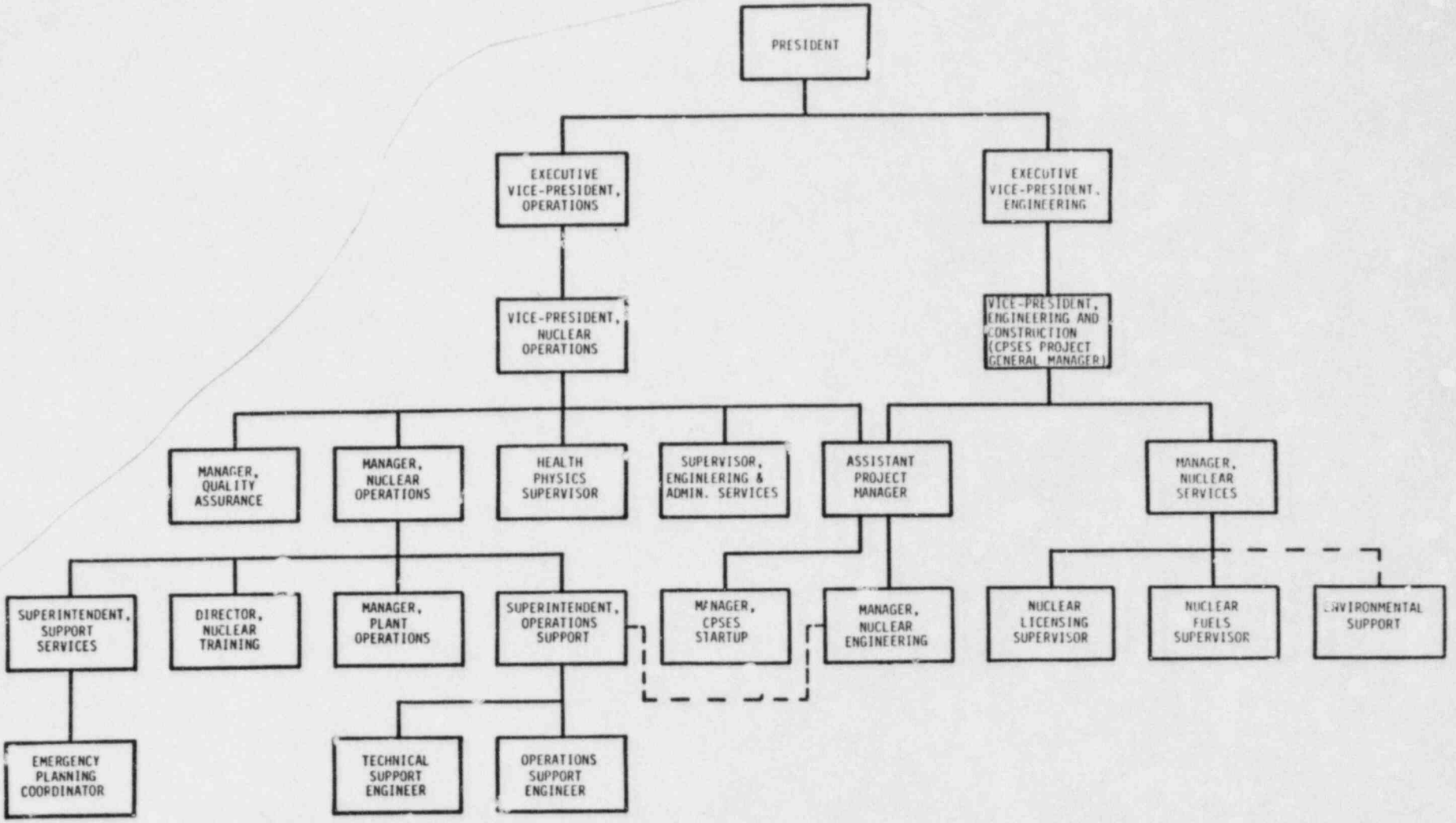

FIGURE 6.2-1

OFFSITE ORGANIZATION

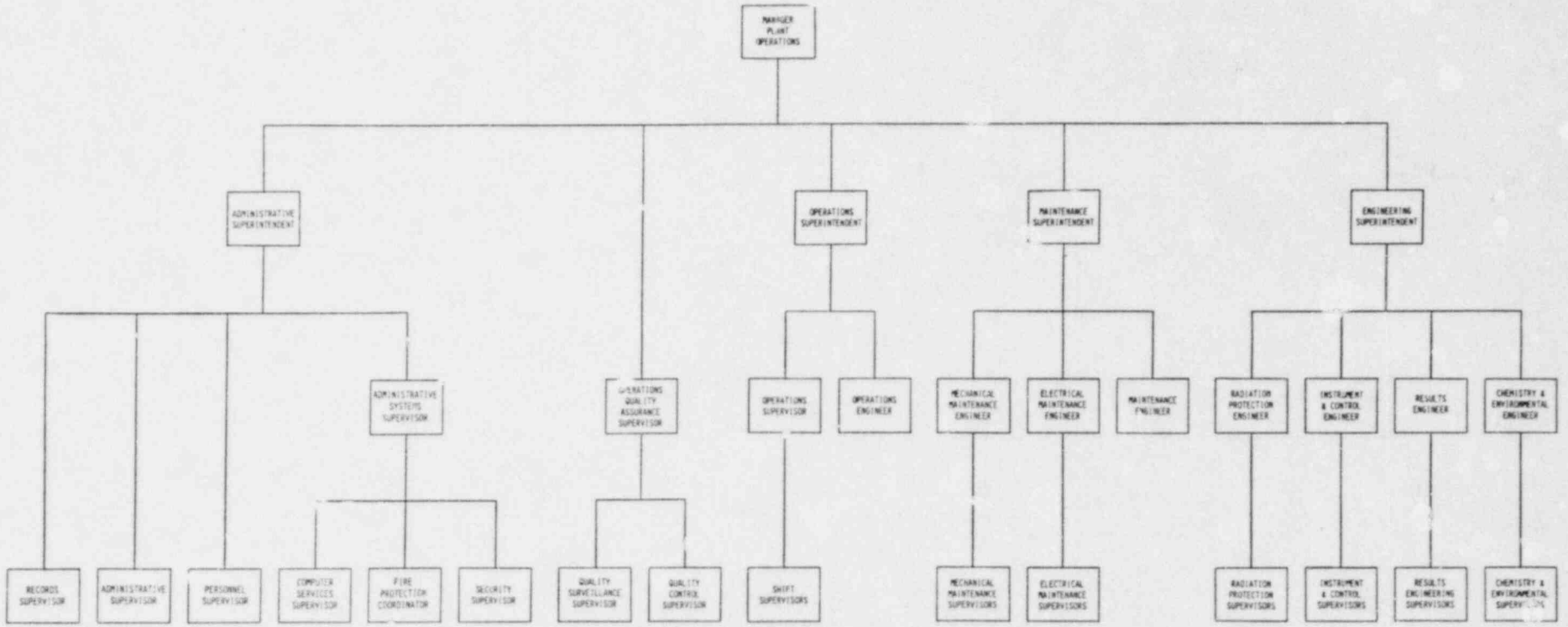

FIGURE 6.2-2

UNIT ORGANIZATION

FINAL DRAFT

TABLE 3.3-5

ENGINEERED SAFETY FEATURES RESPONSE TIMES

INITIATING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS
1. Manual Initiation	
a. Safety Injection (ECCS)	N.A.
b. Containment Spray	N.A.
c. Phase "A" Isolation	N.A.
d. Phase "B" Isolation	N.A.
e. Containment Vent Isolation	N.A.
f. Steam Line Isolation	N.A.
g. Feedwater Isolation	N.A.
h Auxiliary Feedwater	N.A.
i Station Service Water	N.A.
j. Component Cooling Water	N.A.
k. Control Room Emergency Recirculation	N.A.
l. Reactor Trip	N.A.
m. Emergency Diesel Generator Operation	N.A.
n. Safety Chilled Water	N.A.
o. Turbine Trip	N.A.
p. UPS Ventilation	N.A.
2. Containment Pressure-High - 1	
a. Safety Injection (ECCS) (5)	$\leq 27^{(1)}/12^{(4)}$
b. ~~2~~ Reactor Trip	≤ 2
c. ~~3~~ Feedwater Isolation	$\leq$ ~~7~~ 6.5
d. ~~4~~ Phase "A" Isolation	$\leq 17^{(2)}/27^{(1)}$
e. ~~5~~ Containment Vent Isolation	~~$\leq 25^{(1)}/10^{(2)}$~~ N.A.
f ~~6~~ Auxiliary Feedwater (6)	≤ 60
g. ~~7~~ Station Service Water	~~$\leq 47^{(1)}/37^{(2)}$~~ N.A.
h. ~~8~~ Component Cooling Water	N.A.
i. ~~9~~ Safety Chilled Water	N.A.
j. ~~10~~ Emergency Diesel Generator Operation	$\leq$ ~~10~~ 12
k. ~~11~~ Turbine Trip	N.A.
l. ~~12~~ Control Room Emergency Recirculation	N.A.
m. UPS Ventilation	N.A.

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TABLE 3.3-5 (Continued)

ENGINEERED SAFETY FEATURES RESPONSE TIMES

INITIATING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS
3. Pressurizer Pressure-Low	
a. Safety Injection (ECCS) (5)	≤ 27(1)/12(4)
b. ~~1)~~ Reactor Trip	≤ 2
c. ~~2)~~ Feedwater Isolation	≤ 7
d. ~~3)~~ Phase "A" Isolation	≤ 17(2)/27(1)
e. ~~4)~~ Containment Vent Isolation	~~≤ 25(1)/10(2)~~ 7 (9)
f. ~~5)~~ Auxiliary Feedwater (6)	≤ 60
g. ~~6)~~ Station Service Water	~~≤ 47(1)/37(2)~~ N.A.
h. ~~7)~~ Component Cooling Water	N.A
i ~~8)~~ Safety Chilled Water	N.A.
j. ~~9)~~ Emergency Diesel Generator Operation	≤ ~~10~~ 12
k. ~~10)~~ Turbine Trip	N.A.
l. ~~11)~~ Control Room Emergency Recirculation	N.A.
m. UPS Ventilation	N.A
4. Steam Line Pressure-Low	
a. Safety Injection (ECCS) (5)	≤ 22(3)/12(4)
b. ~~1)~~ Reactor Trip	≤ 2
c. ~~2)~~ Feedwater Isolation	≤ ~~7~~ 6.5
d. ~~3)~~ Phase "A" Isolation	≤ 17(2)/27(1)
e. ~~4)~~ Containment Vent Isolation	~~≤ 25(1)/10(2)~~ N.A.
f. ~~5)~~ Auxiliary Feedwater (6)	≤ 60
g. ~~6)~~ Station Service Water	~~≤ 47(1)/37(2)~~ N.A.
h. ~~7)~~ Component Cooling Water	N.A.
i. ~~8)~~ Safety Chilled Water	N.A.
j. ~~9)~~ Emergency Diesel Generator Operation	≤ ~~10~~ 12
k. ~~10)~~ Turbine Trip	N.A.
l. ~~11)~~ Control Room Emergency Recirculation	N.A.
m. UPS Ventilation	N.A.
n. ~~6)~~ Steam Line Isolation	≤ 7
5. Containment Pressure-High-3	
a. Containment Spray	~~≤ 45(2)/57(1)~~ 22 (7)
b. Phase "B" Isolation	~~≤ 65(1)/75(2)~~ N.A.

FINAL DRAFT

TABLE 3.3-5 (Continued)

ENGINEERED SAFETY FEATURES RESPONSE TIMES

INITIATING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS
6. Containment Pressure--High-2	
Steam Line Isolation	≤ ~~7~~ 6.5
7. Steam Line Pressure-Negative Rate-High	
Steam Line Isolation	≤ 7
8. Steam Generator Water Level-High-High	
a. Turbine Trip	≤ 2.5
b. Feedwater Isolation	≤ 11
9. Steam Generator Water Level - Low-Low	
a. Motor-Drive Auxiliary Feedwater Pumps	≤ 60
b. Turbine-Driven Auxiliary Feedwater Pump (8)	≤ 60
10. Loss-of-Offsite Power	
a. Auxiliary Feedwater	N.A.
b. Safety Chilled Water	N.A.
c. Control Room Emergency Recirculation	N.A.
11. Trip of All Main Feedwater Pumps	
All Auxiliary Feedwater Pumps	N.A.
12. RWST Level-Low-Low Coincident With Safety Injection	
Automatic Initiation of ECCS Switchover to Containment Sump	≤ 30
13. Loss of Power (6.9 kV Safeguards System Undervoltage)	
a. ~~Preferred Offsite Source Undervoltage~~ Degraded Voltage – Emergency D.G. Operation	≤ 70
b. ~~Bus Undervoltage~~ Loss of Voltage – Emergency D.G. Operation	≤ 10

THIS PAGE OPEN PENDING RECEIPT OF INFORMATION FROM THE APPLICANT

TABLE 3.3-5 (Continued)

TABLE NOTATIONS

(1) Diesel generator starting and sequence loading delays included.

(2) Diesel generator starting ~~and sequence loading~~ delay not included. Offsite power available.

(3) Diesel generator starting and sequence loading delay included. RHR pumps not included.

(4) Diesel generator starting ~~and sequence loading~~ delays not included. RHR pumps not included.

(5) Response time limit includes opening of injection path valves and attainment of discharge pressure for pumps.

(6) Response time limit includes attainment of discharge pressure for pumps.

(7) Response time limit includes attainment of discharge pressure for pumps. Diesel generator starting delay and header fill time not included.

(8) On low-low water level in 2 of 4 steam generators.

(9) Includes containment pressure relief line isolation only.

ENCLOSURE FOR ITEM 6

REACTOR COOLANT SYSTEM

REACTOR COOLANT SYSTEM VENTS

LIMITING CONDITION FOR OPERATION

3.4.11 At least one reactor coolant system vent path consisting of at least two valves in series powered from emergency buses shall be OPERABLE and closed* at each of the following locations:

a. ~~(~~Reactor Vessel Head~~)~~ (valves 1HV-3607 and 1HV-3608)

b. ~~(~~Pressurizer steam space~~)~~ (valves 1HV-3609 and 1HV-3610)

~~c. (Reactor coolant system high point)~~

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one of the above reactor coolant system vent paths 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.

~~*For the plants using power operated relief valve (PORV) as a vent path, PORV block valve is not required to be closed if the PORV is operable.~~

b. With ~~two or more~~ both of the above reactor coolant system vent paths inoperable; maintain the inoperable vent path closed with power removed from the valve actuators of all the valves in the inoperable vent paths, and restore at least ~~(two)~~ one of the vent paths to OPERABLE status within 72 hours or be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

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

1. Verifying all manual isolation valves in each vent path are locked in the open position.
2. 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.
3. Verifying flow through the reactor coolant vent system vent paths during venting during COLD SHUTDOWN or REFUELING.

3.4.11 Reactor Coolant System Vents

Reactor Coolant System Vents are provided to exhaust noncondensible gases and/or steam from the primary system that could inhibit natural circulation core cooling. The OPERABILITY of at least one reactor coolant system vent path from the reactor vessel head, ~~the reactor coolant system high point,~~ and the pressurizer steam space ensures the capability exists to perform this function.

The valve redundancy of the reactor coolant system vent paths serves to minimize the probability of inadvertent or irreversible actuation while ensuring that a single failure of a vent valve, power supply or control system does not prevent isolation of the vent path.

The function, capabilities, and testing requirements of the reactor coolant system vent systems are consistent with the requirements of Item II.B.1 of NUREG-0737, "Clarification of TMI Action Plan Requirements", November 1980.

INSTRUMENTATION

CHLORINE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.3.3.7 Two independent Chlorine Detection Systems for each fresh air intake, 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

ACTION:

a. With one Chlorine Detection System inoperable on the open fresh air intake, restore the inoperable system to OPERABLE status within 7 days or within the next 6 hours either (1) initiate and maintain operation of the normal Control Room Ventilation System from the opposite fresh air intake, or (2) initiate and maintain operation of the Control Room Emergency Air Cleanup System in the emergency recirculation mode of operation.

b. With both Chlorine Detection Systems inoperable, within 1 hour initiate and maintain operation of the Control Room Emergency Air Cleanup System in the emergency recirculation mode of operation.

c. The provisions of Specification 3.0.4 are not applicable.

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, an ANALOG CHANNEL OPERATIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.~~

a. At least once per 12 hours by performing a CHANNEL CHECK,

b. At least once per 31 days by verifying alarm and trip relay actuation when each channel is tested using installed test circuitry, and

c. At least once per 18 months by cleaning or replacing each filter and verifying that each detector responds to chlorine.

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TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NO.	FSAR TABLE REFERENCE NO.*	LINE OR SERVICE	ISOLATION TIME (Seconds)	TYPE LEVEL TESTING
5. Power-Operated Isolation Valves (Continued)				
1HV-4782	127	Containment Recirc. to Spray Pumps (Train A)	N.A.	C
1HV-4783	128	Containment Recirc. to Spray Pumps (Train B)	N.A.	C
6. Check Valves				
1-8818A	35	RHR to Cold Leg Loops #1 and #2	N.A.	Note 2
1-8818B	35	RHR to Cold Leg Loops #1 and #2	N.A.	Note 2
1-8818C	36	RHR to Cold Leg Loops #3 and #4	N.A.	Note 2
1-8818D	36	RHR to Cold Leg Loops #3 and #4	N.A.	Note 2
1-8046	41	Reactor Makeup Water to Pressurizer Relief Tank and RC Pump Stand Pipe	N.A.	C
1-8815	42	Safety Injection to Cold Leg Loops #1, #2, #3, and #4	N.A.	Note 2
1SI-8905B	43	SI to RC System Hot Leg Loops #2 and #3	N.A.	Note 2
1SI-8905C	43	SI to RC System Hot Leg Loops #1 and #4	N.A.	Note 2
1SI-8905A	44		N.N.	Note 2
1SI-8905D	44	SI to RC System Hot Leg Loops #1 and #4	N.A.	Note 2
1SI-8919A	45	SI to RC System Cold Leg Loops #1, #2, #3, & #4	N.A.	Note 2

SI to RC System Hot Leg Loops #1 and #4

SURVEILLANCE REQUIREMENTS

4.3.4.1 The provisions of Specification 4.0.4 are not applicable.

4.3.4.2 The above required Turbine Overspeed Protection System shall be demonstrated OPERABLE:

a. At least once per 14 days by cycling each of the following valves through at least one complete cycle from the running position using the manual test or Automatic Turbine Tester (ATT):

   1) Four high pressure turbine stop valves,

   2) Four high pressure turbine control valves,

   3) Four low pressure turbine stop valves, and

   4) Four low pressure turbine control valves.

b. At least once per 14 days by testing of the two mechanical overspeed devices using the manual test or ATT,

c. At least once per 31 days by direct observation of the movement of each of the above valves through one complete cycle from the running position, and

~~d. At least once per 40 months by disassembling at least one of each of the above valves and performing a visual and surface inspection of valve seats, disks and stems and verifying no unacceptable flaws or corrosion.~~

d. At least once per 40 months* by disassembling at least one of each of the above high pressure stop valves and high pressure control valves and performing a visual and surface inspection of valve seats, discs and stems and verifying no unacceptable flaws or corrosion.

e. At least once per 40 months* by performing a visual and surface inspection of the accessible portions of the valve seats and discs for at least one of each of the above low pressure stop valves and low pressure control valves and verifying no unacceptable flaws or corrosion.

* The first inspection shall be performed 40±10 months after the turbine is first placed on line with nuclear steam.

TABLE 3.3-13

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABILITY	ACTION
1.	Plant Vent Stack			
	a. Noble Gas Activity Monitor			
	1) Providing Alarm and Automatic Termination of WASTE GAS HOLDUP SYSTEM Tank Releases (XRE-5570A/~~PVG-084~~ or XRE-5570B/~~PVG-085~~)	1	*	46
	2) Providing Alarm Only (XRE-5567A/PVG-384 or XRE-5567B/PVG-385)	1	*	42
	b. Iodine Sampler (XRE-5575A/PVI-094 or XRE-5575B/PVI-096)	1	*	45
	c. Particulate Sampler (XRE-5568A/PVP-093 or XRE-5568B/PVP-095)	1	*	45
	d. ~~Flow Rate Monitor~~ Effluent System Flow Rate Measuring Device (XRE-5570A/~~PVF-684~~ or XRE-5570B/~~PVF-685~~)	1	*	41
	e. Sampler Flow Rate ~~Monitor~~ Measuring Device (XRE-5570A or XRE-5570B)	1	*	41
2.	WASTE GAS HOLDUP SYSTEM Explosive Gas Monitoring System			
	a. Hydrogen Monitors	2	**	44, 43
	b. Oxygen Monitors	2	**	44
3.	WASTE GAS HOLDUP SYSTEM			
	Noble Gas Activity Monitor-Providing Alarm and Automatic Termination of Release (XRE-5701)	1	*	40

TABLE 4.3-9

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Plant Vent Stack					
a. Noble Gas Activity Monitor					
1) Providing Alarm and Automatic Termination of WASTE GAS HOLDUP SYSTEM Tank Releases (XRE-5570A~~/PVG-384~~ and XRE-5570B~~/PVG-085~~)	D	M#	R(3)	Q(1)	*
2) Providing Alarm Only (XRE-5567A/PVG-384 and XRE-5567B/PVG-384)	D	M	R(3)	Q(2)	*
b. Iodine Sampler (XRE-5575A/PVI-094 and XRE-5575B/PVI-096)	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler (XRE-5568A/PVP-093 and XRE-5568B/PVP-095)	W	N.A.	N.A.	N.A.	*
d. ~~Flow Rate Monitor~~ Effluent System Flow Rate Measuring Device (XRE-5570A~~/PVF-684~~ and XRE-5570B~~/PVF-685~~)	D	N.A.	R	Q	*
e. Sampler Flow Rate ~~Monitor~~ Measuring Device (XRE-5570A and XRE-5570B)	D	N.A.	R	Q	*

ENCLOSURE FOR ITEM 14

FINAL DRAFT

TABLE 3.7-6

AREA TEMPERATURE MONITORING

	AREA	TEMPERATURE LIMIT (°F)
1.	Control Room	80
2.	Fuel Handling Building (Normal access areas)	104
3.	Safeguards Building (Normal access areas)	104
4.	Auxiliary Building (Normal access areas)	104
5.	Electrical & Control Building (Normal access areas)	104
6.	Diesel Generator Building	122
7.	Service Water Intake Structure	122
8.	Turbine Building ~~--Switchgear Area~~	115
9.	Containment ~~(Outside missile shield)~~	~~120~~
	OUTSIDE Missile barrier	120
	CRDM Shroud	163
	Detector Well	135
	~~Inside Missile Shield~~	~~140~~
10.	RHR Pump Rooms	122
11.	SIS Pump Rooms	122
12.	CCWS Pump Rooms	122
13.	Centrifugal Charging Pump Rooms	122
14.	UPS/Battery Room Areas	104
15.	Spent Fuel Pool Cooling & Cleanup Pump and Heat Exchanger Rooms	122
16.	AFW Pump Rooms	122
17.	CCS Pump Rooms	122

FINAL DRAFT

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% (44) 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 $F^N_{\Delta H}$, $F_Q(Z)$ and F_{xy}.

ACTION:

a. With the Movable Incore Detection System inoperable, do not use the system for the above applicable monitoring or calibration functions.

b. The provisions of Specifications 3.0.3 and 3.0.4 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~~ irradiating 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 $F^N_{\Delta H}$, $F_Q(Z)$, and F_{xy}.

and determining the acceptability of the voltage curves

PLANT SYSTEMS

FINAL DRAFT

SURVEILLANCE REQUIREMENTS

4.7.11.1.1 The Fire Suppression Water System shall be demonstrated OPERABLE:

a. At least once per 31 days by starting the electric motor-driven pump and operating it for at least 15 minutes on recirculation flow,

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,

c. At least once per 6 months by performance of a system flush, ~~except the Containment Standpipe System, which will undergo an air flow test to ensure the flow path to each hose station is unobstructed during each COLD SHUTDOWN exceeding 24 hours unless performed in the previous 6 months,~~ in accordance with NFPA 24 paragraph 4-3.6(1984)

d. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel,

e. At least once per 18 months by performing a system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:

1) ~~Verifying that each automatic valve in the flow path actuates to its correct position,~~

1 2) Verifying that each pump develops at least 3750 gpm at a system head of 208 feet,

2 3) 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 4) Verifying that each fire suppression pump starts (sequentially) to maintain the Fire Suppression Water System pressure greater than or equal to 80 psig.

f. 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.

FINAL DRAFT

SPRAY AND/OR SPRINKLER SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.11.2 The Spray and/or Sprinkler Systems listed in Table 3.7-3 shall be OPERABLE.

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 except Containment, 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; for Containment verify that the thermal detectors are operable in the containment pre-access filter units.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.11.2 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 complete cycle of full travel,

c. At least once per 18 months:

1) By performing a system functional test which includes simulated automatic actuation of the system, and:

a) Verifying that the automatic valves in the flow path actuate to their correct positions on a manual initiation test signal, and

b) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.

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LIMITING CONDITION FOR OPERATION

3.7.11.3 The fire hose stations listed 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 listed in Table 3.7-4 inoperable, provide gated wye(s) on the nearest OPERABLE hose station(s). One outlet of the wye shall be connected to the standard length of hose provided for the hose station. The second outlet of the wye shall be connected to a length of hose sufficient to provide coverage for the area left unprotected by the inoperable hose station. Where it can be demonstrated that the physical routing of the fire hose would result in a recognizable hazard to operating technicians, plant equipment, or the hose itself, the fire hose shall be stored in a roll at the outlet of the OPERABLE hose station. Signs shall be mounted above the gated wye(s) to identify the proper hose to use. (INSERT 1) Where a gated wye on the nearest OPERABLE hose station cannot be provided, an additional hose capable of providing an equivalent quantity of water and pressure will be provided. The above ACTION requirement shall be accomplished 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 Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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

a. At least once per 31 days, by a visual inspection of the fire hose 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 reracking, and

3) Inspecting all gaskets and replacing any degraded gaskets in the couplings.

4) (INSERT 2)

c. At least once per 3 years, by:

1) Partially opening each hose station valve (INSERT 3) to verify valve OPERABILITY and no flow blockage, and

2) (INSERT 4)

3) Conducting a hose hydrostatic test at a pressure of 150 psig or at least 50 psig above maximum fire main operating pressure, whichever is greater.

(Insert 1)

It is also acceptable to provide coverage to the area covered by an inoperable hose station by using a hose from a station not listed in Table 3.7-5 if that hose will provide a quantity of water at a pressure equivalent to that provided by the previous option.

(Insert 2)

verify that each automatic valve in the flow path actuates to its correct position on a manual initiation test signal

(Insert 3)

not including Containment and Control Room hose stations

(Insert 4)

Performance of an air flow test on the containment and Control Room hose stations to insure the flow path to each hose station is unobstructed, and

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TABLE 4.11-1

RADIOACTIVE LIQUID WASTE SAMPLING AND ANALYSIS PROGRAM

LIQUID RELEASE TYPE	SAMPLING FREQUENCY	MINIMUM ANALYSIS FREQUENCY	TYPE OF ACTIVITY ANALYSIS	LOWER LIMIT OF DETECTION (LLD)(1) (μCi/ml)
1. Batch Waste Release Tanks(2)	P Each Batch	P Each Batch	Principal Gamma Emitters(3)	5×10^{-7}
			I-131	1×10^{-6}
a. Waste Monitor Tanks	P One Batch/M	M	Dissolved and Entrained Gases (Gamma Emitters)	1×10^{-5}
b. Laundry Holdup and Monitor Tank	P Each Batch	M Composite(4)	H-3	1×10^{-5}
			Gross Alpha	1×10^{-7}
c. ~~Component Cooling Water Drain Tank~~	P Each Batch	Q Composite(4)	Sr-89, Sr-90	5×10^{-8}
			Fe-55	1×10^{-6}
e d. Condensate Polisher Backwash Recovery Tanks	P Each Batch	P Each Batch	Principal Gamma Emitters (3)	5×10^{-7}
			I-131	1×10^{-6}
d e. ~~Wastewater Hold-up Tanks~~				

[Wastewater Hold-up Tanks]

[Component Cooling Water Drain Tank]

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TABLE 4.11-1 (Continued)

RADIOACTIVE LIQUID WASTE SAMPLING AND ANALYSIS PROGRAM

LIQUID RELEASE TYPE	SAMPLING FREQUENCY	MINIMUM ANALYSIS FREQUENCY	TYPE OF ACTIVITY ANALYSIS	LOWER LIMIT OF DETECTION (LLD)(1) (μCi/ml)
2. Continuous Releases(5)	D Grab Sample	W Composite(4)	Principal Gamma Emitters(3)	5×10^{-7}
			I-131	1×10^{-6}
Turbine Bldg Sumps No. 1 & 2 Effluent	M Grab Sample	M	Dissolved and Entrained Gases (Gamma Emitters)	1×10^{-5}
	D Grab sample	M Composite(4)	H-3	1×10^{-5}
			Gross Alpha	1×10^{-7}
	D Grab Sample	Q Composite (4)	Sr-89, Sr-90	5×10^{-8}
			Fe-55	1×10^{-6}

There are no Continuous Releases

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3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

LIMITING CONDITION FOR OPERATION

3.8.4 All containment penetration conductor overcurrent protective devices shown in Table 3.8-1 shall be OPERABLE.

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

ACTION:

With one or more of the containment penetration conductor overcurrent protective device(s) shown in Table 3.8-1 inoperable:

a. Restore the protective device(s) to OPERABLE status or de-energize the circuit(s) by tripping the associated backup circuit breaker or racking out or removing the inoperable circuit breaker within 72 hours, declare the affected system or component inoperable, and verify the backup circuit breaker to be tripped or the inoperable circuit breaker racked out or removed at least once per 7 days thereafter; the provisions of Specification 3.0.4 are not applicable to overcurrent devices in circuits which have their backup circuit breakers tripped, their inoperable circuit breakers racked out, or removed, 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 All containment penetration conductor overcurrent protective devices shown in Table 3.8-1 shall be demonstrated OPERABLE:

a. At least once per 18 months:

1. By verifying that the medium voltage 6.9 kV and 480 V switchgear circuit breakers are OPERABLE by selecting, on a rotating basis, at least one circuit breaker of each current rating, 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 breakers and control circuits function as designed and as specified in Table 3.8-1, and

c) For each circuit breaker found inoperable during these functional tests, one additional circuit breaker of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested.

2) By selecting and functionally testing a representative sample of at least 10% of each type of 480 V molded case circuit Breakers and lower voltage circuit breakers. Circuit breakers selected for functional testing shall be selected on a rotating basis. Testing of these circuit breakers shall consist of injecting a current in excess of the breakers nominal Setpoint and measuring the response time. The measured response time will be compared to the manufacturer's data to ensure that it is less than or equal to a value specified by the manufacturer. Circuit breakers found inoperable during functional testing shall be restored to OPERABLE status prior to resuming operation. For each circuit breaker found inoperable during these functional tests, an additional representative sample of a least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested; and

3) By selecting and functionally testing a representative sample of each type of fuse rated at more than 8 amps on a rotating basis. Each representative sample of fuses shall include at least 10% of all fuses of that type. The functional test shall consist of a non-destructive resistance measurement test which demonstrates that the fuse meets its manufacturer's design criteria. Fuses found inoperable during these functional tests shall be replaced with OPERABLE fuses prior to resuming operation. For each fuse found inoperable during these functional tests, an additional representative sample of at least 10% of all fuses of that type shall be functionally tested until no more failures are found or all fuses of that type have been functionally tested.

b. At least once per 60 months by subjecting each circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations.