

NPF-10-65
NPF-15-65

ATTACHMENT "A"

EXISTING UNIT 2 TECHNICAL SPECIFICATION

8304190347 830415
PDR ADOCK 05000361
PDR

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1. GROSS RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE		
a. Liquid Radwaste Effluent Line - 2/3 RT - 7813	1	28
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line - 2RT - 7817	1	29
c. Turbine Building Sumps Effluent Line - 2RT - 7821	1	30
2. FLOW RATE MEASUREMENT DEVICES		
a. Liquid Radwaste Effluent Line	1	31
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line	1	31

TABLE 4.3-8

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. GROSS BETA OR GAMMA RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE				
a. Liquid Radwaste Effluents Line - 2/3 RI - 7813	D	P	R(2)	Q(1)
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line - 2RT - 7817	D	M	R(2)	Q(1)
c. Turbine Building Sumps Effluent Line - 2RT - 7821	D	M	R(2)	Q(1)
2. FLOW RATE MEASUREMENT DEVICES				
a. Liquid Radwaste Effluent Line	D(3)	N.A.	R	Q
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line	D(3)	N.A.	R	Q

TABLE 4.11-1

RADIOACTIVE LIQUID WASTE SAMPLING AND ANALYSIS PROGRAM

Liquid Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) ($\mu\text{Ci/ml}$) ^a
A. Batch Waste Released Tanks ^d	P Each Batch	P Each Batch	Principal Gamma Emitters ^f	5×10^{-7}
1. Primary Plant Makeup Storage Tanks			I-131	1×10^{-6}
2. Radwaste Primary Tanks	P One Batch/M	M	Dissolved and Entrained Gases (Gamma emitters)	1×10^{-5}
3. Radwaste Secondary Tanks	P Each Batch	M Composite ^b	H-3	1×10^{-5}
4. Miscellaneous Waste Condensate Monitor Tanks			Gross Alpha	1×10^{-7}
5. Neutralization Sump	P Each Batch	Q Composite ^b	Sr-89, Sr-90	5×10^{-8}
			Fe-55	1×10^{-6}
B. Continuous Releases ^{e, #}	D Grab Sample	W Composite ^c	Principal Gamma Emitters ^f	5×10^{-7}
1. Steam Generator Blowdown			I-131	1×10^{-6}
2. Turbine Building Sump	M Grab Sample	M	Dissolved and Entrained Gases (Gamma Emitters)	1×10^{-5}
3. Miscellaneous Waste Evaporator Condensate*	D Grab Sample	M Composite ^c	H-3	1×10^{-5}
			Gross Alpha	1×10^{-7}
4. Salt Water Discharge From Component Cooling Heat Exchanger	D Grab Sample	Q Composite ^c	Sr-89, Sr-90	5×10^{-8}
			Fe-55	1×10^{-6}

TABLE 4.11-1 (Continued)

TABLE NOTATION

- b. A composite sample is one in which the quantity of liquid sampled is proportional to the quantity of liquid waste discharged and in which the method of sampling employed results in a specimen which is representative of the liquids released.
- c. To be representative of the quantities and concentrations of radioactive materials in liquid effluents, samples shall be collected continuously in proportion to the rate of flow of the effluent stream. Prior to analyses, all samples taken for the composite shall be thoroughly mixed in order for the composite sample to be representative of the effluent release.
- d. A batch release is the discharge of liquid wastes of a discrete volume. Prior to sampling for analyses, each batch shall be isolated, and then thoroughly mixed, by a method described in the ODCM, to assure representative sampling.
- e. A continuous release is the discharge of liquid wastes of a nondiscrete volume; e.g., from a volume of system that has an input flow during the continuous release.
- f. The principal gamma emitters for which the LLD specification applies exclusively are the following radionuclides: Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141, and Ce-144. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measurable and identifiable, together with the above nuclides, shall also be identified and reported.
- * Sampling of this flow is not required if, at least once per 31 days, condensate monitor tank bypass valve, SA 1415-2½"-200, is verified locked shut.
- # Administrative controls shall provide for composite sampling of the continuous releases per note b vice note c until January 1, 1983. Continuous proportional sampling shall be in accordance with note c from January 1, 1983 and all times subsequent as required by Table 4.11-1.

NPF-10-65
NPF-15-65

ATTACHMENT "B"

PROPOSED UNIT 2 TECHNICAL SPECIFICATION

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1. GROSS RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE		
a. Liquid Radwaste Effluent Line - 2/3 RT - 7813	1	28
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line - 2RT - 7817	1	29
c. Turbine Building Sumps Effluent Line - 2RT - 7821	1	30
2. FLOW RATE MEASUREMENT DEVICES		
a. Liquid Radwaste Effluent Line	1	31
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line	1	31
c. Steam Generator (E088) Blowdown Bypass Effluent Line.	1	31
d. Steam Generator (E089) Blowdown Bypass Effluent.	1	31
d. Steam Generator (E088) Blowdown Bypass Effluent Line - 2RT6759	1	29
e. Steam Generator (E089) Blowdown Bypass Effluent Line - 2RT6753	1	29

TABLE 4.3-8

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. GROSS BETA OR GAMMA RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE				
a. Liquid Radwaste Effluents Line - 2/3 RT - 7813	D	P	R(2)	Q(1)
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line - 2RT - 7817	D	M	R(2)	Q(1)
c. Turbine Building Sumps Effluent Line - 2RT - 7821	D	M	R(2)	Q(1)
2. FLOW RATE MEASUREMENT DEVICES				
a. Liquid Radwaste Effluent Line	D(3)	N.A.	R	Q
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line	D(3)	N.A.	R	Q
c. Steam Generator (E088) Blowdown Bypass Effluent Line.	D(3)	N.A.	R	Q
d. Steam Generator (E089) Blowdown Bypass Effluent Line.	D(3)	N.A.	R	Q
d. Steam Generator (E088) Blowdown Bypass Effluent Line - 2RT6759	D	M	R(2)	Q(1)
e. Steam Generator (E089) Blowdown Bypass Effluent Line - 2RT6753	D	M	R(2)	Q(1)

TABLE 4.11-1

RADIOACTIVE LIQUID WASTE SAMPLING AND ANALYSIS PROGRAM

Liquid Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) (pCi/ml) ^a
A. Batch Waste Released Tanks	P Each Batch	P Each Batch	Principal Gamma Emitters	5×10^{-7}
1. Primary Plant Makeup Storage Tanks			I-131	1×10^{-6}
2. Radwaste Primary Tanks	P One Batch/M	M	Dissolved and Entrained Gases (Gamma emitters)	1×10^{-5}
3. Radwaste Secondary Tanks	P Each Batch	M Composite ^b	H-3	1×10^{-5}
4. Miscellaneous Waste Condensate Monitor Tanks			Gross Alpha	1×10^{-7}
5. Neutralization Sump	P Each Batch	Q Composite ^b	Sr-89, Sr-90	5×10^{-8}
			Fe-55	1×10^{-6}
B. Continuous Releases ^{e, #}	D Grab Sample	W Composite ^c	Principal Gamma Emitters	5×10^{-7}
1. Steam Generator Blowdown			I-131	1×10^{-6}
2. Turbine Building Sump	M Grab Sample	M	Dissolved and Entrained Gases (Gamma Emitters)	1×10^{-5}
3. Miscellaneous Waste Evaporator Condensate*	D Grab Sample	M Composite ^c	H-3	1×10^{-5}
4. Salt Water Discharge From Component Cooling Heat Exchanger			Gross Alpha	1×10^{-7}
	D Grab Sample	Q Composite ^c	Sr-89, Sr-90	5×10^{-8}
			Fe-55	1×10^{-6}

5. Steam Generator Blowdown Bypass ###**

TABLE 4.11-1 (Continued)

TABLE NOTATION

- b. A composite sample is one in which the quantity of liquid sampled is proportional to the quantity of liquid waste discharged and in which the method of sampling employed results in a specimen which is representative of the liquids released.
- c. To be representative of the quantities and concentrations of radioactive materials in liquid effluents, samples shall be collected continuously in proportion to the rate of flow of the effluent stream. Prior to analyses, all samples taken for the composite shall be thoroughly mixed in order for the composite sample to be representative of the effluent release.
- d. A batch release is the discharge of liquid wastes of a discrete volume. Prior to sampling for analyses, each batch shall be isolated, and then thoroughly mixed, by a method described in the ODCM, to assure representative sampling.
- e. A continuous release is the discharge of liquid wastes of a nondiscrete volume; e.g., from a volume of system that has an input flow during the continuous release.
- f. The principal gamma emitters for which the LLD specification applies exclusively are the following radionuclides: Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141, and Ce-144. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measurable and identifiable, together with the above nuclides, shall also be identified and reported.
- * Sampling of this flow is not required if, at least once per 31 days, condensate monitor tank bypass valve, SA 1415-2½"-200, is verified locked shut.
- # Administrative controls shall provide for composite sampling of the continuous releases per note b vice note c until January 1, 1983. Continuous proportional sampling shall be in accordance with note c from January 1, 1983 and all times subsequent as required by Table 4.11-1.
- ## Administrative controls shall provide for composite sampling of the continuous releases per note b vice note c until January 1, 1984. Continuous proportional sampling shall be in accordance with note c from January 1, 1984 and all times subsequent as required by Table 4.11-1.
- ** Sampling of this flow is not required if at least once per 31 days blowdown bypass isolation valve (S21301MU618 for Steam Generator E088 and S21301MU619 for Steam Generator E089) is verified locked shut.

NPF-10-65
NPF-15-65

ATTACHMENT "C"
EXISTING UNIT 3 TECHNICAL SPECIFICATION

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1. GROSS RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE		
a. Liquid Radwaste Effluent Line - 2/3 RT - 7813	1	28
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line - 3RT - 7817	1	29
c. Turbine Building Sumps Effluent Line - 3RT - 7821	1	30
2. FLOW RATE MEASUREMENT DEVICES		
a. Liquid Radwaste Effluent Line	1	31
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line	1	31

TABLE 4.3-8

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. GROSS BETA OR GAMMA RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE				
a. Liquid Radwaste Effluents Line - 2/3 RT - 7813	D	P	R(2)	Q(1)
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line - 3RT - 7817	D	M	R(2)	Q(1)
c. Turbine Building Sumps Effluent Line - 3RT - 7821	D	M	R(2)	Q(1)
2. FLOW RATE MEASUREMENT DEVICES				
a. Liquid Radwaste Effluent Line	D(3)	N.A.	R	Q
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line	D(3)	N.A.	R	Q

SAN ONOFRE-UNIT 3

3/4 3-67

NOV 15 1982

TABLE 4.11-1

RADIOACTIVE LIQUID WASTE SAMPLING AND ANALYSIS PROGRAM

Liquid Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) (μCi/ml) ^a
A. Batch Waste Release Tanks ^d	P Each Batch	P Each Batch	Principal Gamma Emitters	5x10 ⁻⁷
1. Primary Plant Makeup Storage Tanks			I-131	1x10 ⁻⁶
2. Radwaste Primary Tanks	P One Batch/M	M	Dissolved and Entrained Gases (Gamma emitters)	1x10 ⁻⁵
3. Radwaste Secondary Tanks	P Each Batch	M Composite ^b	H-3	1x10 ⁻⁵
4. Miscellaneous Waste Condensate Monitor Tanks			Gross Alpha	1x10 ⁻⁷
5. Neutralization Sump	P Each Batch	Q Composite ^b	Sr-89, Sr-90	5x10 ⁻⁸
			Fe-55	1x10 ⁻⁶
B. Continuous Releases ^{e, #}	D Grab Sample	W Composite ^c	Principal Gamma Emitters	5x10 ⁻⁷
1. Steam Generator Blowdown			I-131	1x10 ⁻⁶
2. Turbine Building Sump	M Grab Sample	M	Dissolved and Entrained Gases (Gamma Emitters)	1x10 ⁻⁵
3. Miscellaneous Waste Evaporator Condensate*	D Grab Sample	M Composite ^c	H-3	1x10 ⁻⁵
4. Salt Water Discharge From Component Cooling Heat Exchanger			Gross Alpha	1x10 ⁻⁷
	D Grab Sample	Q Composite ^c	Sr-89, Sr-90	5x10 ⁻⁸
			Fe-55	1x10 ⁻⁶

TABLE 4.11-1 (Continued)

TABLE NOTATION

- b. A composite sample is one in which the quantity of liquid sampled is proportional to the quantity of liquid waste discharged and in which the method of sampling employed results in a specimen which is representative of the liquids released.
- c. To be representative of the quantities and concentrations of radioactive materials in liquid effluents, samples shall be collected continuously in proportion to the rate of flow of the effluent stream. Prior to analyses, all samples taken for the composite shall be thoroughly mixed in order for the composite sample to be representative of the effluent release.
- d. A batch release is the discharge of liquid wastes of a discrete volume. Prior to sampling for analyses, each batch shall be isolated, and then thoroughly mixed, by a method described in the ODCM, to assure representative sampling.
- e. A continuous release is the discharge of liquid wastes of a nondiscrete volume; e.g., from a volume of system that has an input flow during the continuous release.
- f. The principal gamma emitters for which the LLD specification applies exclusively are the following radionuclides: Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141, and Ce-144. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measurable and identifiable, together with the above nuclides, shall also be identified and reported.
- * Sampling of this flow is not required if, at least once per 31 days, condensate monitor tank bypass valve, SA 1415-2½"-200, is verified locked shut.
- # Administrative controls shall provide for composite sampling of the continuous releases per note b vice note c until January 1, 1983. Continuous proportional sampling shall be in accordance with note c from January 1, 1983 and all times subsequent as required by Table 4.11-1.

NOV 15 1982

NPF-10-65
NPF-15-65

ATTACHMENT "D"

PROPOSED UNIT 3 TECHNICAL SPECIFICATION

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1. GROSS RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE		
a. Liquid Radwaste Effluent Line - 2/3 RT - 7813	1	28
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line - 3RT - 7817	1	29
c. Turbine Building Sumps Effluent Line - 3RT - 7821	1	30
2. FLOW RATE MEASUREMENT DEVICES		
a. Liquid Radwaste Effluent Line	1	31
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line	1	31
c. Steam Generator (E088) Blowdown Bypass Effluent Line.	1	31
d. Steam Generator (E089) Blowdown Bypass Effluent.	1	31
d. Steam Generator (E088) Blowdown Bypass Effluent Line - 3RT6759	1	29
e. Steam Generator (E089) Blowdown Bypass Effluent Line - 3RT6753	1	29

NOV 15 1982

TABLE 4.3-8

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. GROSS BETA OR GAMMA RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE				
a. Liquid Radwaste Effluents Line - 2/3 RT - 7813	D	P	R(2)	Q(1)
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line - 3RT - 7817	D	M	R(2)	Q(1)
c. Turbine Building Sumps Effluent Line - 3RT - 7821	D	M	R(2)	Q(1)
2. FLOW RATE MEASUREMENT DEVICES				
a. Liquid Radwaste Effluent Line	D(3)	N.A.	R	Q
b. Steam Generator Blowdown (Neutralization Sump) Effluent Line	D(3)	N.A.	R	Q
c. Steam Generator (E088) Blowdown Bypass Effluent Line.	D(3)	N.A.	R	Q
d. Steam Generator (E089) Blowdown Bypass Effluent Line.	D(3)	N.A.	R	Q
d. Steam Generator (E088) Blowdown Bypass Effluent Line - 3RT6759	D	M	R(2)	Q(1)
c. Steam Generator (E089) Blowdown Bypass Effluent Line - 3RT6753	D	M	R(2)	Q(1)

TABLE 4.11-1

RADIOACTIVE LIQUID WASTE SAMPLING AND ANALYSIS PROGRAM

Liquid Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) ($\mu\text{Ci/ml}$) ^a
A. Batch Waste Release Tanks	P Each Batch	P Each Batch	Principal Gamma Emitters	5×10^{-7}
1. Primary Plant Makeup Storage Tanks			I-131	1×10^{-6}
2. Radwaste Primary Tanks	P One Batch/M	M	Dissolved and Entrained Gases (Gamma emitters)	1×10^{-5}
3. Radwaste Secondary Tanks	P Each Batch	M Composite ^b	H-3	1×10^{-5}
4. Miscellaneous Waste Condensate Monitor Tanks			Gross Alpha	1×10^{-7}
5. Neutralization Sump	P Each Batch	Q Composite ^b	Sr-89, Sr-90	5×10^{-8}
			Fe-55	1×10^{-6}
B. Continuous Releases ^{e, #}	D Grab Sample	W Composite ^c	Principal Gamma Emitters	5×10^{-7}
1. Steam Generator Blowdown			I-131	1×10^{-6}
2. Turbine Building Sump	M Grab Sample	M	Dissolved and Entrained Gases (Gamma Emitters)	1×10^{-5}
3. Miscellaneous Waste Evaporator Condensate*	D Grab Sample	M Composite ^c	H-3	1×10^{-5}
4. Salt Water Discharge From Component Cooling Heat Exchanger			Gross Alpha	1×10^{-7}
	D Grab Sample	Q Composite ^c	Sr-89, Sr-90	5×10^{-8}
			Fe-55	1×10^{-6}
5. Steam Generator Blowdown Bypass ^{***}				

NOV 15 1982

TABLE 4.11-1 (Continued)

TABLE NOTATION

- b. A composite sample is one in which the quantity of liquid sampled is proportional to the quantity of liquid waste discharged and in which the method of sampling employed results in a specimen which is representative of the liquids released.
- c. To be representative of the quantities and concentrations of radioactive materials in liquid effluents, samples shall be collected continuously in proportion to the rate of flow of the effluent stream. Prior to analyses, all samples taken for the composite shall be thoroughly mixed in order for the composite sample to be representative of the effluent release.
- d. A batch release is the discharge of liquid wastes of a discrete volume. Prior to sampling for analyses, each batch shall be isolated, and then thoroughly mixed, by a method described in the ODCM, to assure representative sampling.
- e. A continuous release is the discharge of liquid wastes of a nondiscrete volume; e.g., from a volume of system that has an input flow during the continuous release.
- f. The principal gamma emitters for which the LLD specification applies exclusively are the following radionuclides: Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141, and Ce-144. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measurable and identifiable, together with the above nuclides, shall also be identified and reported.
- * Sampling of this flow is not required if, at least once per 31 days, condensate monitor tank bypass valve, SA 1415-2 $\frac{1}{2}$ "-200, is verified locked shut.
- # Administrative controls shall provide for composite sampling of the continuous releases per note b vice note c until January 1, 1983. Continuous proportional sampling shall be in accordance with note c from January 1, 1983 and all times subsequent as required by Table 4.11-1.
- ## Administrative controls shall provide for composite sampling of the continuous releases per note b vice note c until January 1, 1984. Continuous proportional sampling shall be in accordance with note c from January 1, 1984 and all time subsequent as required by Table 4.11-1.
- ** Sampling of this flow is not required if at least once per 31 days blowdown bypass isolation valve (S31301MU618 for Steam Generator E088 and S31301MU619 for Steam Generator E089) is verified locked shut.

NOV 15 1982

DESCRIPTION OF PROPOSED CHANGES NPF-10-68
AND NPF-15-68 AND SAFETY ANALYSIS

This is a request to revise Technical Specification 3/4.7.5 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM.

Existing Specifications

Unit 2: See Attachment A

Unit 3: See Attachment C

Proposed Specifications

Unit 2: See Attachment B

Unit 3: See Attachment D

Reason for Proposed Change

The Proposed Change is requested to allow increased Control Room Emergency Air Cleanup System (CREACUS) air flow in order to demonstrate control room positive pressure requirements.

The requested exception to the provisions of Specification 3.0.4 will minimize the potential for future "emergency" requests for relief from, or changes to, Technical Specification 3/4.7.5 and will minimize further disruption of the startup test program.

Safety Analysis

The proposed change allows changes in the CREACUS which increases its ability to meet the recommendations of Regulatory Guides 1.78 and 1.95. Specifically, the change will allow the system to develop 1/8" water gauge positive control room pressure. Although the increase in air flow allows for increased infiltration in the toxic gas isolation mode, this has been re-analyzed and found to be acceptable. Likewise, the effects of increased air flow on filter efficiency and the adequacy of the existing 4.8 kW heater capacity have been considered and found to be acceptable. The increase in allowable pressure drop across the filters corresponds to the requested increase in air flow.

The purpose of Specification 3.0.4 is to prevent escalation to higher MODES of operation with some redundant equipment or systems "inoperable" or other specific limits being exceeded, even though continued operation in the higher MODE would have been allowed if the problem had been initially discovered while in that MODE. This may, provide some overall reduction to the risk of plant operation to the public health and safety. During normal operation where operation at full power in MODE 1 is maintained for extended periods of time, the cost of disruption to plant operation produced by this approach may be offset by a reduction in risk. However, during initial plant startup, where frequent MODE changes are initiated for test purposes, this approach causes considerable disruption. Delays in the startup program may even increase the risk of plant operation to the public since the plant is operated for extended periods of time prior to obtaining all data needed to verify plant design and operating characteristics. In the case of Specification 3/4.7.5, SCE believes that the overall improvement in risk resulting from the

applicability of Specification 3.0.4 during the startup test program is vague and uncertain and that it does not offset the cost of delays to the startup test program.

Accordingly, it is concluded that: (1) Proposed Changes NPF-10-68 and NPF-15-68 do not present significant hazard considerations not described or implicit in the Final Safety Analysis; (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed changes; and (3) this action will not result in a condition which significantly alters the impact of the station on the environment as described in the NRC Final Environmental Statement.

ATTACHMENT A

PLANT SYSTEMS

3/4.7.5 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.5 Two independent control room emergency air cleanup systems shall be OPERABLE.

APPLICABILITY: ALL MODES

ACTION:

MODES 1, 2, 3 and 4:

With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6:

- a. With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE control room emergency air cleanup system in the recirculation mode.
- b. With both control room emergency air cleanup systems inoperable, or with the OPERABLE control room emergency air cleanup system required to be in the recirculation mode by ACTION (a), not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.
- c. The provisions of Specification 3.0.3 are not applicable in MODE 6.*

SURVEILLANCE REQUIREMENTS

4.7.5 Each control room emergency air cleanup system shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 110°F.
- b. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on.

*Specification 3.0.4 not applicable for initial entry into MODE 6.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:
 - 1. Verifying that with the system operating at a flow rate of 35485 cfm \pm 10% for the air conditioning unit, and 1000# cfm \pm 10% for the ventilation unit and recirculating through the respective HEPA filters and charcoal adsorbers, leakage through the system diverting valves is less than or equal to 1% air conditioning unit and 1% ventilation unit when the system is tested by admitting cold DOP at the respective intake.
 - 2. Verifying that the cleanup system satisfied the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 1000# cfm \pm 10% for the ventilation unit and 35,485 cfm \pm 10% for the air conditioning unit.
 - 3. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
 - 4. Verifying a system flow rate of 1000* cfm \pm 10% for the ventilation unit and 35,485 cfm \pm 10% for the air conditioning unit during system operation when tested in accordance with ANSI N510-1975.
- d. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
- e. At least once per 18 months by:
 - 1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 4.3 inches Water Gauge ventilation unit and less than 7.3 inches Water Gauge air conditioning unit while operating the system at a flow rate of 1000# cfm \pm 10% for the ventilation unit and 35,485 cfm \pm 10% for the air conditioning unit.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that on a control room isolation test signal, the system automatically switches into the emergency mode of operation with flow through the HEPA filters and charcoal adsorber banks.
3. Verifying that on a toxic gas isolation test signal, the system automatically switches into the isolation mode of operation with flow through the HEPA filters and charcoal adsorber banks.
4. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch W.G. relative to the outside atmosphere during system operation in the emergency mode.
5. Verifying that the heaters dissipate $3.2^{**} \text{ kW} \pm 5\%$ when tested in accordance with ANSI N510-1975.
- f. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.95% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of $1000^{\#} \text{ cfm} \pm 10\%$ for the ventilation unit and $35,485 \text{ cfm} \pm 10\%$ for the air conditioning unit.
- g. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of $1000^{\#} \text{ cfm} \pm 10\%$ for the ventilation unit and $35,485 \text{ cfm} \pm 10\%$ for the air conditioning unit.

[#]At completion of design change package DCP-76M, flow rate of the ventilation unit will increase to 1500 cfm (nominal).

^{**}At completion of design change package DCP-76M, heater dissipation will increase to 4.2 kW (Nominal).

ATTACHMENT B

PLANT SYSTEMS

3/4.7.5 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.5 Two independent control room emergency air cleanup systems shall be OPERABLE.

APPLICABILITY: ALL MODES

ACTION:

MODES 1, 2, 3 and 4:

With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6:

- a. With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE control room emergency air cleanup system in the recirculation mode.
- b. With both control room emergency air cleanup systems inoperable, or with the OPERABLE control room emergency air cleanup system required to be in the recirculation mode by ACTION (a), not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.
- c. The provisions of Specification 3.0.3 are not applicable in MODE 6.*

SURVEILLANCE REQUIREMENTS

4.7.5 Each control room emergency air cleanup system shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 110°F.
- b. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on.

*The provisions of Specification 3.0.4 are not applicable until one month after initially achieving 100% power.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:
 - 1. Verifying that with the system operating at a flow rate of 35485 cfm \pm 10% for the air conditioning unit, and 2050 \pm 150 cfm for the ventilation unit and recirculating through the respective HEPA filters and charcoal adsorbers, leakage through the system diverting valves is less than or equal to 1% air conditioning unit and 1% ventilation unit when the system is tested by admitting cold DOP at the respective intake.
 - 2. Verifying that the cleanup system satisfied the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 2050 \pm 150 cfm for the ventilation unit and 35,485 cfm \pm 10% for the air conditioning unit.
 - 3. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
 - 4. Verifying a system flow rate of 2050 \pm 150 cfm for the ventilation unit and 35,485 cfm \pm 10% for the air conditioning unit during system operation when tested in accordance with ANSI N510-1975.
- d. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
- e. At least once per 18 months by:
 - 1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 7.0 inches Water Gauge ventilation unit and less than 7.3 inches Water Gauge air conditioning unit while operating the system at a flow rate of 2050 \pm 150 cfm for the ventilatin unit and 35,485 cfm \pm 10% for the air conditioning unit.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that on a control room isolation test signal, the system automatically switches into the emergency mode of operation with flow through the HEPA filters and charcoal adsorber banks.
3. Verifying that on a toxic gas isolation test signal, the system automatically switches into the isolation mode of operation with flow through the HEPA filters and charcoal adsorber banks.
4. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch W.G. relative to the outside atmosphere during system operation in the emergency mode.
5. Verifying that the heaters dissipate $4.8 \text{ kW} \pm 5\%$ when tested in accordance with ANSI N510-1975.
- f. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.95% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of $2050 \pm 150 \text{ cfm}$ for the ventilation unit and $35,485 \text{ cfm} \pm 10\%$ for the air conditioning unit.
- g. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of $2050 \pm 150 \text{ cfm}$ for the ventilation unit and $35,485 \text{ cfm} \pm 10\%$ for the air conditioning unit.

ATTACHMENT C

PLANT SYSTEMS

3/4.7.5 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.5 Two independent control room emergency air cleanup systems shall be OPERABLE.

APPLICABILITY: ALL MODES

ACTION:

Unit 2 or 3 in MODES 1, 2, 3 or 4:

With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Units 2 and 3 in MODES 5 or 6:

- a. With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE control room emergency air cleanup system in the recirculation mode.
- b. With both control room emergency air cleanup systems inoperable, or with the OPERABLE control room emergency air cleanup system required to be in the recirculation mode by ACTION (a), not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.
- c. The provisions of Specification 3.0.3 are not applicable in MODE 6.*

SURVEILLANCE REQUIREMENTS

4.7.5 Each control room emergency air cleanup system shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 110°F.
- b. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on.

*Specification 3.0.4 not applicable for initial entry into MODE 6.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:
1. Verifying that with the system operating at a flow rate of 35,485 cfm \pm 10% for the air conditioning unit, and 1000# cfm \pm 10% for the ventilating unit and recirculating through the respective HEPA filters and charcoal adsorbers, leakage through the system diverting valves is less than or equal to 1% air conditioning unit and 1% ventilation unit when the system is tested by admitting cold DOP at the respective intake.
 2. Verifying that the cleanup system satisfied the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 1000# cfm \pm 10% for the ventilation unit and 35,485 cfm \pm 10% for the air conditioning unit.
 3. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
 4. Verifying a system flow rate of 1000* cfm \pm 10% for the ventilation unit and 35,485 cfm \pm 10% for the air conditioning unit during system operation when tested in accordance with ANSI N510-1975.
- d. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
- e. At least once per 18 months by:
1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 4.3 inches Water Gauge ventilation unit and less than 7.3 inches Water Gauge air conditioning unit while operating the system at a flow rate of 1000# cfm \pm 10% for the ventilatin unit and 35,485 cfm \pm 10% for the air conditioning unit.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that on a control room isolation test signal, the system automatically switches into the emergency mode of operation with flow through the HEPA filters and charcoal adsorber banks.
3. Verifying that on a toxic gas isolation test signal, the system automatically switches into the isolation mode of operation with flow through the HEPA filters and charcoal adsorber banks.
4. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch W.G. relative to the outside atmosphere during system operation in the emergency mode.
5. Verifying that the heaters dissipate $3.2^{**} \text{ kW} \pm 5\%$ when tested in accordance with ANSI N510-1975.
- f. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.95% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of $1000 \pm 10\%$ cfm for the ventilation unit and $35,485 \text{ cfm} \pm 10\%$ for the air conditioning unit.
- g. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of $1000 \pm 10\%$ cfm for the ventilation unit and $35,485 \text{ cfm} \pm 10\%$ for the air conditioning unit.

#At completion of design change package DCP-76M, flow rate of the ventilation unit will increase to 1500 cfm (nominal).

**At completion of design change package DCP-76M, heater dissipation will increase to 4.8 kW (Nominal).

ATTACHMENT D

PLANT SYSTEMS

3/4.7.5 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.5 Two independent control room emergency air cleanup systems shall be OPERABLE.

APPLICABILITY: ALL MODES

ACTION:

Unit 2 or 3 in MODES 1, 2, 3 or 4:

With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Units 2 and 3 in MODES 5 or 6:

- a. With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE control room emergency air cleanup system in the recirculation mode.
- b. With both control room emergency air cleanup systems inoperable, or with the OPERABLE control room emergency air cleanup system required to be in the recirculation mode by ACTION (a), not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.
- c. The provisions of Specification 3.0.3 are not applicable in MODE 6.*

SURVEILLANCE REQUIREMENTS

4.7.5 Each control room emergency air cleanup system shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 110°F.
- b. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on.

*The provisions of Specification 3.0.4 are not applicable until one month after initially achieving 100% power.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:
 - 1. Verifying that with the system operating at a flow rate of 35485 cfm \pm 10% for the air conditioning unit, and 2050 \pm 150 cfm for the ventilation unit and recirculating through the respective HEPA filters and charcoal adsorbers, leakage through the system diverting valves is less than or equal to 1% air conditioning unit and 1% ventilation unit when the system is tested by admitting cold DOP at the respective intake.
 - 2. Verifying that the cleanup system satisfied the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 2050 \pm 150 cfm for the ventilation unit and 35,485 cfm \pm 10% for the air conditioning unit.
 - 3. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
 - 4. Verifying a system flow rate of 2050 \pm 150 cfm for the ventilation unit and 35,485 cfm \pm 10% for the air conditioning unit during system operation when tested in accordance with ANSI N510-1975.
- d. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
- e. At least once per 18 months by:
 - 1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 7.0 inches Water Gauge ventilation unit and less than 7.3 inches Water Gauge air conditioning unit while operating the system at a flow rate of 2050 \pm 150 cfm for the ventilatin unit and 35,485 cfm \pm 10% for the air conditioning unit.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that on a control room isolation test signal, the system automatically switches into the emergency mode of operation with flow through the HEPA filters and charcoal adsorber banks.
3. Verifying that on a toxic gas isolation test signal, the system automatically switches into the isolation mode of operation with flow through the HEPA filters and charcoal adsorber banks.
4. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch W.G. relative to the outside atmosphere during system operation in the emergency mode.
5. Verifying that the heaters dissipate $4.8 \text{ kW} \pm 5\%$ when tested in accordance with ANSI N510-1975.
- f. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.95% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of $2050 \pm 150 \text{ cfm}$ for the ventilation unit and $35,485 \text{ cfm} \pm 10\%$ for the air conditioning unit.
- g. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of $2050 \pm 150 \text{ cfm}$ for the ventilation unit and $35,485 \text{ cfm} \pm 10\%$ for the air conditioning unit.

DESCRIPTION OF PROPOSED CHANGE NPF-10-72 AND SAFETY ANALYSIS

This is a request to revise Technical Specifications 3/4.3.3.7 FIRE DETECTION INSTRUMENTATION and 3/4.7.8.2 SPRAY AND/OR SPRINKLER SYSTEMS.

Existing Specifications

See Attachment "A"

Proposed Specifications

See Attachment "B"

Reason for Proposed Change

The proposed change reflects the addition of (1) fire detectors to fire zones 11, 28, 45, 62, 72 and the Technical Support Center (TSC); and (2) a deluge water spray system to the Auxiliary Feedwater Pump Room. Such additions are implemented as a result of commitments made relating to License condition 2.C.(14)c of the SONGS 2 Operating License.

Safety Analysis

The additional of fire protection equipment reflected in the proposed change make the configuration of the plant more conservative, from a fire protection standpoint, than is required by the existing Specifications.

Accordingly, it is concluded that: (1) Proposed Change NPF-10-72 does not present significant hazard considerations not described or implicit in the Final Safety Analysis; (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change; and (3) this action will not result in a condition which significantly alters the impact of the station or the environment as described in the NRC Final Environmental Statement.

PS:7270

TABLE 3.3-11 (Continued)

Zone	Instrument Location	Early Warning			Actuation		
		HEAT	FLAME	SMOKE	HEAT	FLAME	SMOKE
11	<u>S.E.B. Roof and Main Steam Relief Valves</u>	None					
12	<u>Control Building Elev 50'</u>						
	Cable Riser Gallery Rm 305				3	42	
	Cable Riser Gallery Rm 315				3	40	
13A	<u>Control Building Elev 30'</u>						
	Emgy. HVAC Unit Rm 309A	1					
135	<u>Control Building Elev 50'</u>						
	Emgy. HVAC Unit Rm 309B	1					
14	<u>Radwaste Elev 24'</u>						
	Boric Acid Makeup Tank Rm 204B	None					
	Boric Acid Makeup Tank Rm 204A	None					
15	<u>Control Building Elev 50'</u>						
	ESF Switchgear Rm 308A				2		
	ESF Switchgear Rm 308B				2		
16	<u>Radwaste Elev 37' & 50'</u>						
	Ion Exchangers	None					
17	<u>Diesel Generator Building</u>						
	Train A				3	4	
	Train B				3	4	
18	<u>Diesel Fuel Oil Storage Tank</u>						
	<u>Underground Vaults</u>	None					
20	<u>Condensate Storage Tank T-121</u>	None					
21	<u>Nuclear Storage Tank T-104</u>	None					
22	<u>Auxiliary Feedwater Pump Room</u>				2	6	
23	<u>Fuel Handling Bldg Elev 30'</u>						
	Spent Fuel Pools Heat Exchange Room 209	None					
28	<u>Penetration Elev. 30'</u>	2					

TABLE 3.3-11 (Continued)

Zone	Instrument Location	Early Warning			Actuation		
		HEAT	FLAME	SMOKE	HEAT	FLAME	SMOKE
43	<u>Control Building Elev 9'</u> Emgy. Chiller Rm 115 Emgy. Chiller Rm 117			2 2			
44	<u>Intake Structure</u> Pump Rm T2-106 Pump Rm T3-106			4 4			
45	<u>Penetration Area Elev 9' & 15'</u> Piping Penetration Area 15'	None					
48	<u>Safety Equipment Building 9'</u> CCW HX and Piping Rm 022-025	None					
50	<u>Radwaste Elev 9'</u> Charging Pump Rms 106A-F			6			
51	<u>Radwaste Elev 9'</u> Boric Acid Makeup Tank Rms 105A-D	None					
53	<u>Electrical Tunnel Elev 9'6", 11'6", (-) 2'6"</u>			21	54		
54	<u>Safety Equipmt Bldg Elev 15'6" & 8'</u> Shutdown HX Rms 003, 004, 015, 018	None					
55	<u>Safety Equipmt Bldg Elev 8'</u> Chemical Storage Tank Rm 019			1			
56	<u>Safety Equipmt Bldg Elev 8'</u> Component Cooling Water Surge Tank Rms 020, 021	None					
57	<u>Safety Equipmt Bldg Elev 15'6"</u> Pump Rm 005			1			
58	<u>Radwaste Elev 37'</u> Reactor Trip System Rms 308A-D, 309-A-C			9			
59	<u>Safety Equipmt Bldg Elev 15'6"</u> Pump Rm 001			1			

TABLE 3.3-11 (Continued)

Zone	Instrument Location	Early Warning			Actuation		
		HEAT	FLAME	SMOKE	HEAT	FLAME	SMOKE
60	<u>Safety Eqpmt Bldg Elev 15'6"</u> <u>Pump Rm 015</u>			1			
61	<u>Safety Eqpmt Bldg Elev 15'6"</u> <u>Component Cooling Water Pump</u> <u>Rms 006, 007, 008</u>			3			
62	<u>Radwaste Elev 50'</u> <u>Volume Control Valve Rooms</u>	None					
63	<u>Control Building Elev 50'</u> <u>Corridor</u>			12			
64	<u>Control Building Elev 50'</u> <u>Vital Power Distribution</u> <u>Rms 310A-H</u>			8			
65	<u>Control Building Elev 50'</u> <u>Battery Rms 306B-J</u>			8			
66	<u>Control Building Elev 50'</u> <u>Evacuation Rm 311</u>			1			
67	<u>Radwaste Elev 63'6"</u> <u>Cable Riser Gallery Rm 506A</u> <u>Cable Riser Gallery Rm 506B</u>	2			4		
		2			4		
68	<u>Penetration 9' - 63'6"</u> <u>Cable Riser Shaft</u>			1	21		
69	<u>Safety Eqpmt Bldg Elev 5'3"</u> <u>Salt Water Cooling Piping Rm 010</u>	None					
70	<u>Radwaste Elev 24'</u> <u>Duct Shaft Rms 222A,B</u>	None					
72	<u>Control Building Elev 70'</u> <u>Corridor 401</u>	None					
75	<u>Refueling Water Storage Tank</u> <u>T-005</u>	None					
76	<u>Refueling Water Storage Tank</u> <u>T-006</u>	None					

TABLE 3.3-11 (Continued)

Zone	Instrument Location	Early Warning			Actuation		
		HEAT	FLAME	SMOKE	HEAT	FLAME	SMOKE
78	<u>Control Building Elev 9'</u> <u>Corridor Rm 105</u>			4			
79	<u>Control Building Elev 50'</u> <u>ESF Switchgear Rm 302A</u> <u>ESF Switchgear Rm 302B</u>			2 2			
80	<u>Radwaste Elev 37' & 50'</u> <u>Duct Shaft Rms</u>	None					
81	<u>Radwaste Elev 63'6"</u> <u>Duct Shaft Rms 527A,B</u>	None					
83	<u>Salt Water Cooling Tunnel</u>			6*			
84	<u>Safety Equipmt Bldg Elev 8'</u> <u>HVAC Rm 017</u>			3			

*3 in UNIT 2, 3 in UNIT 3

TABLE 3.7-5

Safety Related Spray and/or Sprinkler Systems

<u>Hazard</u>	<u>Location</u>	<u>No. of Systems</u>	<u>System Type</u>
Reactor Coolant Pumps	Containment	4	Deluge-Water Spray
R.R. Tunnel	Fuel Hand. Bldg.	1	Wet Pipe
Truck Ramp	Radwaste Bldg.	1	Wet Pipe
Cable Tunnel	Section 1	1	Deluge-Water Spray
Cable Tunnel	Section 2	1	Deluge-Water Spray
Cable Tunnel	Section 3	1	Deluge-Water Spray
Cable Tunnel	Section 4	1	Deluge-Water Spray
Cable Tunnel	Section 5	1	Deluge-Water Spray
Cable Tunnel	Section 6	1	Deluge-Water Spray
Cable Tunnel	Section 7	1	Deluge-Water Spray
Cable Tunnel	Section 8	1	Deluge-Water Spray
Cable Tunnel	Section 9	1	Deluge-Water Spray
Cable Tunnel	Section 10	1	Deluge-Water Spray
Cable Tunnel Riser	Fuel Hand. Bldg.	1	Deluge-Water Spray
Cable Gallery	Radwaste Bldg.	1	Deluge-Water Spray
Cable Risers El. 9 ft.	Control Bldg.	2*	Deluge-Water Spray
Cable Risers El. 30 ft.	Control Bldg.	2*	Deluge-Water Spray
Cable Risers El. 50 ft.	Control Bldg.	2*	Deluge-Water Spray
Cable Risers El. 70 ft.	Control Bldg.	2*	Deluge-Water Spray
Cable Spreading Room	Control Bldg.	2*	Deluge-Water Spray
		4*	Deluge-Water Spray
Emergency A.C. Unit - Train A	Fuel Handling Bldg.	1**	Deluge-Water Spray
Emergency A.C. Unit - Train B	Fuel Handling Bldg.	1**	Deluge-Water Spray
Diesel Generator	DG Building	2	Pre-action Sprinkler
HVAC Room 309A; Corridor 303	Control Bldg. 50'	1	Wet Pipe
Auxiliary Feedwater Pump Room	Tank Bldg. 30'	1	Pre-action Sprinkler
Fan Room 233 and Corridor 234	Control Bldg. 30'	1	Wet Pipe
Salt Water Cooling Pumps and Salt Water Cooling Tunnel	Intake Structure	1	Wet Pipe
CCW Heat Exchangers and Piping Room; A/C Room 017	Safety Equipment Bldg.	1	Wet Pipe
Corridor 401	Control Bldg. 70'	1	Wet Pipe
Corridor 105	Control Bldg. 9'	1	Wet Pipe

*One half of these systems are designated Unit 3, but are required to be OPERABLE for Unit 2 operation.

**Charcoal filter deluge systems are manually actuated.

ATTACHMENT "B"

TABLE 3.3-11 (Continued)

Zone	Instrument Location	Early Warning			Actuation		
		HEAT	FLAME	SMOKE	HEAT	FLAME	SMOKE
11	<u>S.E.B. Roof and Main Steam Relief Valves</u>				2(Note 1)		
12	<u>Control Building Elev 50'</u>						
	Cable Riser Gallery Rm 305				3	42	
	Cable Riser Gallery Rm 315				3	40	
13A	<u>Control Building Elev 30'</u>						
	Emgy. HVAC Unit Rm 309A			1			
13B	<u>Control Building Elev 50'</u>						
	Emgy. HVAC Unit Rm 309B			1			
14	<u>Radwaste Elev 24'</u>						
	Boric Acid Makeup Tank Rm 204B			None			
	Boric Acid Makeup Tank Rm 204A			None			
15	<u>Control Building Elev 50'</u>						
	ESF Switchgear Rm 308A				2		
	ESF Switchgear Rm 308B				2		
16	<u>Radwaste Elev 37' & 50'</u>						
	Ion Exchangers			None			
17	<u>Diesel Generator Building</u>						
	Train A				3	4	
	Train B				3	4	
18	<u>Diesel Fuel Oil Storage Tank</u>						
	<u>Underground Vaults</u>			None			
20	<u>Condensate Storage Tank T-121</u>			None			
21	<u>Nuclear Storage Tank T-104</u>			None			
22	<u>Auxiliary Feedwater Pump Room</u>				2	9	6
					(Note 2)		
23	<u>Fuel Handling Bldg Elev 30'</u>						
	Spent Fuel Pools Heat Exchange Room 209			None			
28	<u>Penetration Elev. 30'</u>			2	8(Note 1)		

TABLE 3.3-11 (Continued)

Zone	Instrument Location	Early Warning			Actuation		
		HEAT	FLAME	SMOKE	HEAT	FLAME	SMOKE
43	<u>Control Building Elev 9'</u> Emgy. Chiller Rm 115 Emgy. Chiller Rm 117			2 2			
44	<u>Intake Structure</u> Pump Rm T2-106 Pump Rm T3-106			4 4			
45	<u>Penetration Area Elev 9' & 15'</u> Piping Penetration Area 15'				6	(Note 1)	
48	<u>Safety Equipment Building 9'</u> CCW HX and Piping Rm 022-025			None			
50	<u>Radwaste Elev 9'</u> Charging Pump Rms 106A-F				6		
51	<u>Radwaste Elev 9'</u> Boric Acid Makeup Tank Rms 105A-D			None			
53	<u>Electrical Tunnel Elev 9'6".</u> <u>11'6". (-) 2'6"</u>				21	54	
54	<u>Safety Equipmt Bldg Elev 15'6"</u> <u>& 8'</u> Shutdown HX Rms 003, 004, 016, 018			None			
55	<u>Safety Equipmt Bldg Elev 8'</u> Chemical Storage Tank Rm 019				1		
56	<u>Safety Equipmt Bldg Elev 8'</u> Component Cooling Water Surge Tank Rms 020, 021			None			
57	<u>Safety Equipmt Bldg Elev 15'6"</u> Pump Rm 005				1		
58	<u>Radwaste Elev 37'</u> Reactor Trip System Rms 308A-D, 309-A-C				9		
59	<u>Safety Equipmt Bldg Elev 15'6"</u> Pump Rm 001				1		

TABLE 3.3-11 (Continued)

Zone	Instrument Location	Early Warning			Actuation		
		HEAT	FLAME	SMOKE	HEAT	FLAME	SMOKE
60	<u>Safety Eqpmt Bldg Elev 15'6"</u> Pump Rm 015			1			
61	<u>Safety Eqpmt Bldg Elev 15'6"</u> Component Cooling Water Pump Rms 006, 007, 008			3			
62	<u>Radwaste Elev 50'</u> Volume Control Valve Rooms			2 (Note 1)			
63	<u>Control Building Elev 50'</u> Corridor			12			
64	<u>Control Building Elev 50'</u> Vital Power Distribution Rms 310A-H			8			
65	<u>Control Building Elev 50'</u> Battery Rms 306B-J			8			
66	<u>Control Building Elev 50'</u> Evacuation Rm 311			1			
67	<u>Radwaste Elev 63'6"</u> Cable Riser Gallery Rm 506A Cable Riser Gallery Rm 506B	2		2	4		4
68	<u>Penetration 9' - 63'6"</u> Cable Riser Shaft			1	21		
69	<u>Safety Eqpmt Bldg Elev 5'3"</u> Salt Water Cooling Piping Rm 010	None					
70	<u>Radwaste Elev 24'</u> Duct Shaft Rms 222A,B			None			
72	<u>Control Building Elev 70'</u> Corridor 401			4 (Note 1)			
75	<u>Refueling Water Storage Tank</u> T-005			None			
76	<u>Refueling Water Storage Tank</u> T-005			None			

TABLE 3.3-11 (Continued)

Zone	Instrument Location	Early Warning			Actuation		
		HEAT	FLAME	SMOKE	HEAT	FLAME	SMOKE
78	<u>Control Building Elev 9'</u> <u>Corridor Rm 105</u>			4			
79	<u>Control Building Elev 50'</u> <u>ESF Switchgear Rm 302A</u> <u>ESF Switchgear Rm 302B</u>			2 2			
80	<u>Radwaste Elev 37' & 50'</u> <u>Duct Shaft Rms</u>	None					
81	<u>Radwaste Elev 63'6"</u> <u>Duct Shaft Rms 527A,B</u>	None					
83	<u>Salt Water Cooling Tunnel</u>			6*			
84	<u>Safety Equip Bldg Elev 8'</u> <u>HVAC Rm 017</u>			3			
Technical Support Center(TSC)		5		1 (Note 1)			
*3 in UNIT 2, 3 in UNIT 3							

Notes

1. On completion of DCP 2-403E
2. On completion of DCP 2-122M

TABLE 3.7-5
Safety Related Spray and/or Sprinkler Systems

<u>Hazard</u>	<u>Location</u>	<u>No. of Systems</u>	<u>System Type</u>
Reactor Coolant Pumps	Containment	4	Deluge-Water Spray
R.R. Tunnel	Fuel Hand. Bldg.	1	Wet Pipe
Truck Ramp	Radwaste Bldg.	1	Wet Pipe
Cable Tunnel	Section 1	1	Deluge-Water Spray
Cable Tunnel	Section 2	1	Deluge-Water Spray
Cable Tunnel	Section 3	1	Deluge-Water Spray
Cable Tunnel	Section 4	1	Deluge-Water Spray
Cable Tunnel	Section 5	1	Deluge-Water Spray
Cable Tunnel	Section 6	1	Deluge-Water Spray
Cable Tunnel	Section 7	1	Deluge-Water Spray
Cable Tunnel	Section 8	1	Deluge-Water Spray
Cable Tunnel	Section 9	1	Deluge-Water Spray
Cable Tunnel	Section 10	1	Deluge-Water Spray
Cable Tunnel Riser	Fuel Hand. Bldg.	1	Deluge-Water Spray
Cable Gallery	Radwaste Bldg.	1	Deluge-Water Spray
Cable Risers El. 9 ft.	Control Bldg.	2*	Deluge-Water Spray
Cable Risers El. 30 ft.	Control Bldg.	2*	Deluge-Water Spray
Cable Risers El. 50 ft.	Control Bldg.	2*	Deluge-Water Spray
Cable Risers El. 70 ft.	Control Bldg.	2*	Deluge-Water Spray
Cable Spreading Room	Control Bldg.	2*	Deluge-Water Spray
		4*	Deluge-Water Spray
Emergency A.C. Unit - Train A	Fuel Handling Bldg.	1**	Deluge-Water Spray
Emergency A.C. Unit - Train B	Fuel Handling Bldg.	1**	Deluge-Water Spray
Diesel Generator	DG Building	2	Pre-action Sprinkler
HVAC Room 309A;	Control Bldg. 50'	1	Wet Pipe
Corridor 303			
Auxiliary Feedwater Pump Room	Tank Bldg. 30'	1	Pre-action Sprinkler
Fan Room 233 and Corridor 234	Control Bldg. 30'	1#	Deluge-Water Spray
Salt Water Cooling Pumps and Salt Water Cooling Tunnel	Intake Structure	1	Wet Pipe
CCW Heat Exchangers and Piping Room; A/C Room 017	Safety Equipment Bldg.	1	Wet Pipe
Corridor 401	Control Bldg. 70'	1	Wet Pipe
Corridor 105	Control Bldg. 9'	1	Wet Pipe

*One half of these systems are designated Unit 3, but are required to be OPERABLE for Unit 2 operation.

**Charcoal filter deluge systems are manually actuated.

On completion of DCP 2-122M.
SAN ONOFRE-UNIT 2

3/4 7-31

Amendment No. 7

SEP 7 1982

DESCRIPTION OF PROPOSED CHANGES NPF-10-73 AND NPF-15-73 AND SAFETY ANALYSIS

This is a request to revise Technical Specification 3/4.3.3.1, Table 3.3-6, RADIATION MONITORING ALARM INSTRUMENTATION.

Existing Specifications:

Unit 2: See Attachment "A"

Unit 3: See Attachment "C"

Proposed Specifications:

Unit 2: See Attachment "B"

Unit 3: See Attachment "D"

Reason for Proposed Change

Each of the containment high range monitors RT 7820-1 and RT 7820-2 are provided with a 1 R/hr check source. The detector is continuously exposed to this source so that the instrument can detect circuit and down scale failures. The alarm setpoint is currently 2 R/hr. Accounting for instrument uncertainty, drift and difficulty in adjusting this setpoint because it is in the bottom half of the lowest decade of the 8 decades of instrument range, the actual difference between the 1 R/hr check source and the 2 R/hr setpoint is small. This has resulted in almost continuous alarms during Unit 2 operation. The proposed change increases the alarm setpoint to 10 R/hr which will alleviate this situation.

Safety Analysis

The in-containment high range monitors were installed to satisfy NUREG-0737 requirements. Their function is to provide a reasonable assessment of area radiation conditions inside containment following an accident in which a significant number of fuel failures had occurred. With the proposed setpoint of 10 R/hr, the instrument will alarm in such an accident scenario. NUREG-0737 places no alarm requirements on the in-containment high range monitors and they are not relied upon to indicate the occurrence of an accident. The proposed change of the alarm setpoint to 10 R/hr therefore has no effect on the primary function of the in-containment high range monitors.

Accordingly, it is concluded that: (1) Proposed Changes NPF-10-73 and NPF-15-73 do not present significant hazard considerations not described or implicit in the Final Safety Analysis; (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change; and (3) this action will not result in a condition which significantly alters the impact of the station or the environment as described in the NRC Final Environmental Statement.

NPF-10-73
NPF-15-73

ATTACHMENT "A"

TABLE 3.3-6

RADIATION MONITORING ALARM INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. Area Monitors					
a. Containment - High Range	2	1, 2, 3 4	2 R/hr 2 R/hr	1-10 ⁸ R/hr	18 19
b. Containment - Purge Isolation	1	1, 2, 3, 4 6	< 325 mR/hr #	10 ⁻¹ -10 ⁵ mR/hr	19 (a)
c. Main Steam Line	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					
i. Gaseous	1	*	#	10 ¹ -10 ⁷ cpm	(d)
ii. Particulate/Iodine	1	*	#	10 ¹ -10 ⁷ cpm	(d)
b. Containment Airborne					
i. Gaseous	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(b)(c)
ii. Particulate	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(b)(c)
iii. Iodine	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(c)
c. Control Room Airborne					
i. Particulate/Iodine	1	All	#	10 ¹ -10 ⁷ cpm	(e)
ii. Gaseous	1	All	#	10 ¹ -10 ⁷ cpm	(e)

SAN ONOFRE-UNIT 2

3/4 3-35

H12.1

NPF-10-73
NPF-15-73

ATTACHMENT "B"

TABLE 3.3-6

RADIATION MONITORING ALARM INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. Area Monitors					
a. Containment - High Range	2	1, 2, 3 4	10 R/hr 10 R/hr	1-10 ⁸ R/hr	18 19
b. Containment - Purge Isolation	1	1, 2, 3, 4 6	< 325 mR/hr #	10 ⁻¹ -10 ⁵ mR/hr	19 (a)
c. Main Steam Line	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					
i. Gaseous	1	*	#	10 ¹ -10 ⁷ cpm	(d)
ii. Particulate/Iodine	1	*	#	10 ¹ -10 ⁷ cpm	(d)
b. Containment Airborne					
i. Gaseous	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(b)(c)
ii. Particulate	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(b)(c)
iii. Iodine	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(c)
c. Control Room Airborne					
i. Particulate/Iodine	1	All	#	10 ¹ -10 ⁷ cpm	(e)
ii. Gaseous	1	All	#	10 ¹ -10 ⁷ cpm	(e)

NPF-10-73
NPF-15-73

ATTACHMENT "C"

TABLE 3.3-6

RADIATION MONITORING ALARM INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. Area Monitors					
a. Containment - High Range	2	1, 2, 3 4	2 R/hr 2 R/hr	1-10 ⁸ R/hr	18 19
b. Containment - Purge Isolation	1	1, 2, 3, 4 6	< 325 mR/hr #	10 ⁻¹ -10 ⁵ mR/hr	19 (a)
c. Main Steam Line	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					
i. Gaseous	1	*	#	10 ¹ -10 ⁷ cpm	(d)
ii. Particulate/Iodine	1	*	#	10 ¹ -10 ⁷ cpm	(d)
b. Containment Airborne					
i. Gaseous	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(b)(c)
ii. Particulate	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(b)(c)
iii. Iodine	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(c)
c. Control Room Airborne					
i. Particulate/Iodine	1	All	#	10 ¹ -10 ⁷ cpm	(e)
ii. Gaseous	1	All	#	10 ¹ -10 ⁷ cpm	(e)

NPF-10-73
NPF-15-73

ATTACHMENT "D"

TABLE 3.3-6

RADIATION MONITORING ALARM INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. Area Monitors					
a. Containment - High Range	2	1, 2, 3 4	10 R/hr 10 R/hr	1-10 ⁸ R/hr	18 19
b. Containment - Purge Isolation	1	1, 2, 3, 4 6	< 325 mR/hr #	10 ⁻¹ -10 ⁵ mR/hr	19 (a)
c. Main Steam Line	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					
i. Gaseous	1	*	#	10 ¹ -10 ⁷ cpm	(d)
ii. Particulate/Iodine	1	*	#	10 ¹ -10 ⁷ cpm	(d)
b. Containment Airborne					
i. Gaseous	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(b)(c)
ii. Particulate	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(b)(c)
iii. Iodine	1	All	Per ODCM	10 ¹ -10 ⁷ cpm	(a)(c)
c. Control Room Airborne					
i. Particulate/Iodine	1	All	#	10 ¹ -10 ⁷ cpm	(e)
ii. Gaseous	1	All	#	10 ¹ -10 ⁷ cpm	(e)