January 11, 1985

Docket Nos. 50-361 and 50-362

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Gentlemen:

Subject: Issuance of Amendment No. 31 to Facility Operating License NPF-10 and Amendment No. 20 to Facility Operating License NPF-15 San Onofre Nuclear Generating Station, Units 2 and 3

The Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 31 to Facility Operating License No. NPF-10 and Amendment No. 20 to Facility Operating License No. NPF-15 for the San Onofre Nuclear Generating Station, Units 2 and 3, located in San Diego County, California. The amendments modify the following Technical Specifications relating to radiation and radioactive effluent monitoring instrumentation: Technical Specification (T.S.) 3/4.3.2, Engineered Safety Features Actuation System Instrumentation, T.S. 3/4.3.3.1, "Radiation Alarm Monitoring Instrumentation," T.S. 3/4.3.3.6 "Accident Monitoring Instrumentation," and 3/4.3.3.9, "Radioactive Gaseous Effluent Monitoring Instrumentation."

These amendments were requested by your letters of March 2 and April 2, 1984, and are covered by proposed changes numbered 99, 100, 101, and 102.

A copy of the Safety Evaluation supporting the amendments is also enclosed.

Sincerely,

/S/

George W. Knighton, Chief
Licensing Branch No. 3
Division of Licensing

Enclosures:
1. Amendment No. 31 to NPF-10
2. Amendment No. 20 to NPF-15
3. Safety Evaluation

cc w/enclosures: See next page

DL:LB#3	DL:LB#3	OELD	DL:LB#3
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12/11/84	12/17/84	~~12/ /84~~ 1/2/85	12/ /84 1/11/85

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

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

DOCKET NO. 50-361

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 31
License No. NPF-10

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The applications for amendment to the license for San Onofre Nuclear Generating Station, Unit 2 (the facility) filed by the Southern California Edison Company on behalf of itself and San Diego Gas and Electric Company, The City of Riverside and The City of Anaheim, California (licensees) dated March 2 and April 2, 1984, comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the applications, as amended, 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 set forth in 10 CFR Chapter I;

   D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public;

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. NPF-10 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. 31, are hereby incorporated in the license. SCE shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This amendment is effective as of the date of issuance and shall be fully implemented by January 31, 1985.

FOR THE NUCLEAR REGULATORY COMMISSION

B. C. Buckley for

George W. Knighton, Chief
Licensing Branch No. 3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 11, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 31

FACILITY OPERATING LICENSE NO. NPF-10

DOCKET NO. 50-361

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. Also to be replaced are the following overleaf pages to the amended pages.

Amendment Pages	Overleaf Pages
3/4 3-18	3/4 3-17
3/4 3-21	3/4 3-22
3/4 3-25	-
3/4 3-26	-
3/4 3-33	-
3/4 3-34	-
3/4 3-35	-
3/4 3-36	-
3/4 3-37	-
3/4 3-38	-
3/4 3-39	3/4 3-40
3/4 3-51	-
3/4 3-52	-
3/4 3-53	-
3/4 3-53a	3/4 3-54
3/4 3-55	3/4 3-56
3/4 3-68	3/4 3-67
3/4 3-69	-
3/4 3-70	-
3/4 3-71	-
3/4 3-72	-
3/4 3-73	-
3/4 3-74	-
3/4 3-75	-
3/4 3-76	-
	-

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
9. CONTROL ROOM ISOLATION (CRIS)					
a. Manual CRIS (Trip Buttons)	2	1	1	All	13*#
b. Manual SIAS (Trip Buttons)	2 sets of 2/unit	1 set of 2	2 sets of 2/unit	1, 2, 3, 4	8
c. Airborne Radiation					
i. Particulate/Iodine	2	1	1	All	13*#
ii. Gaseous	2	1	1	All	13*#
d. Automatic Actuation Logic	1/train	1	1	All	13*#
10. TOXIC GAS ISOLATION (TGIS)					
a. Manual (Trip Buttons)	2	1	1	All	14*#, 15*#
b. Chlorine - High	2	1	1	All	14*#, 15*#
c. Ammonia - High	2	1	1	All	14*#, 15*#
d. Butane/Propane - High	2	1	1	All	14*#, 15*#
e. Carbon Dioxide - High	2	1	1	All	14*#, 15*#
f. Automatic Actuation Logic	1/train	1	1	All	14*#, 15*#

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
11. FUEL HANDLING ISOLATION (FHIS)					
a. Manual (Trip Buttons)	2	1	1	**	16*#
b. Airborne Radiation					
i. Gaseous	2	1	1	**	16*#
ii. Particulate/Iodine	2	1	1	**	16*#
c. Automatic Actuation Logic	1/train	1	1	**	16*#
12. CONTAINMENT PURGE ISOLATION (CPIS)					
a. Manual (Trip Buttons)	2	1	1	6	17b*#
b. Airborne Radiation (2RT7804-1 or 2RT7807-2)					
i. Gaseous	2	1	1	1,2,3,4 6	17a 17b*#
ii. Particulate	2	1	1	1,2,3,4 6	17a 17b*#
iii. Iodine	2	1	1	6	17b*#
c. Containment Area Radiation (Gamma) (2RT7856-1 or 2RT7857-2)	2	1	1	1,2,3,4 6	17 17b*#
d. Automatic Actuation Logic	1/train	1	1	1,2,3,4 6	17 17b*#

Table 3.3-3 (Continued)

TABLE NOTATION

ACTION 13 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency air cleanup system in the emergency (except as required by ACTIONS 14, 15) mode of operation.

ACTION 14 - With the number of channels OPERABLE one less than the total number of channels, restore the inoperable channel to OPERABLE status within 7 days or within the next 6 hours initiate and maintain operation of the control room emergency air cleanup system in the isolation mode of operation.

ACTION 15 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency air cleanup system in the isolation mode of operation.

ACTION 16 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12.

ACTION 17 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, operation may continue provided that the purge valves are maintained closed.

ACTION 17a - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.5.1. (Mode 1, 2, 3, 4 only)

ACTION 17b - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, close each of the containment purge penetrations providing direct access from the containment atmosphere to the outside atmosphere.

TABLE 3.3-4

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP VALUE	ALLOWABLE VALUES
1. SAFETY INJECTION (SIAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure - High	≤ 2.95 psig	≤ 3.14 psig
c. Pressurizer Pressure - Low	≥ 1806 psia (1)	≥ 1763 psia (1)
d. Automatic Actuation Logic	Not Applicable	Not Applicable
2. CONTAINMENT SPRAY (CSAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure -- High-High	≤ 16.14 psig	≤ 16.83 psig
c. Automatic Actuation Logic	Not Applicable	Not Applicable
3. CONTAINMENT ISOLATION (CIAS)		
a. Manual CIAS (Trip Buttons)	Not Applicable	Not Applicable
b. Manual SIAS (Trip Buttons)(5)	Not Applicable	Not Applicable
c. Containment Pressure - High	≤ 2.95 psig	≤ 3.14 psig
d. Automatic Actuation Logic	Not Applicable	Not Applicable
4. MAIN STEAM ISOLATION (MSIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Steam Generator Pressure - Low	≥ 729 psia (2)	≥ 711 psia (2)
c. Automatic Actuation Logic	Not Applicable	Not Applicable
5. RECIRCULATION (RAS)		
a. Refueling Water Storage Tank	18.5% of tap span	19.27% ≥ tap span ≥ 17.73%
b. Automatic Actuation Logic	Not Applicable	Not Applicable

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP VALUE	ALLOWABLE VALUES
11. FUEL HANDLING ISOLATION (FHIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Airborne Radiation		
i. Gaseous	$\leq 1.3 \times 10^2$ cpm**	$\leq 1.4 \times 10^2$ cpm**
ii. Particulate/Iodine	$\leq 5.7 \times 10^4$ cpm**	$\leq 6.0 \times 10^4$ cpm**
c. Automatic Actuation Logic	Not Applicable	Not Applicable
12. CONTAINMENT PURGE ISOLATION (CPIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Airborne Radiation		
i. Gaseous	(6)(7)	(6)(7)
ii. Particulate	(6)(7)	(6)(7)
iii. Iodine	(6)(7)	(6)(7)
c. Containment Area Radiation (Gamma)	$\leq$ 325 mR/hr (MODES 1-4) $\leq$ 2.4 mR/hr (MODE 6)	$\leq$ 340 mR/hr (MODES 1-4) $\leq$ 2.5 mR/hr (MODE 6)
d. Automatic Actuation Logic	Not Applicable	Not Applicable

TABLE 3.3-4 (Continued)

TABLE NOTATION

(1) Value may be decreased manually, to a minimum of greater than or equal to 300 psia, as pressurizer pressure is reduced, provided the margin between the pressurizer and this value is maintained at less than or equal to 400 psia;* the setpoint shall be increased automatically as pressurizer pressure is increased until the trip setpoint is reached. Trip may be manually bypassed below 400 psia; bypass shall be automatically removed whenever pressurizer is greater than or equal to 400 psia.

(2) Value may be decreased manually as steam generator pressure is reduced, provided the margin between the steam generator pressure and this value is maintained at less than or equal to 200 psi;* the setpoint shall be increased automatically as steam generator pressure is increased until the trip setpoint is reached.

(3) % of the distance between steam generator upper and lower level instrument nozzles.

(4) Inverse time relay set value 3165V, trip will occur within the tolerances specified in Figure 3.3-1 for the range of bus voltages.

(5) Actuated equipment only; does not result in CIAS.

(6) The trip setpoint shall be set sufficiently high to prevent spurious alarms/trips yet sufficiently low to assure an alarm/trip should an inadvertent release occur.

(7) Prior to the completion of DCP 53N, the setpoints for Containment Airborne Radiation Monitor 2RT-7804-1 shall be determined by the ODCM.

*Variable setpoints are for use only during normal, controlled plant heatups and cooldowns.

**Above normal background.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
11. FUEL HANDLING ISOLATION (FHIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Airborne Radiation				
i. Gaseous	S	R	M	*
ii. Particulate/Iodine	S	R	M	*
c. Automatic Actuation Logic	N.A.	N.A.	R(3)	*
12. CONTAINMENT PURGE ISOLATION (CPIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Airborne Radiation				
i. Gaseous	S	R	M	1,2,3,4,6
ii. Particulate	W	R	M	1,2,3,4,6
iii. Iodine	W	R	M	6
c. Containment Area Radiation (Gamma)	S	R	M	1,2,3,4,6
d. Automatic Actuation Logic	N.A.	N.A.	R (3)	1,2,3,4,6

TABLE NOTATION

(1) Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS.

(2) Deleted.

(3) Testing of Automatic Actuation Logic shall include energization/de-energization of each initiation relay and verification of the OPERABILITY of each initiation relay.

(4) A subgroup relay test shall be performed which shall include the energization/de-energization of each subgroup relay and verification of the OPERABILITY of each subgroup relay. Relays exempt from testing during plant operation shall be limited to only those relays associated with plant equipment which cannot be operated during plant operation. Relays not testable during plant operation shall be tested during each COLD SHUTDOWN exceeding 24 hours unless tested during the previous 6 months.

(5) Actuated equipment only; does not result in CIAS.

* With irradiated fuel in the storage pool.

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.1 The radiation monitoring instrumentation channels 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 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 inoperable, take the ACTION shown in Table 3.3-6.

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

SURVEILLANCE REQUIREMENTS

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

*See Special Test Exception 3.10.5.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. Area Monitors					
a. Containment - High Range (2RT-7820-1 and 2RT-7820-2)	2	1, 2, 3 4	10 R/hr 10 R/hr	$1-10^8$ R/hr	18, 18a 19
b. Containment - Purge Isolation (2RT-7856-1 or 2RT-7857-2)	1	1, 2, 3, 4 6	# #	$10^{-1}-10^5$ mR/hr	17 17b
c. Main Steam Line A Channel consist of 2RT-7874A and 2RT-7875A or 2RT-7874B and 2RT-7875B	1/line	1, 2, 3 4	1 mR/hr (low); 1 R/hr (high) 1 mR/hr (low); 1 R/hr (high)	$10^{-1}-10^4$ mR/hr;	18 19
2. Process Monitors					
a. Fuel Storage Pool Airborne (2RT-7822-1 or 2RT-7823-2)					
i. Gaseous	1	*	#	10^1 -10^7 cpm	16
ii. Particulate/Iodine	1	*	#	10^1 -10^7 cpm	16
b. Containment Airborne (2RT-7804-1 or 2RT-7807-2)					
i. Gaseous	1	1, 2, 3, 4 6	# #	10^1 - 10^7 cpm	17a 17b
ii. Particulate	1	1, 2, 3, 4 6	# #	10^1 - 10^7 cpm	17a 17b
iii. Iodine	1	6	#	10^1 - 10^7 cpm	17b
c. Control Room Airborne (2/3 RT-7824-1 or 2/3 RT-7825-2)					
i. Particulate	1	All	#	10^1 - 10^7 cpm	13
ii. Gaseous	1	All	#	10^1 - 10^7 cpm	13

TABLE 3.3-6 (Continued)

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
3. Noble Gas Monitors					
a. Plant Vent Stack Wide Range (2RT-7865-1 or 3RT-7865-1)	1	1,2,3	Per ODCM	10^{-7}-10^{5} μCi/cm^3	19
Normal Range(2RT-7865-1, 3RT-7865-1 or 2/3RT-7808)	1	4	Per ODCM	10^{-6}-10^{-1} μCi/cm^3	19
b. Condenser Evacuation System Wide Range (2RT-7870-1)	1	1,2,3(1)	Per ODCM	10^{-7}-10^{5} μCi/cm^3	19
Normal Range (2RT-7818 or 2RT-7870-1)	1	4 (1)	Per ODCM	10^{-6}-10^{2} μCi/cm^3	19

(1) With any main steam isolation valve and/or any main steam isolating valve bypass valve not fully closed.

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 13 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency air cleanup system in the emergency (except as required by ACTIONS 14, 15) mode of operation.

ACTION 16 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12.

ACTION 17 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, operation may continue provided that the purge valves are maintained closed.

ACTION 17a - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.5.1. (Mode 1, 2, 3, 4 only)

ACTION 17b - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, close each of the containment purge penetrations providing direct access from the containment atmosphere to the outside atmosphere.

ACTION 18 - With the number of channels OPERABLE one less than the Minimum Channels OPERABLE requirement, either restore the inoperable channel to OPERABLE status within 30 days, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 18a - With both channels inoperable, restore the inoperable channel(s) to OPERABLE status within 48 hours, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 19 - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:

1) Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and

2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following initiation of the pre-planned alternate outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

#In accordance with Engineered Safety Feature trip value specified by Table 3.3-4.
*With irradiated fuel in the storage pool.

ACTIONS 13, 16, 17, 17a and 17b are repeated from Table 3.3-3 for reference.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Area Monitors				
a. Containment - High Range (2RT-7820-1, 2RT-7820-2)	S	R	M	1, 2, 3, 4
b. Containment - Purge Isolation (2RT-7856-1, 2RT-7857-2)	S	R	M	1, 2, 3, 4, 6
c. Main Steam Line (2RT-7874A, 2RT-7875A, 2RT-7874B, 2RT-7875B)	S	R	M	1, 2, 3, 4
2. Process Monitors				
a. Fuel Storage Pool Airborne (2RT-7822-1, 2RT-7823-2)				
i. Gaseous	#	#	#	*
ii. Particulate/Iodine	#	#	#	*
b. Containment Airborne (2RT-7804-1, 2RT-7807-2)				
i. Gaseous	#	#	#	1, 2, 3, 4, 6
ii. Particulate	#	#	#	1, 2, 3, 4, 6
iii. Iodine	#	#	#	6
c. Control Room Airborne (2/3RT-7824-1, 2/3RT-7825-2)				
i. Particulate	#	#	#	All
ii. Gaseous	#	#	#	All

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
PROCESS MONITORS (Continued)				
3. Noble Gas Monitors				
a. Plant Vent Stack (2RT-7865-1, 3RT-7865-1, 2/3RT-7808)	D	R	Q	1, 2, 3, 4
b. Condenser Evacuation System (2RT-7870-1, 2RT-7818-1)	D	R	Q	1, 2, 3, 4(1)

NOTES:

#In accordance with Table 4.3-2 surveillance requirements for these instrument channels.

*With irradiated fuel in the storage pool.

(1) With any main steam isolation valve and/or any main steam isolating valve bypass valve not fully closed.

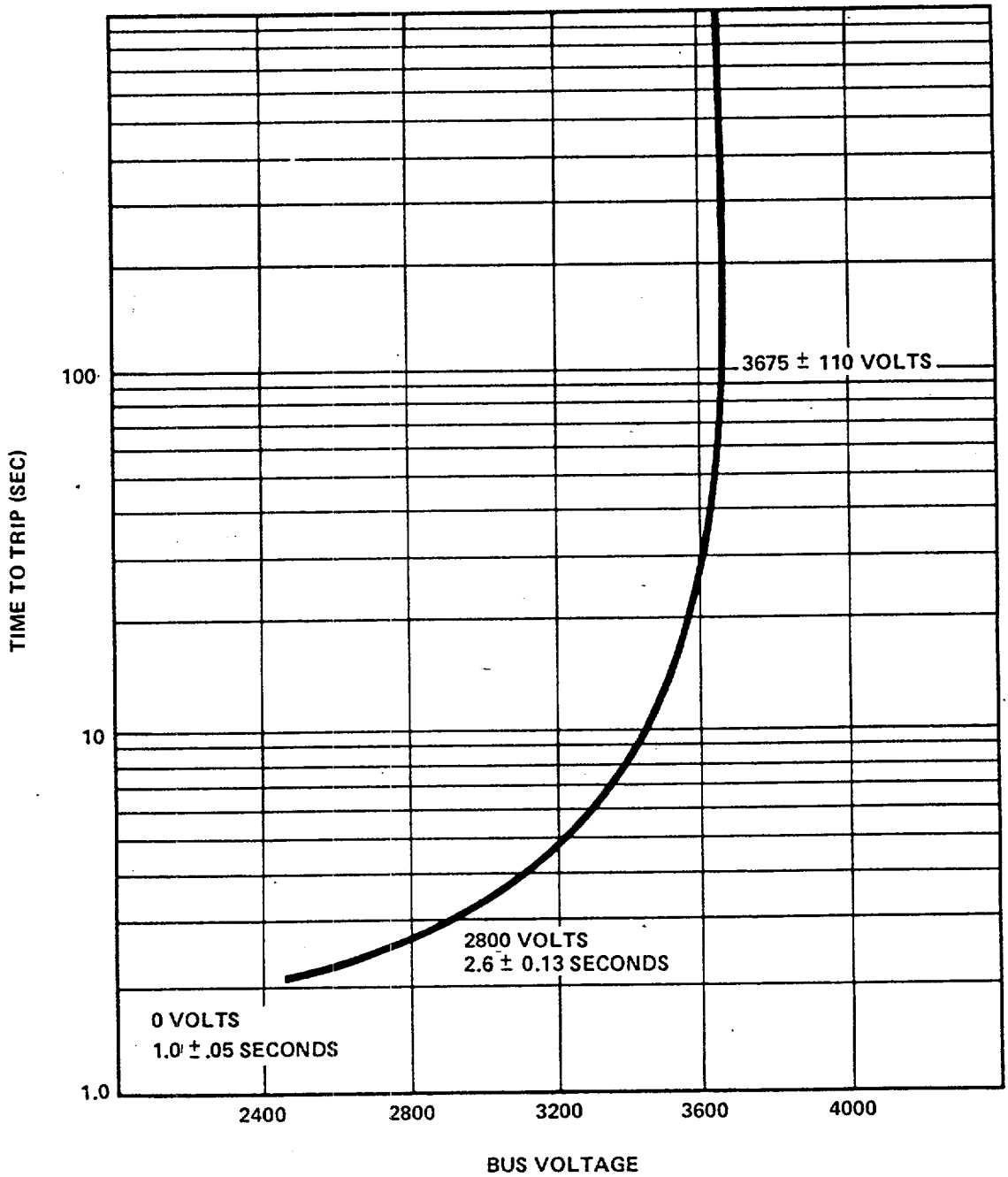

Figure 3.3-1
DEGRADED BUS VOLTAGE TRIP SETTING

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.6 The accident monitoring instrumentation channels shown in Table 3.3-10 shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.*

ACTION:

a. With one or more accident monitoring channels inoperable, take the ACTION shown in Table 3.3-10.

b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.6 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-7.

*See Special Test Exception 3.10.5.

TABLE 3.3-10

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	ACTION
1. Containment Pressure - Narrow Range	2	1	20, 21
2. Containment Pressure - Wide Range	2	1	20, 21
3. Reactor Coolant Outlet Temperature - T_{Hot} (Wide Range)	2	1	20, 21
4. Reactor Coolant Inlet Temperature - T_{Cold} (Wide Range)	2	1	20, 21
5. Pressurizer Pressure - Wide Range	2	1	20, 21
6. Pressurizer Water Level	2	1	20, 21
7. Steam Line Pressure	2/steam generator	1/steam generator	20, 21
8. Steam Generator Water Level - Wide Range	2/steam generator	1/steam generator	20, 21
9. Refueling Water Storage Tank Water Level	2	1	20, 21
10. Auxiliary Feedwater Flow Rate	1/steam generator	N.A.	20
11. Reactor Coolant System Subcooling Margin Monitor	2	1	20, 21
12. Safety Valve Position Indicator	1/valve	N.A.	20
13. Spray System Pressure	2	1	20, 21
14. LPSI Header Temperature	2	1	20, 21
15. Containment Temperature	2	1	20, 21
16. Containment Water Level - Narrow Range	2	1	20, 21

TABLE 3.3-10

ACCIDENT MONITORING INSTRUMENTATION (CONTINUED)

INSTRUMENT	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	ACTION
17. Containment Water Level - Wide Range	2	1	20, 21
18. Core Exit Thermocouples	7/core quadrant	4/core quadrant	20, 21
19. Cold Leg HPSI Flow	1/cold leg	N.A.	20
20. Hot Leg HPSI Flow	1/hot leg	N.A.	20

TABLE 3.3-10 (Continued)

ACTION STATEMENTS

ACTION 20 - With the number of OPERABLE accident monitoring channels less than the Required Number of Channels, either restore the inoperable channel to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 21 - With the number of OPERABLE accident monitoring channels less than the Minimum Channels OPERABLE requirement, either restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.

TABLE 4.3-7

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. Containment Pressure - Narrow Range	M	R
2. Containment Pressure - Wide Range	M	R
3. Reactor Coolant Outlet Temperature - T_{Hot} (Wide Range)	M	R
4. Reactor Coolant Inlet Temperature -T_{Cold} (Wide Range)	M	R
5. Pressurizer Pressure (Wide Range)	M	R
6. Pressurizer Water Level	M	R
7. Steam Line Pressure	M	R
8. Steam Generator Water Level (Wide Range)	M	R
9. Refueling Water Storage Tank Water Level	M	R
10. Auxiliary Feedwater Flow Rate	M	R
11. Reactor Coolant System Subcooling Margin Monitor	M	R
12. Safety Valve Position Indicator	M	R
13. Spray System Pressure	M	R
14. LPSI Header Temperature	M	R
15. Containment Temperature	M	R
16. Containment Water Level (Narrow Range)	M	R
17. Containment Water Level (Wide Range)	M	R
18. Core Exit Thermocouples	M	R

TABLE 4.3-7

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS (CONTINUED)

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
19. Cold Leg HPSI Flow	M	R
20. Hot Leg HPSI Flow	M	R

INSTRUMENTATION

FIRE DETECTION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.7 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:

With the number of OPERABLE fire detection instrument(s) less than the minimum number OPERABLE requirement of Table 3.3-11:

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

SURVEILLANCE REQUIREMENTS

4.3.3.7.1 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.

4.3.3.7.2 The NFPA Standard 72D supervised circuits supervision associated with the detector alarms of each of the above required fire detection instruments shall be demonstrated OPERABLE at least once per 6 months.

4.3.3.7.3 The non-supervised circuits associated with detector alarms between the instruments and the control room shall be demonstrated OPERABLE at least once per 31 days.

4.3.3.7.4 Following a seismic event (basemat acceleration greater than or equal to 0.05 g):

a. Within 2 hours each zone shown in Table 3.3-11 shall be inspected for fires, and

b. Within 72 hours an engineering evaluation shall be performed to verify the OPERABILITY of the fire detection system in each zone shown in Table 3.3-11.

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:*

1. Instrument indicates measured levels above the alarm/trip setpoint.

2. Circuit failure.

3. Instrument indicates a downscale failure.

(2) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards 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.

(3) 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.

*If the instrument controls are not in the operate mode, procedures shall require that the channel be declared inoperable.

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 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 Specification 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the ODCM.

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 less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13. Exert best efforts to return the instrument to OPERABLE status within 30 days and, additionally, if the inoperable instrument(s) remain inoperable for greater than 30 days, explain in the next Semiannual Radioactive Effluent Release Report why the inoperability was not corrected in a timely manner.

c. The provisions of Specifications 3.0.3, 3.0.4, and 6.9.1.13b are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9 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 operations at the frequencies shown in Table 4.3-9.

*See Special Test Exception 3.10.5

TABLE 3.3-13

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABILITY	ACTION
1. WASTE GAS HOLDUP SYSTEM			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release - 2/3 RT-7808, 2 RT-7865-1 or 3 RT - 7865-1	1	*	35
b. Process Flow Rate Monitoring Device	1	*	36
2. WASTE GAS HOLDUP SYSTEM EXPLOSIVE GAS MONITORING SYSTEM			
a. Hydrogen Monitor	2	**	39
b. Oxygen Monitor	2	**	39
3. CONDENSER EVACUATION SYSTEM			
a. Noble Gas Activity Monitor - 2RT - 7818 or 2RT - 7870-1	1	***	37
b. Iodine Sampler	1	***	40
c. Particulate Sampler	1	***	40
d. Associated Sample Flow Measuring Device	1	***	36
e. Process Flow Rate Monitoring Device	1(4)	***	36
4. PLANT VENT STACK			
a. Noble Gas Activity Monitor - - 2/3 RT - 7808, 2RT-7865-1 or 3RT-7865-1	1	*	37
b. Iodine Sampler	1	*	40
c. Particulate Sampler	1	*	40
d. Associated Sample Flow Measuring Device	1	*	36
e. Process Flow Rate Monitoring Device	1(5)	*	36
5. CONTAINMENT PURGE SYSTEM			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release - 2RT - 7828 or 2 RT-7865-1(1)	1(2)	*	38
b. Iodine Sampler	1(2)	*	40
c. Particulate Sampler	1(2)	*	40
d. Process Flow Rate Monitoring Device	1(3)	*	36
e. Associated Sample Flow Measuring Device	1(2)	*	36

TABLE 3.3-13 (Continued)

TABLE NOTATION

* At all times.

** During waste gas holdup system operation (treatment for primary system offgases).

*** MODES 1-4 with any main steam isolation valve and/or any main steam isolating bypass valve not fully closed.

(1) Provided 2RT-7865-1 is equipped to automatically terminate containment purge release.

(2) Prior to completion of DCP53N, Containment Airborne Radiation Monitor 2RT-7804-1 performs the functions of 2RT-7828. 2RT-7804-1 is not equipped to monitor purge flow.

(3) Prior to completion of DCP53N, 2RT-7865-1 may perform this function for minipurge only. Otherwise comply with ACTION 36 if another means of continuously monitoring purge flow is not available.

(4) 2RT-7818 is not equipped to monitor process flow. If another means of continously monitoring process flow is not available, then comply with ACTION 36.

(5) 2/3 RT-7808 is not equipped to monitor plant vent stack flow. If another means of continuously monitoring plant vent stack flow is not available, then comply with ACTION 36.

ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment provided that prior to initiating the release:

a. At least two independent samples of the tank's contents are analyzed, and

b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge valve lineup;

Otherwise, suspend releases of radioactive effluents via this pathway.

ACTION 36 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 8 hours. System design characteristics may be used to estimate flow.

ACTION 37 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided grab samples are taken at least once per 12 hours and these samples are analyzed for gross activity within 24 hours.

TABLE 3.3-13 (Continued)

TABLE NOTATION

ACTION 38 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING of radioactive effluents via this pathway

OR

Prior to completion of DCP53N, and with Plant Vent Stack Monitor 2RT-7865-1 not capable of terminating containment purge release, PURGING may continue using 2RT-7865-1 provided that:

1) Plant Vent Stack Monitor 2RT-7865-1 is aligned to the purge stack for the duration of the purge; and,

2) Plant Vent Stack Monitor 2/3 RT-7808 or 3RT-7865-1 is OPERABLE and aligned to the plant vent stack; and,

3) When PURGING is complete, 2RT-7865-1 is realigned to the plant vent stack; and,

4) In the event of a high activity alarm during the PURGE from any of 2RT-7865-1, 3RT-7865-1 or 2/3 RT-7808, an operator immediately suspends containment PURGING and realigns 2RT-7865-1 to the Plant Vent Stack.

ACTION 39 - With the number of channnels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, operation of this system may continue provided that the remaining OPERABLE channel is aligned to the waste gas surge tank. With two channels inoperable, operation of this system may continue provided that grab samples are taken at least once per 4 hours and analyzed within the following 4 hours.

ACTION 40 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via the affected pathway may continue provided samples are continuously collected with auxiliary sampling equipment as required in Table 4.11-2.

TABLE 4.3-9

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. WASTE GAS HOLDUP SYSTEM					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release - 2/3 RT-7808, 2RT-7865-1, 3RT-7865-1	P	P	R(3)	Q(1)	*
b. Process Flow Monitoring Device	P	N.A.	R	Q	*
2. WASTE GAS HOLDUP SYSTEM EXPLOSIVE GAS MONITORING SYSTEM					
a. Hydrogen Monitor (continuous)	D	N.A.	Q(4)	M	**
b. Oxygen Monitor (continuous)	D	N.A.	Q(5)	M	**
c. Hydrogen Monitor (periodic)	D	N.A.	Q(4)	M	**
d. Oxygen Monitor (periodic)	D	N.A.	Q(5)	M	**
3. CONDENSER EVACUATION SYSTEM					
a. Noble Gas Activity Monitor - 2RT - 7818, 2RT - 7870-1	D	M	R(3)	Q(2)	***
b. Iodine Sampler	W	N.A.	N.A.	N.A.	***
c. Particulate Sampler	W	N.A.	N.A.	N.A.	***
d. Associated Sample Flow Measuring Device	D	N.A.	R	Q	***
e. Process Flow Rate Monitoring Device (2RT-7870-1)	D	N.A.	R	Q	***

TABLE 4.3-9 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
4. PLANT VENT STACK					
a. Noble Gas Activity Monitor - 2/3 RT - 7808, 2RT - 7865-1, 3RT-7865-1	D	M	R(3)	Q(2)	*
b. Iodine Sampler	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler	W	N.A.	N.A.	N.A.	*
d. Associated Sample Flow Measuring Device	D	N.A.	R	Q	*
e. Process Flow Rate Monitoring Device	D	N.A.	R	Q	*
5. CONTAINMENT PURGE SYSTEM(7)					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release - 2 RT - 7828, 2 RT-7865-1	D	P(6)	R(3)	Q(1)	*
b. Iodine Sampler	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler	W	N.A.	N.A.	N.A.	*
d. Process Flow Rate Monitoring Device	D	N.A.	R	Q	*
e. Associated Sample Flow Measuring Device	D	N.A.	R	Q	*

TABLE 4.3-9 (Continued)

TABLE NOTATION

* At all times.

** During waste gas holdup system operation (treatment for primary system offgases).

*** Modes 1-4 with any main steam isolation valve and/or any main steam isolating valve bypass valve not fully closed.

(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:#

1. Instrument indicates measured levels above the alarm/trip setpoint.
2. Circuit failure.
3. Instrument indicates a downscale failure.

(2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists#:

1. Instrument indicates measured levels above the alarm setpoint.
2. Circuit failure.
3. Instrument indicates a downscale failure.

(3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards 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) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

1. One volume percent hydrogen, balance nitrogen, and
2. Four volume percent hydrogen, balance nitrogen.

(5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

1. One volume percent oxygen, balance nitrogen, and
2. Four volume percent oxygen, balance nitrogen.

(6) Prior to each release and at least once per month.

(7) Prior to completion of DCP53N, these surveillance requirements are to be performed on the instrumentation indicated by Table 3.3-13.

#If the instrument controls are not set in the operate mode, procedures shall call for declaring the channel inoperable.

INSTRUMENTATION

LOOSE-PART DETECTION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.10 The loose-part detection system shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With one or more loose part detection system channels 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 channel(s) to OPERABLE status.

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

SURVEILLANCE REQUIREMENTS

4.3.3.10 Each channel of the loose-part detection system shall be demonstrated OPERABLE by performance of a:

a. CHANNEL CHECK at least once per 24 hours,

b. CHANNEL FUNCTIONAL TEST at least once per 31 days, and

c. CHANNEL CALIBRATION at least once per 18 months.

3/4.3.4 TURBINE OVERSPEED PROTECTION

LIMITING CONDITION FOR OPERATION

3.3.4 At least one turbine overspeed protection system shall be OPERABLE.

APPLICABILITY: MODES 1, 2* and 3.*

ACTION:

a. With one stop valve or one control valve per high pressure turbine steam lead inoperable and/or with one reheat stop valve or one reheat intercept valve per low pressure turbine steam lead inoperable, restore the inoperable valve(s) to OPERABLE status within 72 hours, or close at least one valve in the affected steam lead or isolate the turbine from the steam supply within the next 6 hours.

b. With the above required turbine overspeed protection system otherwise inoperable, within 6 hours isolate the turbine from the steam supply.

SURVEILLANCE REQUIREMENTS

4.3.4 The above required turbine overspeed protection system shall be demonstrated OPERABLE:

a. At least once per 7 days by cycling each of the following valves through at least one complete cycle from the running position.

   1. Four high pressure turbine stop valves.
   2. Four high pressure turbine control valves.
   3. Six low pressure turbine reheat stop valves.
   4. Six low pressure turbine reheat intercept valves.

b. 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.

c. At least once per 18 months by performance of a CHANNEL CALIBRATION on the turbine overspeed protection systems.

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.

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*With any main steam line isolation valve and/or any main steam line isolation valve bypass valve not fully closed.

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

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

DOCKET NO. 50-362

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 20
License No. NPF-15

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The applications for amendment to the license for San Onofre Nuclear Generating Station, Unit 3 (the facility) filed by the Southern California Edison Company on behalf of itself and San Diego Gas and Electric Company, The City of Riverside and The City of Anaheim, California (licensees) dated March 2 and April 2, 1984, comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the applications, as amended, 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 set forth in 10 CFR Chapter I;

   D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public;

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. NPF-15 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. 20, are hereby incorporated in the license. SCE shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This amendment is effective as of the date of issuance and shall be fully implemented by January 31, 1985.

FOR THE NUCLEAR REGULATORY COMMISSION

B. C. Buckley for

George W. Knighton, Chief
Licensing Branch No. 3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 11, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 20

FACILITY OPERATING LICENSE NO. NPF-15

DOCKET NO. 50-362

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. Also to be replaced are the following overleaf pages to the amended pages.

Amendment Pages	Overleaf Pages
3/4 3-18	3/4 3-17
3/4 3-21	3/4 3-22
3/4 3-25	-
3/4 3-26	-
3/4 3-33	-
3/4 3-34	-
3/4 3-35	-
3/4 3-36	-
3/4 3-37	-
3/4 3-38	-
3/4 3-39	3/4 3-40
3/4 3-51	-
3/4 3-52	-
3/4 3-53	-
3/4 3-54	-
3/4 3-55	-
3/4 3-56	-
3/4 3-69	-
3/4 3-70	-
3/4 3-71	-
3/4 3-72	-
3/4 3-73	-
3/4 3-74	-
3/4 3-75	-
3/4 3-76	-
3/4 3-77	-

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
9. CONTROL ROOM ISOLATION (CRIS)					
a. Manual CRIS (Trip Buttons)	2	1	1	All	13*#
b. Manual SIAS (Trip Buttons)	2 sets of 2/unit	1 set of 2	2 sets of 2/unit	1, 2, 3, 4	8
c. Airborne Radiation					
i. Particulate/Iodine	2	1	1	All	13*#
ii. Gaseous	2	1	1	All	13*#
d. Automatic Actuation Logic	1/train	1	1	All	13*#
10. TOXIC GAS ISOLATION (TGIS)					
a. Manual (Trip Buttons)	2	1	1	All	14*#, 15*#
b. Chlorine - High	2	1	1	All	14*#, 15*#
c. Ammonia - High	2	1	1	All	14*#, 15*#
d. Butane/Propane - High	2	1	1	All	14*#, 15*#
e. Carbon Dioxide - High	2	1	1	All	14*#, 15*#
f. Automatic Actuation Logic	1/train	1	1	All	14*#, 15*#

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
11. FUEL HANDLING ISOLATION (FHIS)					
a. Manual (Trip Buttons)	2	1	1	**	16*#
b. Airborne Radiation					
i. Gaseous	2	1	1	**	16*#
ii. Particulate/Iodine	2	1	1	**	16*#
c. Automatic Actuation Logic	1/train	1	1	**	16*#
12. CONTAINMENT PURGE ISOLATION (CPIS)					
a. Manual (Trip Buttons)	2	1	1	6	17b*#
b. Airborne Radiation (3RT-7804-1 or 3RT-7807-2					
i. Gaseous	2	1	1	1,2,3,4 6	17a 17b*#
ii. Particulate	2	1	1	1,2,3,4 6	17a 17b*#
iii. Iodine	2	1	1	6	17b*#
c. Containment Area Radiation (Gamma) (3RT-7856-1 or 3RT-7857-2)	2	1	1	1,2,3,4 6	17 17b*#
d. Automatic Actuation Logic	1/train	1	1	1,2,3,4 6	17 17b*#

Table 3.3-3 (Continued)

TABLE NOTATION

ACTION 13 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency air cleanup system in the emergency (except as required by ACTIONS 14, 15) mode of operation.

ACTION 14 - With the number of channels OPERABLE one less than the total number of channels, restore the inoperable channel to OPERABLE status within 7 days or within the next 6 hours initiate and maintain operation of the control room emergency air cleanup system in the isolation mode of operation.

ACTION 15 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency air cleanup system in the isolation mode of operation.

ACTION 16 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12.

ACTION 17 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, operation may continue provided that the purge valves are maintained closed.

ACTION 17a - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.5.1. (MODE 1, 2, 3,4 only)

ACTION 17b - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, close each of the containment purge penetrations providing direct access from the containment atmosphere to the outside atmosphere.

TABLE 3.3-4

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP VALUE	ALLOWABLE VALUES
1. SAFETY INJECTION (SIAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure - High	≤ 2.95 psig	≤ 3.14 psig
c. Pressurizer Pressure - Low	≥ 1806 psia (1)	≥ 1763 psia (1)
d. Automatic Actuation Logic	Not Applicable	Not Applicable
2. CONTAINMENT SPRAY (CSAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure -- High-High	≤ 16.14 psig	≤ 16.83 psig
c. Automatic Actuation Logic	Not Applicable	Not Applicable
3. CONTAINMENT ISOLATION (CIAS)		
a. Manual CIAS (Trip Buttons)	Not Applicable	Not Applicable
b. Manual SIAS (Trip Buttons)(5)	Not Applicable	Not Applicable
c. Containment Pressure - High	≤ 2.95 psig	≤ 3.14 psig
d. Automatic Actuation Logic	Not Applicable	Not Applicable
4. MAIN STEAM ISOLATION (MSIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Steam Generator Pressure - Low	≥ 729 psia (2)	≥ 711 psia (2)
c. Automatic Actuation Logic	Not Applicable	Not Applicable
5. RECIRCULATION (RAS)		
a. Refueling Water Storage Tank	18.5% of tap span	19.27% ≥ tap span ≥ 17.73%
b. Automatic Actuation Logic	Not Applicable	Not Applicable

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP VALUE	ALLOWABLE VALUES
11. FUEL HANDLING ISOLATION (FHIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Airborne Radiation		
i. Gaseous	$\leq 1.3 \times 10^2$ cpm**	$\leq 1.4 \times 10^2$ cpm**
ii. Particulate/Iodine	$\leq 5.7 \times 10^4$ cpm**	$\leq 6.0 \times 10^4$ cpm**
c. Automatic Actuation Logic	Not Applicable	Not Applicable
12. CONTAINMENT PURGE ISOLATION (CPIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Airborne Radiation		
i. Gaseous	(6)(7)	(6)(7)
ii. Particulate	(6)(7)	(6)(7)
iii. Iodine	(6)(7)	(6)(7)
c. Containment Area Radiation (Gamma)	$\leq$ 325 mR/hr (MODES 1-4) $\leq$ 2.4 mR/hr (Mode 6)	$\leq$ 340 mR/hr (MODES 1-4) $\leq$ 2.5 mR/hr (MODE 6)
d. Automatic Actuation Logic	Not Applicable	Not Applicable

TABLE 3.3-4 (Continued)

TABLE NOTATION

(1) Value may be decreased manually, to a minimum of greater than or equal to 300 psia, as pressurizer pressure is reduced, provided the margin between the pressurizer and this value is maintained at less than or equal to 400 psia;* the setpoint shall be increased automatically as pressurizer pressure is increased until the trip setpoint is reached. Trip may be manually bypassed below 400 psia; bypass shall be automatically removed whenever pressurizer is greater than or equal to 400 psia.

(2) Value may be decreased manually as steam generator pressure is reduced, provided the margin between the steam generator pressure and this value is maintained at less than or equal to 200 psi;* the setpoint shall be increased automatically as steam generator pressure is increased until the trip setpoint is reached.

(3) % of the distance between steam generator upper and lower level instrument nozzles.

(4) Inverse time relay set value 3165V, trip will occur within the tolerances specified in Figure 3.3-1 for the range of bus voltages.

(5) Actuated equipment only; does not result in CIAS.

(6) The trip setpoint shall be set sufficiently high to prevent spurious alarms/trips yet sufficiently low to assure an alarm/trip should an inadvertent release occur.

(7) Prior to the completion of DCP 53N, the setpoints for Containment Airborne Radiation Monitor 3RT-7804-1 shall be determined by the ODCM.

*Variable setpoints are for use only during normal, controlled plant heatups and cooldowns.

**Above normal background.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
11. FUEL HANDLING ISOLATION (FHIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Airborne Radiation				
i. Gaseous	S	R	M	*
ii. Particulate/Iodine	S	R	M	*
c. Automatic Actuation Logic	N.A.	N.A.	R(3)	*
12. CONTAINMENT PURGE ISOLATION (CPIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Airborne Radiation				
i. Gaseous	S	R	M	1,2,3,4,6
ii. Particulate	W	R	M	1,2,3,4,6
iii. Iodine	W	R	M	6
c. Containment Area Radiation (Gamma)	S	R	M	1,3,3,4,6
d. Automatic Actuation Logic	N.A.	N.A.	R (3)	1,2,3,4,6

TABLE NOTATION

(1) Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS.

(2) Deleted.

(3) Testing of Automatic Actuation Logic shall include energization/de-energization of each initiation relay and verification of the OPERABILITY of each initiation relay.

(4) A subgroup relay test shall be performed which shall include the energization/de-energization of each subgroup relay and verification of the OPERABILITY of each subgroup relay. Relays exempt from testing during plant operation shall be limited to only those relays associated with plant equipment which cannot be operated during plant operation. Relays not testable during plant operation shall be tested during each COLD SHUTDOWN exceeding 24 hours unless tested during the previous 6 months.

(5) Actuated equipment only; does not result in CIAS.

* With irradiated fuel in the storage pool.

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.1 The radiation monitoring instrumentation channels 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 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 inoperable, take the ACTION shown in Table 3.3-6.

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

SURVEILLANCE REQUIREMENTS

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

---

*Continuous monitoring and sampling of the containment purge exhaust directly from the purge stack shall be provided for the low and high volume (8-inch and 42-inch) containment purge prior to startup following the first refueling outage. Containment airborne monitor 3RT-7804-1 or 3RT-7807-2 and associated sampling media shall perform these functions prior to initial criticality. From initial criticality to the startup following the first refueling outage containment airborne monitor 3RT-7804-1 and associated sampling media shall perform the above required functions.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. Area Monitors					
a. Containment - High Range (3RT-7820-1 and 3RT-7820-2)	2	1, 2, 3	10 R/hr	$1\text{-}10^8$ R/hr	18, 18a
		4	10 R/hr		19
b. Containment - Purge Isolation (3RT-7856-1 or 3RT-7857-2)	1	1, 2, 3, 4	#	$10^{-1}\text{-}10^5$ mR/hr	17
		6	#		17b
c. Main Steam Line A channel consists of 3RT-7874A and 3RT-7875A or 3RT-7874B and 3RT-7875B	1/line	1, 2, 3	1 mR/hr (low); 1 R/hr (high)	$10^{-1}\text{-}10^4$ mR/hr;	18
		4	1 mR/hr (low); 1 R/hr (high)		19
2. Process Monitors					
a. Fuel Storage Pool Airborne (3RT-7822-1 or 3RT-7823-2)					
i. Gaseous	1	*	#	$10^1\text{-}10^7$ cpm	16
ii. Particulate/Iodine	1	*	#	$10^1\text{-}10^7$ cpm	16
b. Containment Airborne (3RT-7804-1 or 3RT-7807-2)					
i. Gaseous	1	1, 2, 3, 4	#	$10^1\text{-}10^7$ cpm	17a
		6	#		17b
ii. Particulate	1	1, 2, 3, 4	#	$10^1\text{-}10^7$ cpm	17a
		6	#		17b
iii. Iodine	1	6	#	$10^1\text{-}10^7$ cpm	17b
c. Control Room Airborne (2/3 RT-7824-1 or 2/3 RT-7825-2)					
i. Particulate/Iodine	1	All	#	$10^1\text{-}10^7$ cpm	13
ii. Gaseous	1	All	#	$10^1\text{-}10^7$ cpm	13

TABLE 3.3-6 (Continued)

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
3. Noble Gas Monitors					
a. Plant Vent Stack					
Wide Range (2RT-7865-1 or 3RT-7865-1)	1	1, 2, 3	Per ODCM	10^{-7} - 10^{5} μCi/cm^3	19
Normal Range (2/3RT-7808 or 2RT-7865-1 or 3RT-7865-1)	1	4	Per ODCM	10^{-6} - 10^{-1} μCi/cm^3	19
b. Condenser Evacuation System					
Wide Range (3RT-7870-1)	1	1, 2, 3(1)	Per ODCM	10^{-7} - 10^{5} μCi/cm^3	19
Normal Range (3RT-7818 or 3RT-7870-1)	1	4 (1)	Per ODCM	10^{-6} - 10^{2} μCi/cm^3	19

(1) With any main steam line isolation valve and/or any main steam isolating valve bypass valve not fully closed.

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 13 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency air cleanup system in the emergency (except as required by ACTIONS 14, 15) mode of operation.

ACTION 16 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12.

ACTION 17 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, operation may continue provided that the purge valves are maintained closed.

ACTION 17a - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.5.1 (Mode 1, 2, 3, 4 only)

ACTION 17b - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, close each of the containment purge penetrations providing direct access from the containment atmosphere to the outside atmosphere.

ACTION 18 - With the number of channels OPERABLE one less than Minimum Channels OPERABLE requirement, either restore the inoperable channel to OPERABLE status within 30 days, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 18a - With both channels inoperable, restore the inoperable channel(s) to OPERABLE status within 48 hours, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 19 - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:

1) Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and

2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following initiation of the pre-planned alternate outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

#In accordance with Engineered Safety Feature trip value specified by Table 3.3-4.

*With irradiated fuel in the storage pool.

ACTIONS 13, 16, 17, 17a and 17b are repeated from Table 3.3-3 for reference.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Area Monitors				
a. Containment - High Range (3RT-7820-1, 3RT-7820-2)	S	R	M	1, 2, 3, 4
b. Containment - Purge Isolation (3RT-7856-1, 3RT-7857-2)	S	R	M	1, 2, 3, 4, 6
c. Main Steam Line (3RT-7874A, 3RT-7875A, 3RT-7874B, 3RT-7875B)	S	R	M	1, 2, 3, 4
2. Process Monitors				
a. Fuel Storage Pool Airborne (3RT-7822-1, 3RT-7823-2)				
i. Gaseous	#	#	#	*
ii. Particulate/Iodine	#	#	#	*
b. Containment Airborne (3RT-7804-1, 3RT-7807-2)				
i. Gaseous	#	#	#	1, 2, 3, 4, 6
ii. Particulate	#	#	#	1, 3, 3, 4, 6
iii. Iodine	#	#	#	6
c. Control Room Airborne (2/3RT-7824-1, 2/3RT-7825-2)				
i. Particulate	#	#	#	All
ii. Gaseous	#	#	#	All

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
PROCESS MONITORS (Continued)				
3. Noble Gas Monitors				
a. Plant Vent Stack (2/3 RT-7808, 2RT-7865-1, 3RT-7865-1)	D	R	Q	1, 2, 3, 4
b. Condenser Evacuation System (3RT-7818, 3RT-7870-1)	D	R	Q	1, 2, 3, 4(1)

NOTES:

#In accordance with Table 4.3-2 surveillance requirements for these instrument channels.
*With irradiated fuel in the storage pool.

(1) With any main steam isolation valve and/or any main steam isolating valve bypass valve not fully closed.

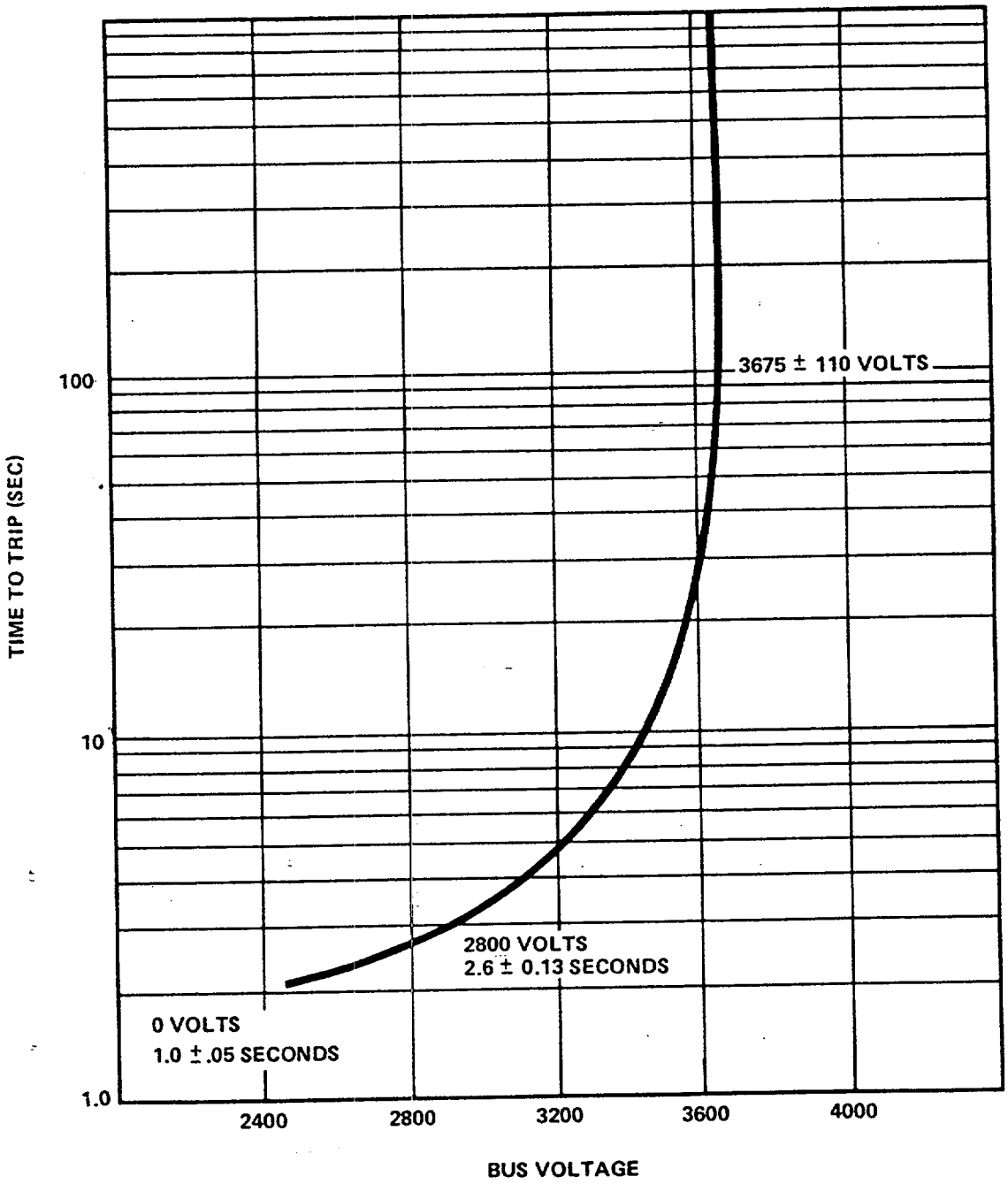

Figure 3.3-1
DEGRADED BUS VOLTAGE TRIP SETTING

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.6 The accident monitoring instrumentation channels shown in Table 3.3-10 shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

a. With one or more accident monitoring channels inoperable, take the ACTION shown in Table 3.3-10.

b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.6 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-7.

TABLE 3.3-10

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	ACTION
1. Containment Pressure - Narrow Range	2	1	20, 21
2. Containment Pressure - Wide Range	2	1	20, 21
3. Reactor Coolant Outlet Temperature - T_{Hot} (Wide Range)	2	1	20, 21
4. Reactor Coolant Inlet Temperature - T_{Cold} (Wide Range)	2	1	20, 21
5. Pressurizer Pressure - Wide Range	2	1	20, 21
6. Pressurizer Water Level	2	1	20, 21
7. Steam Line Pressure	2/steam generator	1/steam generator	20, 21
8. Steam Generator Water Level - Wide Range	2/steam generator	1/steam generator	20, 21
9. Refueling Water Storage Tank Water Level	2	1	20, 21
10. Auxiliary Feedwater Flow Rate	1/steam generator	N.A.	20
11. Reactor Coolant System Subcooling Margin Monitor	2	1	20, 21
12. Safety Valve Position Indicator	1/valve	N.A.	20
13. Spray System Pressure	2	1	20, 21
14. LPSI Header Temperature	2	1	20, 21
15. Containment Temperature	2	1	20, 21
16. Containment Water Level - Narrow Range	2	1	20, 21
17. Containment Water Level - Wide Range	2	1	20, 21
18. Core Exit Thermocouples	7/core quadrant	4/core quadrant	20, 21
19. Cold Leg HPSI Flow	1/cold leg	N.A.	20
20. Hot Leg HPSI Flow	1/hot leg	N.A.	20

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TABLE 3.3-10 (Continued)

ACTION STATEMENTS

ACTION 20 - With the number of OPERABLE accident monitoring channels less than the Required Number of Channels, either restore the inoperable channel to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 21 - With the number of OPERABLE accident monitoring channels less than the Minimum Channels OPERABLE requirement, either restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.

TABLE 4.3-7

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. Containment Pressure - Narrow Range	M	R
2. Containment Pressure - Wide Range	M	R
3. Reactor Coolant Outlet Temperature - T_{Hot} (Wide Range)	M	R
4. Reactor Coolant Inlet Temperature -T_{Cold} (Wide Range)	M	R
5. Pressurizer Pressure (Wide Range)	M	R
6. Pressurizer Water Level	M	R
7. Steam Line Pressure	M	R
8. Steam Generator Water Level (Wide Range)	M	R
9. Refueling Water Storage Tank Water Level	M	R
10. Auxiliary Feedwater Flow Rate	M	R
11. Reactor Coolant System Subcooling Margin Monitor	M	R
12. Safety Valve Position Indicator	M	R
13. Spray System Pressure	M	R
14. LPSI Header Temperature	M	R
15. Containment Temperature	M	R
16. Containment Water Level (Narrow Range)	M	R
17. Containment Water Level (Wide Range)	M	R
18. Core Exit Thermocouples	M	R
19. Cold Leg HPSI Flow	M	R
20. Hot Leg HPSI Flow	M	R

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RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 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 Specification 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the ODCM.*

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 less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13. Exert best efforts to return the instrument to OPERABLE status within 30 days and, additionally, if the inoperable instrument(s) remain inoperable for greater than 30 days, explain in the next Semiannual Radioactive Effluent Release Report why the inoperability was not corrected in a timely manner.

c. The provisions of Specifications 3.0.3, 3.0.4, and 6.9.1.13b are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9 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 operations at the frequencies shown in Table 4.3-9.

---

*Continuous monitoring and sampling of the containment purge exhaust directly from the purge stack shall be provided for the low and high volume (8-inch and 42-inch) containment purge prior to startup following the first refueling outage. Containment airborne monitor 3RT-7804-1 or 3RT-7807-2 and associated sampling media shall perform these functions prior to initial criticality. From initial criticality to the startup following the first refueling outage containment airborne monitor 3RT-7804-1 and associated sampling media shall perform the above required functions.

TABLE 3.3-13

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABILITY	ACTION
1. WASTE GAS HOLDUP SYSTEM			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release - 2/3 RT -7808, 2RT-7865-1 or 3RT-7865-1	1	*	35
b. Process Flow Rate Monitoring Device	1	*	36
2. WASTE GAS HOLDUP SYSTEM EXPLOSIVE GAS MONITORING SYSTEM			
a. Hydrogen Monitor	2	**	39
b. Oxygen Monitor	2	**	39
3. CONDENSER EVACUATION SYSTEM			
a. Noble Gas Activity Monitor - 3RT - 7818 or 3RT - 7870-1	1	***	37
b. Iodine Sampler	1	***	40
c. Particulate Sampler	1	***	40
d. Associated Sample Flow Measuring Device	1	***	36
e. Process Flow Rate Monitoring Device	1(4)	***	36
4. PLANT VENT STACK			
a. Noble Gas Activity Monitor - - 2/3 RT - 7808, 2RT-7865-1 or 3RT-7865-1	1	*	37
b. Iodine Sampler	1	*	40
c. Particulate Sampler	1	*	40
d. Associated Sample Flow Measuring Device	1	*	36
e. Process Flow Rate Monitoring Device	1(5)	*	36
5. CONTAINMENT PURGE SYSTEM			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release 3RT-7828 or 3RT-7865-1 (1)	1 (2)	*	38
b. Iodine Sampler	1 (2)	*	40
c. Particulate Sampler	1 (2)	*	40
d. Process Flow Rate Monitoring Device	1 (3)	*	36
e. Associated Sample Flow Measuring Device	1 (2)	*	36

TABLE 3.3-13 (Continued)

TABLE NOTATION

* At all times.

** During waste gas holdup system operation (treatment for primary system offgases).

***MODES 1-4 with any main steam isolation valve and/or any main steam isolating valve bypass valve not fully closed.

(1) Provided 3RT-7865-1 is equipped to automatically terminate containment purge release.

(2) Prior to completion of DCP53N, Containment Airborne Radiation Monitor 3RT-7804-1 performs the functions of 3RT-7828. 3RT-7804-1 is not equipped to monitor purge flow.

(3) Prior to completion of DCP53N, 3RT-7865-1 may perform this function for minipurge only. Otherwise comply with Action 36 if another means of continuously monitoring purge flow is not available.

(4) 3RT-7818 is not equipped to monitor process flow. If another means of continuously monitoring process flow is not available, then comply with ACTION 36.

(5) 2/3 RT-7808 is not equipped to monitor plant vent stack flow. If another means of continuously monitoring plant vent stack flow is not available, then comply with ACTION 36.

ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment provided that prior to initiating the release:

a. At least two independent samples of the tank's contents are analyzed, and

b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge valve lineup;

Otherwise, suspend releases of radioactive effluents via this pathway.

ACTION 36 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 8 hours. System design characteristics may be used to estimate flow.

ACTION 37 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided grab samples are taken at least once per 12 hours and these samples are analyzed for gross activity within 24 hours.

ACTION 38 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING of radioactive effluents via this pathway

OR

Prior to completion of DCP53N, and with Plant Vent Stack Monitor 3RT-7865-1 <u>not</u> capable of terminating containment purge release, PURGING may continue using 3RT-7865-1 provided that:

TABLE 3.3-13 (Continued)

TABLE NOTATION

1) Plant Vent Stack Monitor 3RT-7865-1 is aligned to the purge stack for the duration of the purge; and,

2) Plant Vent Stack Monitor 2/3 RT-7808 or 2RT-7865-1 is OPERABLE and aligned to the plant vent stack; and,

3) When PURGING is complete, 3RT-7865-1 is realigned to the plant vent stack; and,

4) In the event of a high activity alarm during the PURGE from any of 3RT-7865-1, 2RT-7865-1 or 2/3 RT-7808, an operator immediately suspends containment PURGING and realigns 3RT-7865-1 to the Plant Vent Stack.

ACTION 39 - With the number of channnels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, operation of this system may continue provided that the remaining OPERABLE channel is aligned to the waste gas surge tank. With two channels inoperable, operation of this system may continue provided that grab samples are taken at least once per 4 hours and analyzed within the following four hours.

ACTION 40 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via the affected pathway may continue provided samples are continuously collected with auxiliary sampling equipment as required in Table 4.11-2.

TABLE 4.3-9

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. WASTE GAS HOLDUP SYSTEM					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release - 2/3 RT-7808, 2RT-7865-1 or 3RT-7865-1	P	P	R(3)	Q(1)	*
b. Process Flow Rate Monitoring Device	P	N.A.	R	Q	*
2. WASTE GAS HOLDUP SYSTEM EXPLOSIVE GAS MONITORING SYSTEM					
a. Hydrogen Monitor (continuous)	D	N.A.	Q(4)	M	**
b. Oxygen Monitor (continuous)	D	N.A.	Q(5)	M	**
c. Hydrogen Monitor (periodic)	D	N.A.	Q(4)	M	**
d. Oxygen Monitor (periodic)	D	N.A.	Q(5)	M	**
3. CONDENSER EVACUATION SYSTEM					
a. Noble Gas Activity Monitor - 3RT - 7818, 3RT - 7870-1	D	M	R(3)	Q(2)	***
b. Iodine Sampler	W	N.A.	N.A.	N.A.	***
c. Particulate Sampler	W	N.A.	N.A.	N.A.	***
d. Associated Sample Flow Measuring Device	D	N.A.	R	Q	***
e. Process Flow Rate Monitoring Device (3RT-7870-1)	D	N.A.	R	Q	***
4. PLANT VENT STACK					
a. Noble Gas Activity Monitor - 2/3 RT-7808, 2RT-7865-1, or 3RT-7865-1	D	M	R(3)	Q(2)	*

TABLE 4.3-9 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
4. PLANT VENT STACK (Continued)					
b. Iodine Sampler	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler	W	N.A.	N.A.	N.A.	*
d. Associated Sample Flow Measuring Device	D	N.A.	R	Q	*
e. Process Flow Monitoring Device	D	N.A.	R	Q	*
5. CONTAINMENT PURGE SYSTEM(7)					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release - 3RT-7828 or 3RT-7865-1	D	P(6)	R(3)	Q(1)	*
b. Iodine Sampler	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler	W	N.A.	N.A.	N.A.	*
d. Process Flow Rate Monitoring Device	D	N.A.	R	Q	*
e. Associated Sample Flow Measuring Device	D	N.A.	R	Q	*

TABLE 4.3-9 (Continued)

TABLE NOTATION

*At all times.

**During waste gas holdup system operation (treatment for primary system offgases).

***MODES 1-4 with any main steam isolation valve and/or any main steam isolating valbe bypass valve not fully closed.

(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:#

1. Instrument indicates measured levels above the alarm/trip setpoint.
2. Circuit failure.
3. Instrument indicates a downscale failure.

(2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists#:

1. Instrument indicates measured levels above the alarm setpoint.
2. Circuit failure.
3. Instrument indicates a downscale failure.

(3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards 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) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

1. One volume percent hydrogen, balance nitrogen, and
2. Four volume percent hydrogen, balance nitrogen.

(5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

1. One volume percent oxygen, balance nitrogen, and
2. Four volume percent oxygen, balance nitrogen.

(6) Prior to each release and at least once per month.

(7) Prior to completion of DCP53N, these surveillance requirements are to be performed on the instruments indicated by Table 3.3-13.

#If the instrument controls are not set in the operate mode, procedures shall call for declaring the channel inoperable.

LOOSE-PART DETECTION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.10 The loose-part detection system shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With one or more loose part detection system channels 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 channel(s) to OPERABLE status.

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

SURVEILLANCE REQUIREMENTS

4.3.3.10 Each channel of the loose-part detection system shall be demonstrated OPERABLE by performance of a:

a. CHANNEL CHECK at least once per 24 hours,

b. CHANNEL FUNCTIONAL TEST at least once per 31 days, and

c. CHANNEL CALIBRATION at least once per 18 months.

3/4.3.4 TURBINE OVERSPEED PROTECTION

LIMITING CONDITION FOR OPERATION

3.3.4 At least one turbine overspeed protection system shall be OPERABLE.

APPLICABILITY: MODES 1, 2* and 3*.

ACTION:

a. With one stop valve or one control valve per high pressure turbine steam lead inoperable and/or with one reheat stop valve or one reheat intercept valve per low pressure turbine steam lead inoperable, restore the inoperable valve(s) to OPERABLE status within 72 hours, or close at least one valve in the affected steam lead or isolate the turbine from the steam supply within the next 6 hours.

b. With the above required turbine overspeed protection system otherwise inoperable, within 6 hours isolate the turbine from the steam supply.

SURVEILLANCE REQUIREMENTS

4.3.4 The above required turbine overspeed protection system shall be demonstrated OPERABLE:

a. At least once per 7 days by cycling each of the following valves through at least one complete cycle from the running position.

   1. Four high pressure turbine stop valves.
   2. Four high pressure turbine control valves.
   3. Six low pressure turbine reheat stop valves.
   4. Six low pressure turbine reheat intercept valves.

b. 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.

c. At least once per 18 months by performance of a CHANNEL CALIBRATION on the turbine overspeed protection systems.

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.

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*With any main steam line isolation valve and/or any main steam line isolation valve bypass valve not fully closed.

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

SAFETY EVALUATION
AMENDMENT NO. 31 TO NPF-10
AMENDMENT NO. 20 TO NPF-15
SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 & 3
DOCKET NOS. 50-361 AND 50-362

INTRODUCTION

Southern California Edison Company, on behalf of itself and the other licensees, San Diego Gas and Electric Company, the City of Riverside, California, and the City of Anaheim, California submitted applications for license amendments for San Onofre Nuclear Generating Station, Units 2 and 3, by letters dated March 2 and April 2, 1984 (reference Proposed Change Numbers 99 through 102 or PCN-99 through PCN-102). The amendments would change the technical specifications (T.S.) relating to radiation and radioactive effluent monitoring instrumentation as follows:

1. Proposed Change PCN-99 is a request to revise Technical Specification 3/4.3.2, "Engineered Safety Features Actuation System (ESFAS) Instrumentation." The proposed change clarifies requirements for radiation monitors which support the containment purge isolation ESFAS function to improve consistency with the Final Safety Analysis Report (FSAR), "Standard Radiological Effluent Technical Specifications for PWRs" (NUREG-0472), and technical specifications for other non-ESFAS functions served by the same instrument. The proposed change also reflects the addition of the dedicated purge effluent monitors which are to be installed in accordance with License Conditions 2.C(17) and 2.C(15) for Units 2 and 3, respectively.

2. Proposed Change PCN-100 is a request to revise Technical Specification 3/4.3.3.1, "Radiation Alarm Monitoring Instrumentation." The proposed change improves consistency with the FSAR and STS, consolidates NUREG-0737 wide range noble gas monitoring requirements from Specification 3/4.3.3.6, "Accident Monitoring Instrumentation," adds increased flexibility to Action statements and revises the applicability for the condenser evacuation system and plant vent stack monitors.

3. Proposed Change PCN-101 is a request to delete from Technical Specification 3/4.3.3.6, "Accident Monitoring Instrumentation," those radiation monitors listed in Table 3.3-10 which were installed to satisfy NUREG-0737 wide range noble gas monitoring requirements. Consistent with Standard Technical Specifications and Proposed Change PCN-100, these NUREG-0737 monitors will be covered by Specification 3/4.3.3.1, "Radiation Monitoring Instrumentation."

4. Proposed change PCN-102 is a request to revise Technical Specification 3/4.3.3.9, "Radioactive Gaseous Effluent Monitoring Instrumentation." The proposed change increases operating flexibility by accommodating recent and near-future design changes when implemented, revising Action statements, and eliminating cross referencing to other specifications not relating to effluent monitoring.

The NRC staff's evaluation of each of these changes is given below.

EVALUATION

1. Proposed Change PCN-99.

This item involves the following specific changes in the technical specifications:

a. Technical Specification Table 3.3-3, Item 12b, "Containment Airborne Radiation Monitors," and Item 12c, "Containment Area Radiation Monitors."

   The applicable modes and actions for engineered safety feature actuations are revised to reflect the FSAR (Sections 7.3.1.1.5 and 11.5.2.1.4.5 for airborne radiation monitors, and Sections 7.3.1.1.5 and 12.3.4.3.1 for area radiation monitors) and to be consistent with NUREG-0472, Draft Revision 3, "Standard Radiological Effluent Technical Specifications for PWRs," dated January, 1983. The revised applicable modes require the monitors (gaseous, particulate, and iodine) to actuate containment purge isolation in the event of a fuel handling accident in Mode 6, while the gaseous and particulate channels of the monitors are required to detect a reactor coolant system leak in Modes 1 through 4 and to isolate containment purge. The revised action statements are consistent with NUREG-0472, Revision 3.

b. Technical Specification Table 3.3-4, Item 12b, "Containment Airborne Radiation Monitors," and Item 12c, "Containment Area Radiation Monitors."

   The containment airborne monitors currently satisfy the purge effluent monitoring requirements of Specification 3.3.3.9. Accordingly, the setpoints for this monitor are currently specified by the offsite dose calculation manual (ODCM). Prior to startup following the first refueling, Unit 2 License Condition 2.C(17) and Unit 3 License Condition 2.C(15), require installation of a dedicated purge effluent monitor for their respective units. On completion of these design changes, the containment airborne monitors will no longer serve the purge effluent monitoring function. Therefore, it will no longer be appropriate to specify their setpoints in accordance with the ODCM. The proposed change requires that the setpoints be sufficiently high to prevent spurious alarm/trip but low enough to assure alarm/trip on an inadvertent release. This is consistent with the requirements of NUREG-0472, Revision 3, for establishing setpoints.

   The containment area radiation monitor trip setpoints for containment purge isolation are specified for applicable operational Modes 1 through 4. The 325 mR/hr trip setpoint value is consistent with the same monitor alarm setpoint listed in Table 3.3-6 (Item 1.b) and the 340 mR/hr allowable value results from the addition of 5% of the trip setpoint value to account for the width of this analog instrument's indicator needle. This is consistent with the practice used to establish the allowable values

from trip setpoints of other radiation monitors with analog indicators in Table 3.3-4.

The proposed changes a. and b. described above meet the requirements of NUREG-0472, and do not remove or relax any existing safety requirements. Therefore, the staff finds proposed change PCN-99 to be acceptable.

2. Proposed Changes PCN-100 and 101.

These items involve the following specific changes in the technical specifications:

a. Technical Specification Sections 3/4.3.3.1, "Radiation Monitoring Instrumentation."

Consistent with NUREG-0472, Revision 3, the word "alarm" is deleted from the sections where it is used in the context of alarm function and words "alarm/trip" are substituted for the word "alarm" where it is used in the context of setpoint. Some of the radiation monitor channels in Table 3.3-6, "Radiation Monitoring Instrumentation" applicable to Sections 3/4.3.3.1 do not provide "alarm" function and others provide "alarm," as well as "trip" functions. The proposed changes will improve the clarity of the monitor channel functions.

b. Technical Specification Tables 3.3-3, 3.3-4, and 3.3-6, "Radiation Monitoring Instrumentation."

Both Tables 3.3-3 and 3.3-6 delineate functional requirements for radiation monitors which provide the control room isolation signal, the fuel handling building isolation signal, and the containment purge isolation signal. The proposed changes to Items 1.b, 2.a, 2.b, and 2.c of Table 3.3-6 make setpoints and Action requirements consistent with those in Tables 3.3-3 and 3.3-4 by direct reference. The proposed changes are consistent with the STS format.

c. Technical Specification Tables 3.3-6, "Radiation Monitoring Instrumentation," and 3.3-10, "Accident Monitoring Instrumentation."

The operability requirements for radiation monitors required by NUREG-0737 (i.e., the containment high range area monitor, main steam line monitor, plant stack monitor, and condenser evacuation monitor) are specified in both Tables 3.3-6 and 3.3-10. The proposed changes consolidate the requirements for these radiation monitors into Table 3.3-6 and delete them from Table 3.3-10. The proposed changes will reduce the complexity of the specifications consistent with the STS format.

In addition, the proposed changes reduce the required number of high range plant vent stack monitors from two to one. We find this change acceptable because (1) exhaust from the shared auxiliary buildings and the two fuel handling buildings from both Unit 2 and 3 are mixed in a

common plenum and released via the Unit 2 and 3 plant vent stacks, (2) the licensee has provided sufficient operating data to show that an effective mixing of vent stack exhaust exists in the common plenum, (3) a valid estimate of the releases from one plant vent stack based on the readings from the other unit's plant vent stack can be obtained, and (4) in addition to two high range noble gas monitors, the normal range monitor will monitor the plant vent stack releases from both units for noble gas during plant normal operation including anticipated operational occurrences. This design feature which utilizes the common plenum has been reviewed and approved by the staff during its operating license review. The staff's favorable evaluation is presented in the San Onofre 2 and 3 Safety Evaluation Report, NUREG-0712.

d. Technical Specification Table 3.3-6, ACTION STATEMENT 18

The current ACTION STATEMENT 18 refers to ACTION STATEMENTS 20 and 21 of Technical Specification 3.3.3.6 (indirect cross reference) and the statement allows 7 days to restore an inoperable channel when one of two channels (containment high range area monitors) become inoperable. The proposed change (1) eliminates the current indirect reference by providing direct and applicable statements in ACTION STATEMENT 18, and (2) allows more time (30 days) to restore an inoperable channel to operable status when one of two required channels becomes inoperable. There is no change for the allowable time limit (72 hours) when <u>both</u> required channels become inoperable.

The licensees state that the high range area monitors have proven to be difficult to troubleshoot. The difficulty associated with troubleshooting these instruments results from the requirement for these instruments to be enviornmentally qualified to operate in the postulated high post-accident radiation fields. This requirement precludes the use of pre-amplifiers located at the detectors. As a result, only the very small currents generated by the detectors are carried by the cables to the instrument electronics located in low radiation areas. Because of the small currents involved, troubleshooting is difficult and time consuming. The proposed change to allow 30 days to restore an inoperable instrument to operable status would significantly reduce the possibility of a reactor shutdown.

The staff finds the proposed changes acceptable because (1) there is no change in the 72 hour allowable time limit when both channels become inoperable and (2) the requirement of 30 days to restore an inoperable channel is consistent with the time allowed for other radiation monitoring instruments.

e. Technical Specification Table 3.3-6, ACTION STATEMENT 19

The proposed change clarifies the word "event" in ACTION STATEMENT 19 by deleting it and substituting the phrase "...initiation of the pre-planned alternate..." The word "event" is ambiguous in that the event could be either the inoperability of the channel or the initiation of the pre-planned

alternate. If "event" refers to the inoperability, then in a situation where the channel was restored to operable status within 72 hours and no pre-planned alternate was initiated, it would be meaningless to require that a special report be prepared outlining the action taken, and plans and schedule for restoring operability. Therefore, the proposed change clarifies ACTION 19 to require a special report only if the inoperability is not corrected with 72 hours and the pre-planned alternate is initiated. The staff finds this change to be acceptable because it improves clarity.

f. Technical Specification Table 3.3-6, APPLICABLE MODES

The plant stack and condenser evacuation system noble gas monitors are required to be operational during normal plant operation, as well as during accident conditions and, therefore, these monitors appear in both Tables 3.3-6, "Radiation Monitoring Instrumentation," and 3.3-13, "Radioactive Gaseous Effluent Monitoring Instrumentation." The current requirements for applicable modes for these monitors are "ALL" modes in both tables. The proposed changes reduce the applicability for the plant vent stack and condenser evacuation system monitors from "ALL" to Modes 1, 2, 3, and 4 in Table 3.3-6. This is consistent with the standard technical specifications for radiation monitoring instrumentation. The effect of this will be to relieve more stringent accident monitoring requirements from being applied in modes where only effluent monitoring is the primary concern.

The condenser evacuation system is monitored because it is a potential gaseous radioactive effluent release path during normal plant operation due to primary to secondary leakage within the allowable limits and in the event of a steam generator tube rupture. However, when the main steam isolation valves (MSIV's) and main steam isolating valve bypass valves are fully closed, the condenser is isolated from its potential source of gaseous activity and, therefore, is not a potential gaseous radioactive effluent release path when these conditions are met. Accordingly, the proposed change requires noble gas monitoring for the condenser evacuation system in Modes 1-4 only when the MSIV's and MSIV bypass valves are open. The staff finds this change to be acceptable because it is consistent with the standard technical specifications.

g. Technical Specification Tables 3.3-6 and 4.3-3

The proposed changes identify all required radiation monitors in Tables 3.3-6 and 4.3-6 by instrument numbers to each monitor to improve clarity of the technical specifications.

Based on the foregoing evaluation, we find that the proposed changes a. through g. described above will not remove or relax any existing requirement related to the probability or consequences of accidents previously considered in the San Onofre 2 and 3 Safety Evaluation Report, and its supplements. Therefore, we find proposed changes PCN-100 and PCN-101 acceptable.

3. Proposed Change PCN-102

This item involves the following specific changes, which are being made to implement editorial changes and clarifications to improve consistency with the actual as-built plant configuration, the commitments made in the San Onofre FSAR, and NUREG-0472, "Standard Radiological Technical Specifications for PWRs," Draft Revision 3, dated January 1983.

a. Table 3.3-13, "Radioactive Gaseous Effluent Monitoring Instrumentation"

(1) Items 1, 3, 4, and 5

The terminology for flow rate measuring devices for each instrument is revised for clarity (i.e., "sample line flows" vs "ventilation air flows").

(2) Item 1

The waste gas holdup system noble gas monitor (2/3 RT-7808) in Item 1 may be replaced by high range plant vent stack noble gas monitors (2RT-7865-1 or 3RT-7865-1) for providing alarm and automatic termination of releases from the waste gas holdup system and for meeting the minimum channels operable requirements. This substitution is acceptable since the plant vent stacks are the final release point for waste gas holdup system tank releases and the plant vent stack monitors provide automatic termination of waste gas holdup system tank releases.

(3) ACTION No. 35

The licensee requested the deletion of the statement "Otherwise suspend release of radioactive effluents in this pathway" and the "14 day limit" requirement with the number of channels operable less than required by the minimum channels operable requirement from ACTION statement No. 35. Consistent with NUREG-0472, Revision 3, we find the deletion of the "14 day limit" requirement to be acceptable. However, we believe the statement "Otherwise suspend..." should remain in the action statement since this statement is now only applicable to subparagraphs (a) and (b) in ACTION No. 35. Without meeting these requirements in (a) and (b), the release should be suspended.

(4) ACTION Statement No. 39

Consistent with NUREG-0472, Revision 3, this action statement is revised to require grab samples at least once per four hours with analysis within next four hours to verify compliance with Technical Specificatin 3.11.2.5 and provide adequate assurance that an explosive gas mixture does not exist. The previous wording required plant hot shutdown within six hours when both channels are inoperable. This action statement is also revised to delete the 14 day system operational

limit requirement with the number of channels operable one less than required by the minimum channels operable. Instead, the action statement now requires the remaining operable channel to be aligned to the waste gas surge tank until both channels are back in operation. The waste gas surge tank is of greater interest from the standpoint of preventing explosive gas mixtures in the decay tanks since the decay tanks are operated always above atmospheric pressure, thereby preventing air/oxygen inleakage, and an explosive gas mixture cannot exist in the decay tanks unless one existed in the surge tank before compression. These revisions will then eliminate potential inconsistency with Technical Specification 3.3.3.9(c) which specifies the provisions of Technical Specifications 3.0.3 and 3.0.4 are not applicable for Technical Specification 3.3.3.9.

(5) 1.5 Item 3, Applicability, Condenser Evacuation System Monitor

The applicability for Item 3 is revised from "all MODES" to "MODES 1-4 with any main steam isolation valve (MSIV) and/or any main steam isolating valve bypass valve not fully closed." The condenser evacuation system is monitored because it is a potential radioactive gaseous release pathway. Primary-to-secondary leakage is the only source of gaseous activity which could be potentially released via this pathway. When the MISV's and MSIV bypass valves are fully closed, this pathway is isolated from the source and, therefore, is not required to be monitored.

(6) 1.6 Item 5, Containment Purge System

Installation of a dedicated purge effluent monitor (2/3 RT-7828) for each unit is required by SONGS Unit Nos. 2 and 3 License Conditions 2(c)17 and 2(c)15, respectively. In addition, the licensee states that the plant vent stack high range noble gas monitors will be equipped to automatically terminate purge releases from their respective unit. This installation and modification will be completed by the end of the first refueling outage for Unit 2. Accordingly, Notes (1), (2) and (3) are added and Action Statement No. 38 is revised to reflect these changes.

(7) 1.7 ACTION Nos. 35, 36, 37, 38, 39, and 40

The licensees requested the deletion of the limits specified as a fixed number of days in the above Action numbers with the number of channels operable one less than required by the minimum channels operable statement. We find these requested changes to be acceptable because they are consistent with NUREG-0472, Revision 3. Furthermore, for clarity, we are revising Specification 3.3.3.9, Action (b) to read "Exert best efforts <u>to return</u> the instrument to OPERABLE status within 30 days and, additionally, ..."

(8) ACTION No. 36

The licensees requested to use the system design flow rates to estimate ventilation flow since the current ACTION 36 does not specify the means by which flow rates may be estimated. Since the design flow rates are not subject to rapid change, the interval for flow estimation is revised to at least once per 8 hours from once per 4 hours. Notes (4) and (5) are added to clarify the flow monitoring requirements. Because the clarified flow monitoring requirements will provide adequate estimation of ventilation flow, we find the proposed changes to be acceptable.

(9) ACTION No. 37

Consistent with NUREG-0472, Revision 3, the grab sample intervals are increased to 12 hours from 8 hours.

(10) Table Notes (a), (b) and (c)

Consistent with NUREG-0472, Revision 3, these notes are deleted as the functions referred to are specified elsewhere.

(b) Table 4.3-9, Radioactive Gaseous Effluent Monitoring Instrumentation Surveillance Requirements

The licensees propose to delete weekly channel check surveillance requirements for iodine and particulate samplers since they are fixed canisters which are removed weekly in accordance with Technical Specification 4.11.2.1.2, Table 4.11-2, Item D. A channel check is defined as a qualitative assessment of channel behavior during operation by observation. After each weekly replacement of the canisters, a channel check can be easily and routinely performed to assure proper operation of the sample canisters. Therefore, this change is not acceptable to the staff.

Consistent with NUREG-0472, Revision 3, channel check and channel functional test frequencies for the containment purge noble gas monitors are revised to daily and quarterly, respectively, from each shift and monthly.

Based on the foregoing evaluation, we find proposed changes PCN-99 through PCN-102 to be acceptable because they will not remove or relax any existing requirement related to the probability or consequences of accidents previously considered in the San Onofre 2 and 3 Safety Evaluation Report (NUREG-0712) and in supplements thereto. The staff concludes that the proposed changes will not remove or relax any existing requirement needed to provide reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner. Therefore, we find the proposed changes acceptable.

CONTACT WITH STATE OFFICIAL

The NRC staff has advised the Chief of the Radiological Health Branch, State Department of Health Services, State of California, of the proposed determinations of no significant hazards consideration. No comments were received.

ENVIRONMENTAL CONSIDERATION

These amendments involve changes in the installation or use of facility components located within the restricted area. The staff has determined that the amendments involve no significant increase in the amounts of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupation radiation exposure. The Commission has previously issued proposed findings that the amendments involve no significant hazards consideration, and there has been no public comment on such findings. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR Sec. 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.

CONCLUSION

Based upon our evaluation of the proposed changes to the San Onofre Units 2 and 3 Technical Specifications, we have concluded that: there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public. We, therefore, conclude that the proposed changes are acceptable.

Dated: January 11, 1985

January 11, 1985

ISSUANCE OF AMENDMENT NO. 31 TO FACILITY OPERATING LICENSE NPF-10
AND AMENDMENT NO. 20 TO FACILITY OPERATING LICENSE NPF-15
SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3

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