

ATTACHMENT 3

PROPOSED TECHNICAL SPECIFICATIONS

Marked-Up Technical Specification Pages,

License Condition 3 G. (DPR-31)

License Condition 3 F. (DPR-41)

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B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 154, are hereby incorporated in the license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

C. Reports

FPL shall issue certain reports to the NRC in accordance with the requirements of the Technical Specifications.

D. Records

FPL shall originate and maintain facility operating records in accordance with the requirements of the Technical Specifications.

E. Steam Generator Inspections

DELETED

F. Physical Security

DELETED

G. Fire Protection

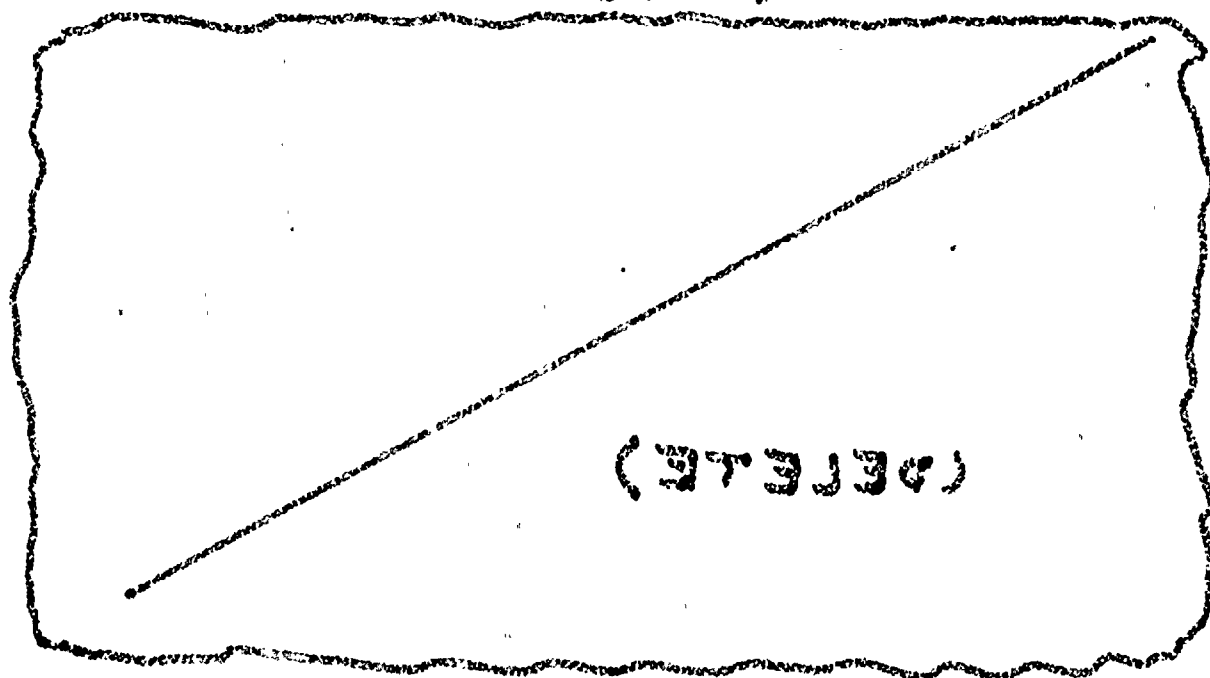
(INSERT A HERE)

The licensee may proceed with and is required to provide a schedule for and to complete the modifications identified in Paragraphs 3.1.1 through 3.1.19 of the NRC's Fire Protection Safety Evaluation, dated March 21, 1979 for the facility. These modifications are to be completed prior to December 1980. If any modifications cannot be completed on schedule the licensee shall submit a report explaining the circumstances together with a revised schedule.

In addition, the licensee shall submit the additional information identified in Sections 3.1 and 3.2 of the related Safety Evaluation in accordance with the schedule contained therein. In the event these dates for submittal cannot be met, the licensee shall submit a report, explaining the circumstances, together with a revised schedule. **(DELETE)**

The licensee is required to develop and implement the administrative controls which are consistent with the licensee's letters of August 28 and November 7, 1978 within three months from the date of this amendment.

(INSERT A TABLE)



(TABLE)

INSERT A

G. Fire Protection

FPL shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report (FSAR) for Turkey Point Units 3 and 4 and as approved in the Safety Evaluation Report (SER) dated March 21, 1979, and supplements thereto subject to the following provision.

The licensee may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.



F. Fire Protection

(INSERT B HERE)

The licensee may proceed with and is required to provide a schedule for and to complete the modifications identified in Paragraphs 3.1.1 through 3.1.19 of the NRC's Fire Protection Safety Evaluation, dated March 21, 1979 for the facility. These modifications are to be completed prior to December 1980. If any modifications cannot be completed on schedule the licensee shall submit a report explaining the circumstances together with a revised schedule.

In addition, the licensee shall submit the additional information identified in Sections 3.1 and 3.2 of the related Safety Evaluation in accordance with the schedule contained therein. In the event these dates for submittal cannot be met, the licensee shall submit a report, explaining the circumstances, together with a revised schedule.

(DELETE)

The licensee is required to develop and implement the administrative controls which are consistent with the licensee's letters of August 28 and November 7, 1978 within three months from the date of this amendment.

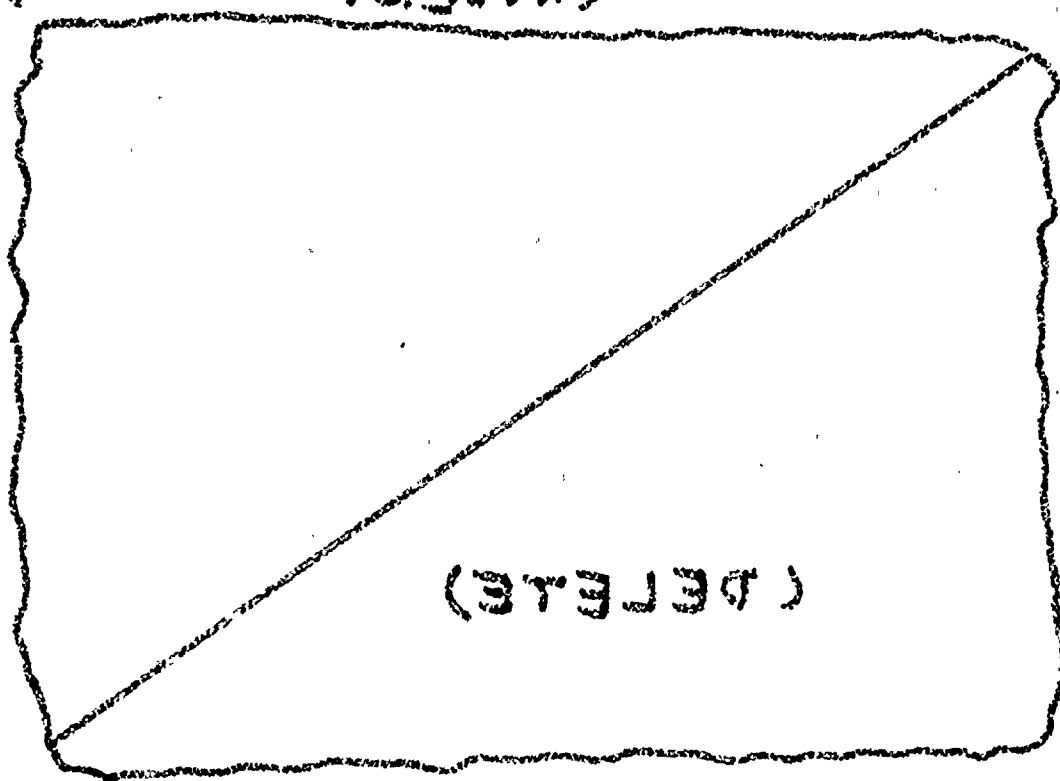
G. Safeguards Contingency Plan

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H. Steam Generator Repair Program

- (1) The Turkey Point Plant steam generator repair program as described in the licensee's "Steam Generator Repair Report" dated September 20, 1977, as supplemented on December 20, March 7, April 25, June 20 and August 4, 1978, January 26, 1979 and March 28, 1980, and the affidavit of A. J. Gould dated June 12, 1981, for Unit No. 4 is approved pursuant to the Atomic Safety and Licensing Board Final Order dated June 19, 1981.

(INSERT HERE)



(DELETE)

INSERT B

F. Fire Protection

FPL shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report (FSAR) for Turkey Point Units 3 and 4 and as approved in the Safety Evaluation Report (SER) dated March 21, 1979, and supplements thereto subject to the following provision.

The licensee may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.



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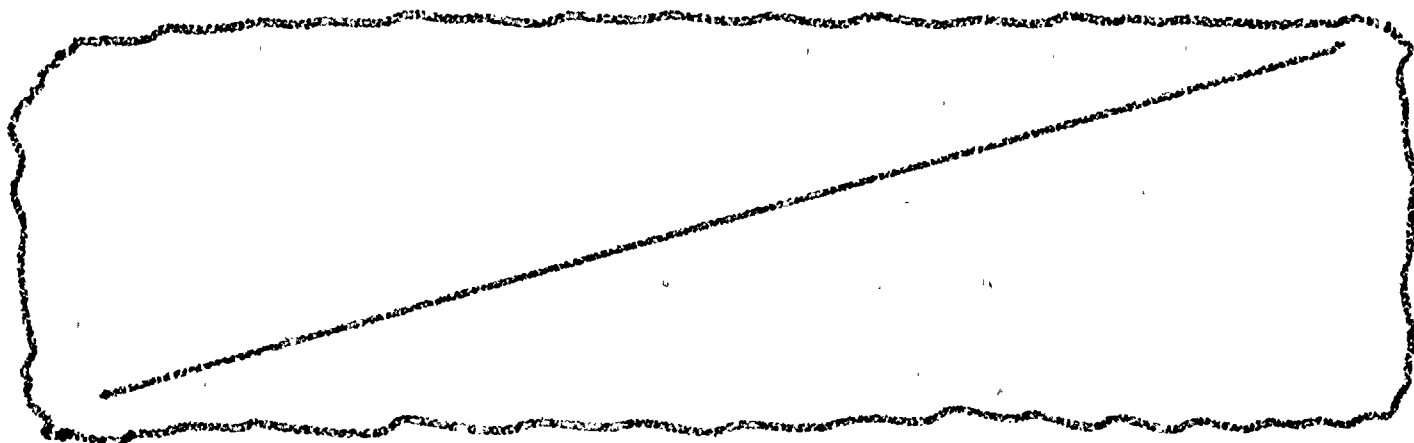
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THESE CHANGES ARE CONSIDERED TO BE A PART OF THE ORIGINAL DESIGN AND SHALL BE CONSIDERED AS SUCH FOR THE PURPOSES OF THE CONTRACT.



INSTRUMENTATION

FIRE DETECTION INSTRUMENTATION

(INSERT)

3/4. 3.3.4 - DELETED

LIMITING CONDITION FOR OPERATION

3.3.3.4 As a minimum, the fire detection instrumentation for each fire detection zone shown in Table 3.3-6 shall be OPERABLE.

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

ACTION:

- a. With any, but not more than one-half the total in any fire zone, Function A fire detection instruments shown in Table 3.3-6 inoperable, restore the inoperable instrument(s) to OPERABLE status within 14 days or within the next 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 that containment zone 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. With more than one-half of the Function A fire detection instruments in any fire zone shown in Table 3.3-6 inoperable, or with any Function B fire detection instruments shown in Table 3.3-6 inoperable, or with any two or more adjacent fire detection instruments shown in Table 3.3-6 inoperable, 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 that containment zone 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).
- c. With the fire watch patrol not established at the 18 foot level of the turbine area, restore the fire watch patrol within one hour, or prepare and submit a Special Report to the Commission within 30 days.
- d. The provisions of Specifications 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.4.1 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 TRIP ACTUATING DEVICE OPERATIONAL TEST. Fire detectors which are not accessible during plant operation shall be demonstrated OPERABLE by the performance of a TRIP ACTUATING DEVICE OPERATIONAL TEST during each COLD SHUTDOWN exceeding 24 hours unless performed in the previous 6 months.

4.3.3.4.2 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.

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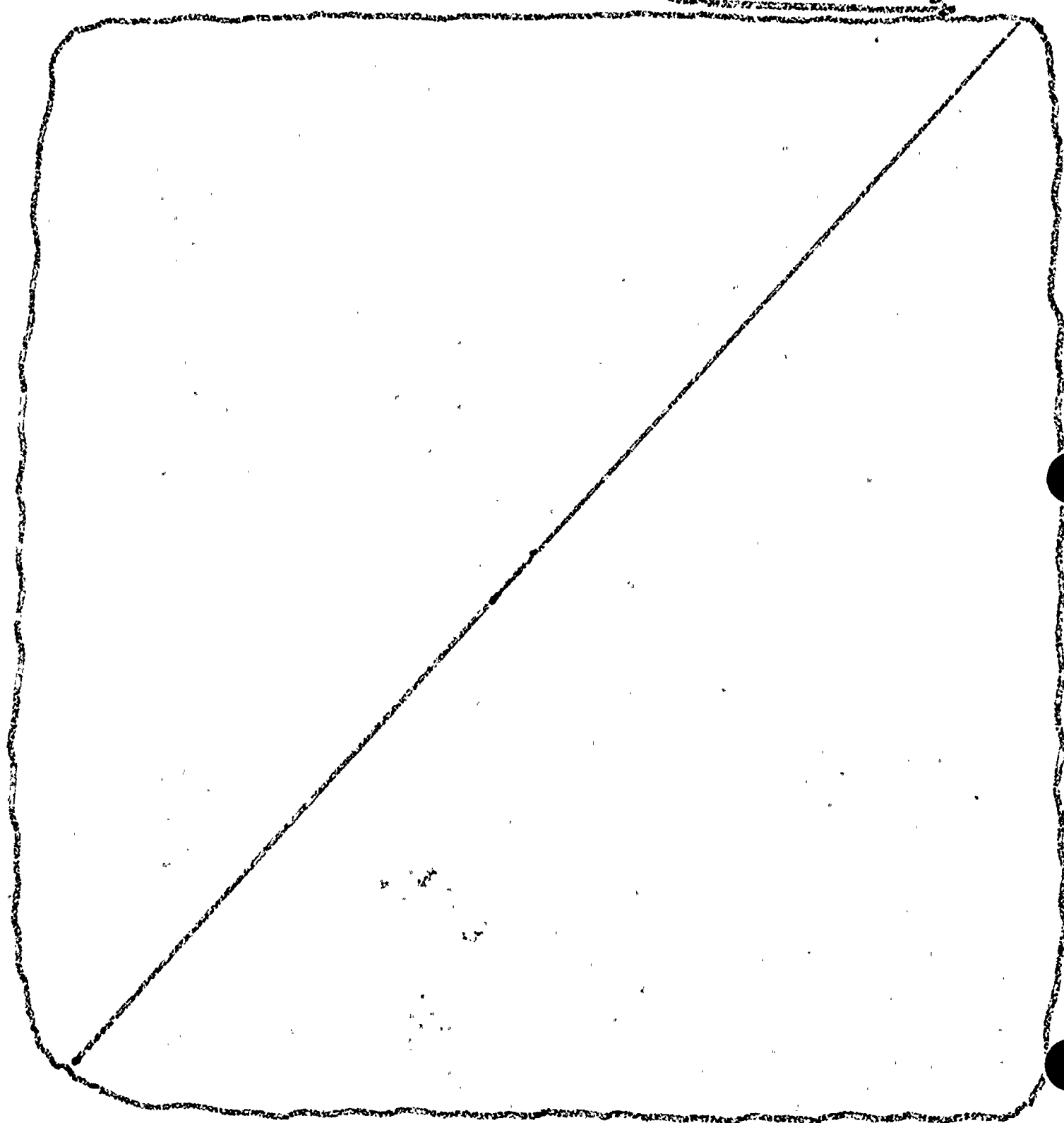


TABLE 3.3-6

FIRE DETECTION INSTRUMENTS
FOR ESSENTIAL EQUIPMENT

<u>INSTRUMENT LOCATION</u>	<u>TOTAL NUMBER OF INSTRUMENTS</u>		
	<u>HEAT</u> <u>(x/y)*</u>	<u>FLAME</u> <u>(x/y)*</u>	<u>SMOKE</u> <u>(x/y)*</u>
FIRE ZONE AREA			
4 - Aux. Bldg. Corridor E. 10'			(2/0)
5 - Chem. Drain/Laundry/Shower Tank Room			(2/0)
9 - Laundry/Chemical Drain Tank Room			(1/0)
10 - Pipeway			(11/0)
11 - Unit 3 RHR Heat Exchanger Room			(5/0)
12 - RHR Pump 3A Room			(2/0)
13 - RHR Pump 3B Room			(2/0)
14 - Unit 4 RHR Heat Exchanger Room			(5/0)
15 - RHR Pump 4A Room			(2/0)
16 - RHR Pump 4B Room			(2/0)
19 - Unit 3 W Elect Penet Room			(5/0)
20 - Unit 3 S Elect Penet Room			(11/0)
21 - Instrument Shop			(2/0)
22 - Radioactive Laboratory			(2/0)
25 - Aux. Bldg. Elect. Equipmt. Room			(6/0)
25A- Spare Battery Room	(2/0)		
26 - Unit 4 N Elect Penet Room			(8/0)
27 - Unit 4 W Elect Penet Room			(6/0)
30 - Unit 4 Piping and Valve Room			(4/0)
40 - Unit 3 Piping and Valve Room			(4/0)
45 - Unit 4 Charging Pump Room	(0/4)		(3/0)
47 - Unit 4 Component Cooling Water Area	(0/4)	(5/2)	
54 - Unit 3 Component Cooling Water Area	(0/4)	(4/2)	
55 - Unit 3 Charging Pump Room	(0/4)		(3/0)
58 - Aux Bldg Corridor, El. 18'			(18/0)
59 - Unit 4 Containment Electrical Penet. Area**			(10/0)
60 - Unit 3 Containment Electrical Penet. Area**			(16/0)
61 - Reactor Control Rod Eqpmt Room - Unit 4			(4/0)
62 - Computer Room			(11/0)
63 - Reactor Control Rod Eqpmt Room - Unit 3			(4/0)
67 - 4160V Switchgear 4B			(10/0)
68 - 4160V Switchgear 4A			(6/0)
70 - 4160V Switchgear 3B			(10/0)
71 - 4160V Switchgear 3A			(6/0)
72 - Diesel Generator 3B	(0/3)	(1/0)	(1/0)
73 - Diesel Generator 3A	(0/3)	(1/0)	(1/0)
74 - Day Tank Room 3B	(1/1)		
75 - Day Tank Room 3A	(1/1)		
76 - Unit 4 Turbine Lube Oil Reservoir	(1/0)		
79A- North-South Breezeway	(0/6)		(4/0)
81 - Unit 4 Main Transformer	(1/0)		
82 - Unit 4 Aux Transformer Area	(1/0)		
84 - Unit 3 and 4 Aux Feedwater Pump Area (DC Enclosure Bldg.)			(3/0)

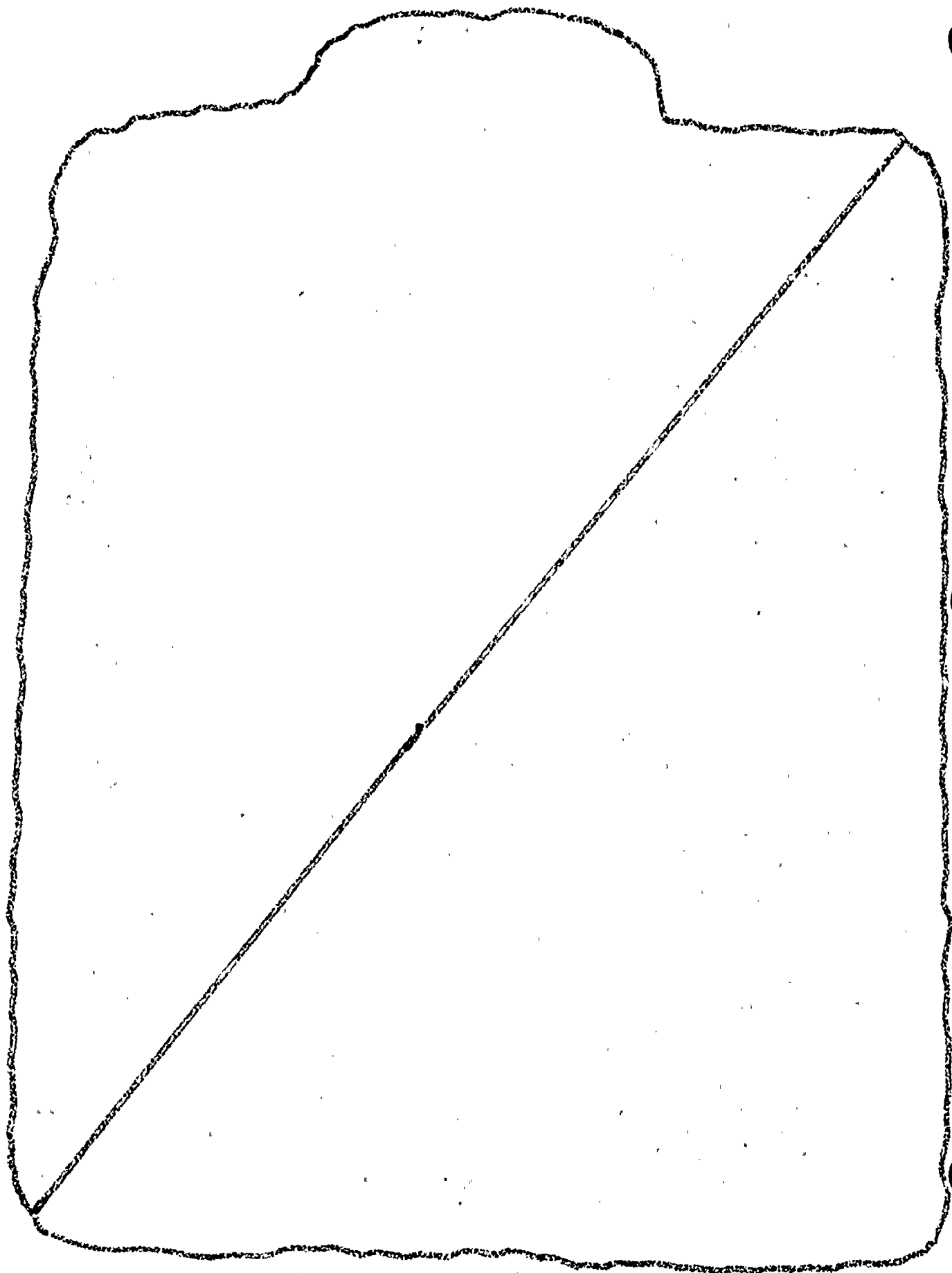


TABLE 3.3-6 (Continued)
FIRE DETECTION INSTRUMENTS
FOR ESSENTIAL EQUIPMENT

<u>INSTRUMENT LOCATION</u>	<u>TOTAL NUMBER OF INSTRUMENTS</u>		
	<u>HEAT</u> <u>(x/y)*</u>	<u>FLAME</u> <u>(x/y)*</u>	<u>SMOKE</u> <u>(x/y)*</u>
FIRE ZONE AREA			
87 - Unit 3 Aux Transformer Area	(1/0)		
93 - 480V Load Center 4A and 4B			(1/0)
94 - 480V Load Center 4C and 4D			(2/0)
95 - 480V Load Center 3A and 3B			(1/0)
96 - 480V Load Center 3C and 3D			(2/0)
97 - Mechanical Equipment Room			(1/0)
98 - Cable Spreading Room			(16/15)
101- RPI Inverter and MG Sets			(1/0)
102- Battery Rack 4B	(1/0)		
103- Battery Rack 3A	(1/0)		
104- RPI Inverter and MG Sets			(2/0)
106- Control Room	(1/0)		(16/0)
108A- Train A Inverters			(3/4)
108B- Train B Inverters			(4/4)
109- Battery Rack 4A	(1/0)		
110- Battery Rack 3B	(1/0)		
113- Unit 4 Feedwater Platform		(2/0)	
116- Unit 3 Feedwater Platform		(2/0)	
119- Unit 4 Intake Cooling Water Pump Area		(4/0)	
120- Unit 3 Intake Cooling Water Pump Area		(4/0)	
132- Control Room Electrical Chase			(1/2)
133- Diesel Generator 4B	(5/5)	(3/0)	(5/0)
134- 4160V Switchgear 3D Room			(2/0)
135- Diesel Generator 4B			
Control Panel Room			(2/0)
136- Diesel Generator 4B			
Fuel Transfer Pump			(2/0)
138- Diesel Generator 4A	(5/5)	(3/0)	(5/0)
139- 4160V Switchgear 4D Room			(2/0)
140- Diesel Generator 4A			
Control Panel Room			(2/0)
141- Diesel Generator 4A			
Fuel Transfer Pump			(2/0)
N/A - 18' level of the Turbine Area	(N/A)#	(N/A)#	(N/A)#

TABLE NOTATIONS

*: x is number of Function A (early warning fire detection and notification only) instruments.
y is number of Function B (actuation of Fire Suppression Systems and early warning fire detection and notification) instruments

** The fire detection instruments located within the containment are not required to be operable during the performance of Type A Containment Leakage Rate Test.

A fire watch patrol shall be established to inspect the 18 foot level of the Turbine Area once each hour.

INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.5 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-7 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The Alarm/Trip Setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION MANUAL (ODCM).

APPLICABILITY: At all times, except as indicated in Table 3.3-7.

ACTION:

- a. With a radioactive liquid effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive liquid effluents monitored by the affected channel or declare the channel inoperable, or change the setpoint so it is acceptably conservative.
- b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-7. Restore the inoperable instrumentation to OPERABLE status within 30 days and, if unsuccessful, explain in the next Semiannual Radioactive Effluent Release Report pursuant to Specification 6.9.1.4 why this inoperability was not corrected in a timely manner.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.5 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST at the frequencies shown in Table 4.3-5.



TABLE 3.3-7

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	1*	35
b.	Steam Generator Blowdown Effluent Line	1**	36
2.	Flow Rate Measurement Devices		
a.	Liquid Radwaste Effluent Line	1*	37
b.	Steam Generator Blowdown Effluent Line	1**/Steam generator	37

*Applicable during liquid effluent releases.

**Applicable during blowdown operations.

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TABLE 3.3-7 (Continued)

TABLE NOTATION

- ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided that prior to initiating a release:
- At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1, and
 - At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge line valving;

Otherwise, suspend release 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 grab samples are analyzed for gross (beta or gamma) radioactivity at a lower limit of detection of no more than 1×10^{-7} microcuries/ml or analyzed isotopically (Gamma) at a lower limit of detection of at least 5×10^{-7} microcuries/ml:
- At least once per 12 hours when the specific activity of the secondary coolant is greater than 0.01 microcuries/gram DOSE EQUIVALENT I-131, or
 - At least once per 24 hours when the specific activity of the secondary coolant is less than or equal to 0.01 microcuries/gram DOSE EQUIVALENT I-131.

- 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 the flow rate is estimated at least once per 4 hours during actual releases. Pump performance curves may be used to estimate flow.



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TABLE 4.3-5

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>ANALOG CHANNEL OPERATIONAL TEST</u>
1. Gross Radioactivity Monitors Providing Alarm and Automatic Termination of Release				
a. Liquid Radwaste Effluents Line	D	P	R(2)	Q(1)
b. Steam Generator Blowdown Effluent Line	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 Effluent Lines	D(3)	N.A.	R	Q

TABLE NOTATIONS

- (1) The ANALOG CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if the instrument indicates measured levels above the Alarm/Trip Setpoint.
- (2) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Institute of Standards and Technology (NIST) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NIST. 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.



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INSTRUMENTATION

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.6 The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3-8 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.11.2.1 and 3.11.2.5 are not exceeded. The Alarm/Trip Setpoints of these channels meeting Specification 3.11.2.1 shall be determined and adjusted in accordance with the methodology and parameters in the ODCM.

APPLICABILITY: As shown in Table 3.3-8

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 or change the setpoint so it is acceptably conservative.
- b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-8. Restore the inoperable instrumentation to OPERABLE status within 30 days and, if unsuccessful explain in the next Semiannual Radioactive Effluent Release Report pursuant to Specification 6.9.1.4 why this inoperability was not corrected in a timely manner.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.6 Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST at the frequencies shown in Table 4.3-6.

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TABLE 3.3-8

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. GAS DECAY TANK SYSTEM			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (Plant Vent Monitor)	1	*	45
b. Effluent System Flow Rate Measuring Device	1	*	46
2. WASTE GAS DISPOSAL SYSTEM (Explosive Gas Monitoring System)			
a. Hydrogen and Oxygen Monitors	1	**	49
3. Condenser Air Ejector Vent System			
a. Noble Gas Activity Monitor (SPING or PRMS)	1	#	47
b. Iodine Sampler	1	##	48
c. Particulate Sampler	1	##	48
d. Effluent System Flow Rate Measuring Device	1	##	46
e. Sampler Flow Rate Measuring Device	1	##	46

TURKEY POINT - UNITS 3 & 4

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AMENDMENT NOS. 137 AND 132

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TABLE 3.3-8 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
4. Plant Vent System (Include Unit 4's Spent Fuel Pool)			
a. Noble Gas Activity Monitor (SPING or PRMS)	1	*	47
b. Iodine Sampler	1	*	48
c. Particulate Sampler	1	*	48
d. Effluent System Flow Rate Measuring Device	1	*	46
e. Sampler Flow Rate Measuring Device	1	*	46
5. Unit 3 Spent Fuel Pit Building Vent			
a. Noble Gas Activity Monitor	1	*	47
b. Iodine Sampler	1	*	48
c. Particulate Sampler	1	*	48
d. Sampler Flow Rate Measuring Device	1	*	46



TABLE 3.3-8 (Continued)

TABLE NOTATION

- * At all times.
- ** During GAS DECAY TANK SYSTEM operation.
- # Applies during MODE 1, 2, 3 and 4.
- ## Applies during MODE 1, 2, 3 and 4 when primary to secondary leakage is detected as indicated by condenser air ejector noble gas activity monitor.

ACTION 45 - 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 release of radioactive effluents via this pathway.

ACTION 46 - 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 4 hours.

ACTION 47 - 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 radioactivity within 24 hours.

ACTION 48 - 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 and analyzed at least weekly.

ACTION 49 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of the GAS DECAY TANK SYSTEM may continue provided that grab samples are collected and analyzed for hydrogen and oxygen concentration at least a) once per 8 hours during degassing operations, and b) once per day during other operations.



TABLE 4.3-6

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>ANALOG CHANNEL OPERATIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
1. GAS DECAY TANK SYSTEM					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (Plant Vent Monitor)	P	P	R(3)	Q(1)	*
b. Effluent System Flow Rate Measuring Device	P	N.A.	R	N.A.	*
2. GAS DECAY TANK SYSTEM (Explosive Gas Monitoring System)					
a. Hydrogen and Oxygen Monitors	D	N.A.	Q(4,5)	M	**
3. Condenser Air Ejector Vent System					
a. Noble Gas Activity Monitor (SPING or PRMS)	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. Effluent System Flow Rate Measuring Device	D	N.A.	R	N.A.	##

TURKEY POINT - UNITS 3 & 4

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AMENDMENT NOS. 137 AND 132



TABLE 4.3-6 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>ANALOG CHANNEL OPERATIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
3. Condenser Air Ejector Vent System (Continued)					
e. Sample Flow Rate Measuring Device	D	N.A.	R	N.A.	##
4. Plant Vent System (Include Unit 4's Spent Fuel Pool)					
a. Noble Gas Activity Monitor (SPING or PRMS)	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. Effluent System Flow Rate Measuring Device	D	N.A.	R	N.A.	*
e. Sampler Flow Rate Measuring Device	D	N.A.	R	N.A.	*

TURKEY POINT - UNITS 3 & 4

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AMENDMENT NOS. 149 AND 144



3/4 3/68

TABLE 4.3-6 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>ANALOG CHANNEL OPERATIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
5. Unit 3 Spent Fuel Pit Building Vent					
a. Noble Gas Activity Monitor	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. Sampler Flow Rate Measuring Device	D	N.A.	R	N.A.	*

TABLE NOTATION

* At all times.

** During GAS DECAY TANK SYSTEM operation.

Applies during MODE 1, 2, 3 and 4.

Applies during MODE 1, 2, 3 and 4 when primary to secondary leakage is detected as indicated by condenser air ejector noble gas activity monitor.

- (1) The ANALOG CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if the instrument indicates measured levels above the Alarm/Trip Setpoint.
- (2) The ANALOG CHANNEL OPERATIONAL TEST shall also demonstrate that if the instrument indicates measured levels above the Alarm Setpoint, alarm annunciation occurs in the control room (for PRMS only) and in the computer room (for SPING only).
- (3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Institute of Standards and Technology (NIST) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NIST. 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.

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82



TABLE 4.3-6 (Continued)

TABLE NOTATIONS (Continued)

- (4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal.
 - a. One volume percent hydrogen, balance nitrogen, and
 - b. Four volume percent hydrogen, balance nitrogen.
- (5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 - a. One volume percent oxygen, balance nitrogen, and
 - b. Four volume percent oxygen, balance nitrogen.



PLANT SYSTEMS

3/4.7.8 FIRE SUPPRESSION SYSTEMS

FIRE WATER SUPPLY AND DISTRIBUTION SYSTEM

LIMITING CONDITION FOR OPERATION

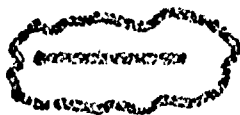
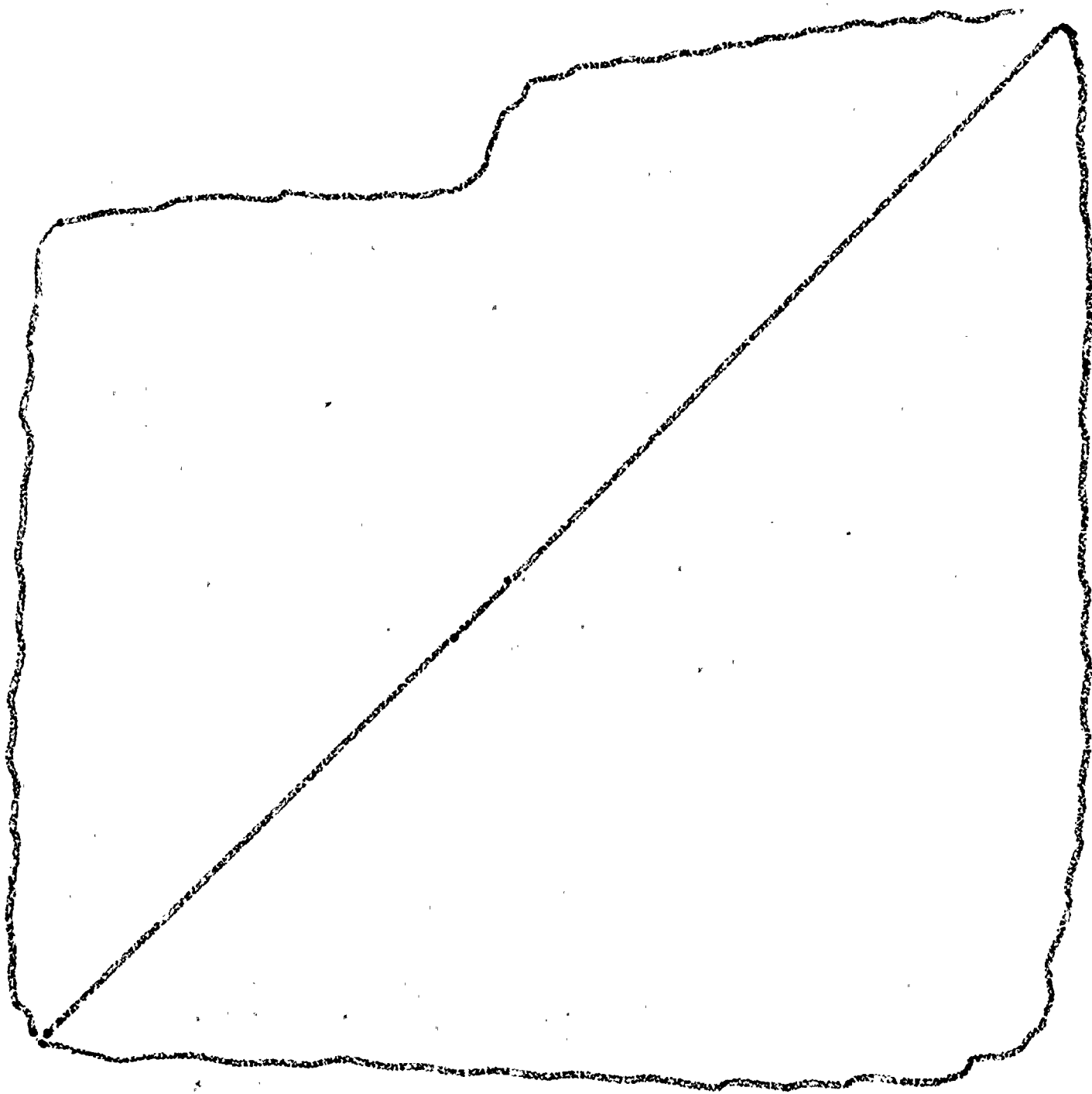
3.7.8.1 The Fire Water Supply and Distribution System shall be OPERABLE with:

- a. At least two fire suppression pumps, one electric driven and one diesel driven with their discharge aligned to the fire suppression header,
- b. Two separate water supplies, each with a minimum contained volume of 300,000 gallons, and
- c. An OPERABLE flow path capable of taking suction from the Raw Water Tank I and Raw Water Tank II and transferring the water through distribution piping with OPERABLE sectionalizing control or isolation valves to the yard hydrant curb valves, the last valve ahead of the water flow alarm device on each sprinkler or hose standpipe, and the last valve ahead of the deluge valve on each Deluge or Spray System required to be OPERABLE per Specifications 3.7.8.2, 3.7.8.3, and 3.7.8.4.

APPLICABILITY: At all times.

ACTION:

- a. With one pump and/or one water supply inoperable, restore the inoperable equipment to OPERABLE status within 7 days or provide an alternate backup pump or supply. The provisions of Specification 3.0.3 are not applicable. This ACTION applies to both units simultaneously.
- b. With the Fire Water Supply and Distribution System otherwise inoperable, establish a backup fire water capability within 24 hours. This ACTION applies to both units simultaneously.

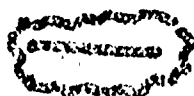
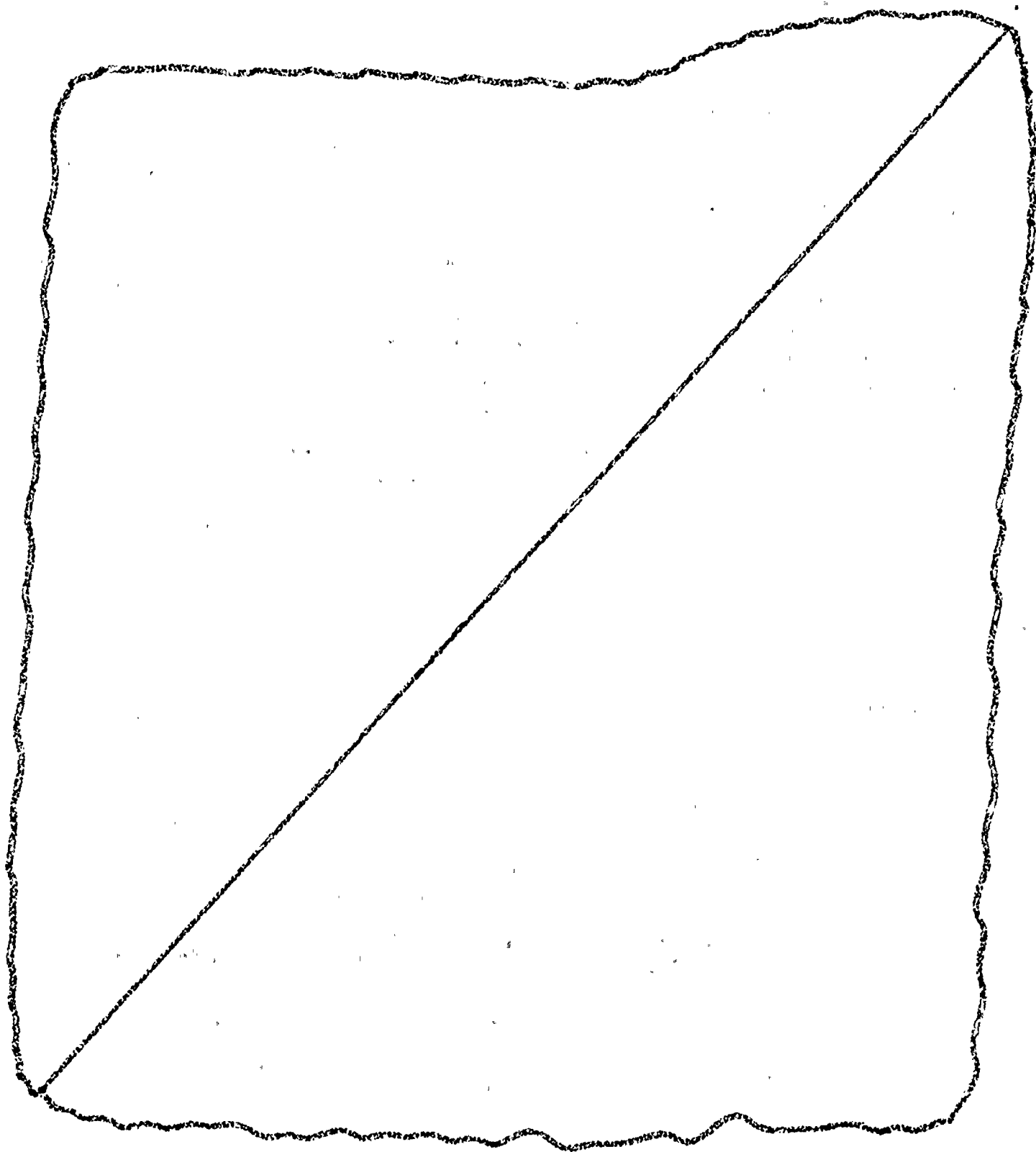


PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.7.8.1.1 The Fire Water Supply and Distribution System shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying the contained water supply volume,
- b. At least once per 31 days by starting the electric motor-driven pump and operating it for at least 15 minutes on recirculation flow,
- c. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path is in its correct position,
- d. At least once per 12 months by performance of a system flush,
- e. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel,
- f. At least once per 18 months by performing a system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:
 - 1) Verifying that each automatic valve in the flow path actuates to its correct position,
 - 2) Verifying that the electric-driven pump develops at least 1880 gpm at a system pressure of 130.2 psig, and the diesel-driven pump develops at least 2350 gpm at a system pressure of 130.2 psig, by verifying 3 points on the pump performance curve.
 - 3) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel, and
 - 4) Verifying that each fire pump starts sequentially to maintain the Fire Water Supply and Distribution System pressure greater than or equal to 125 psig.
- g. At least once per 3 years by performing a flow test of the system in accordance with Chapter 5, Section 11 of the Fire Protection Handbook, 14th Edition, published by the National Fire Protection Association.



PLANT SYSTEMS

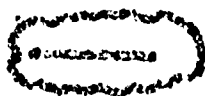
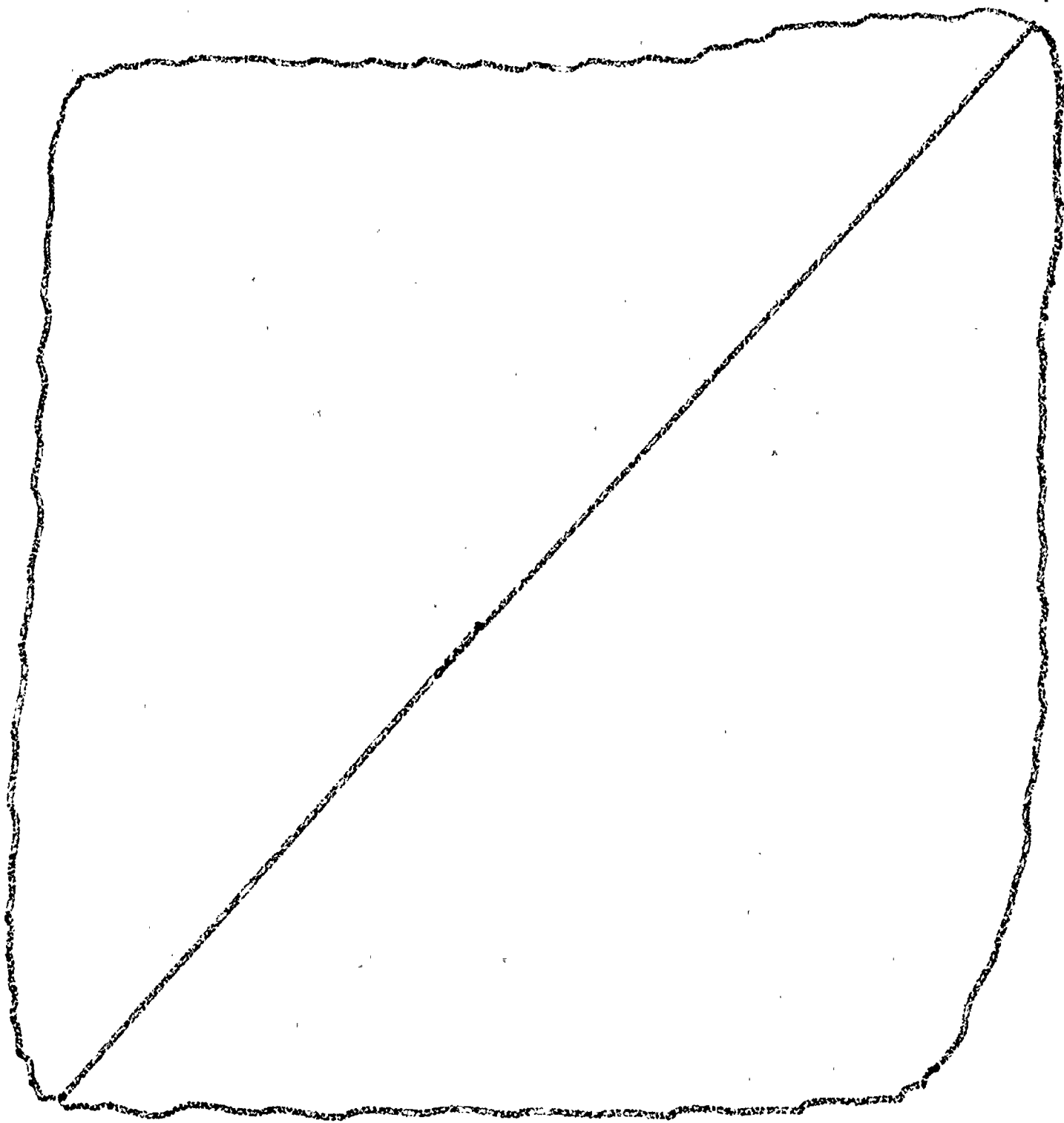
SURVEILLANCE REQUIREMENTS (Continued)

4.7.8.1.2 The fire pump diesel engine shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying:
 - 1) The fuel storage tank contains at least 375 gallons of fuel, and
 - 2) The diesel starts from ambient conditions and operates for at least 30 minutes on recirculation flow.
- b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank, obtained in accordance with ASTM-D270-1975 is within the acceptable limits specified in Table 1 of ASTM D975-1977 when checked for viscosity and water and sediment; and
- c. At least once per 18 months by subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for the class of service.

4.7.8.1.3 The fire pump diesel starting 24-volt battery bank and charger shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying that:
 - 1) The electrolyte level of each battery is above the plates, and
 - 2) The overall battery voltage is greater than or equal to 24 volts.
- b. At least once per 92 days by verifying that the specific gravity is appropriate for continued service of the battery, and
- c. At least once per 18 months by verifying that:
 - 1) The batteries, cell plates, and battery racks show no visual indication of physical damage or abnormal deterioration, and
 - 2) The battery-to-battery and terminal connections are clean, tight, free of corrosion, and coated with anticorrosion material.



PLANT SYSTEMS

SPRAY AND/OR SPRINKLER SYSTEMS

LIMITING CONDITION FOR OPERATION

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

- a. Fire Zones 47 and 54 - Component Cooling Water Areas
- b. Fire Zones 45 and 55 - Charging Pump Rooms
- c. Fire Zones 79A - North - South Breezeway (Unit 3 and Unit 4)
- d. Fire Zones 72, 73, 74 and 75 - Emergency Diesel Generator and Day Tank Rooms (Unit 3)
- e. Fire Zones 133, 136, 138 and 141 - Emergency Diesel Generator and Fuel Transfer Pump Rooms (Unit 4)

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

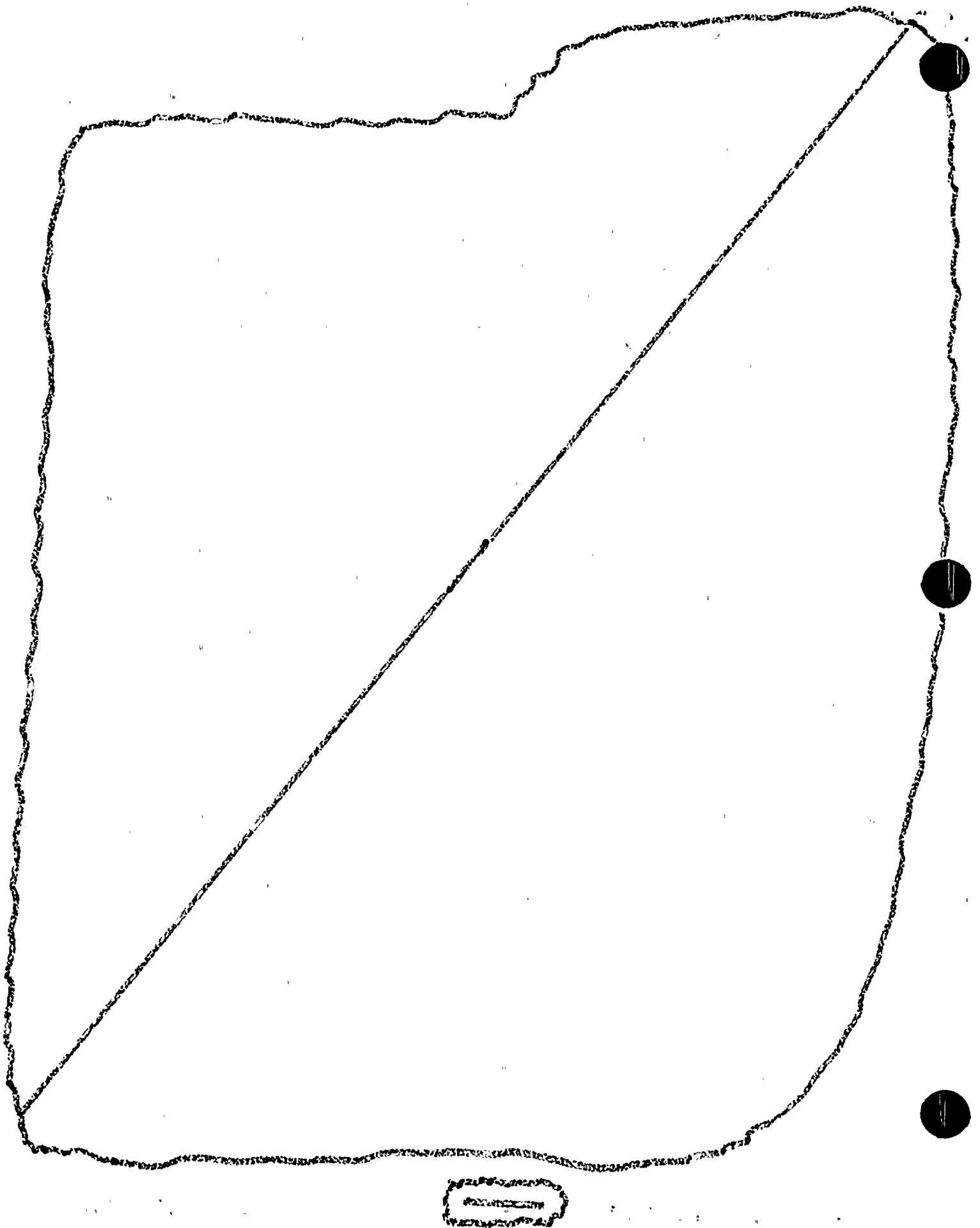
ACTION:

- a. With one or more of the above required Spray and/or Sprinkler Systems inoperable, within 1 hour establish a continuous fire watch with backup fire suppression equipment. This ACTION will apply to both units simultaneously for 3.7.8.2.a.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.8.2 Each of the above required Spray and/or Sprinkler Systems shall be demonstrated OPERABLE:

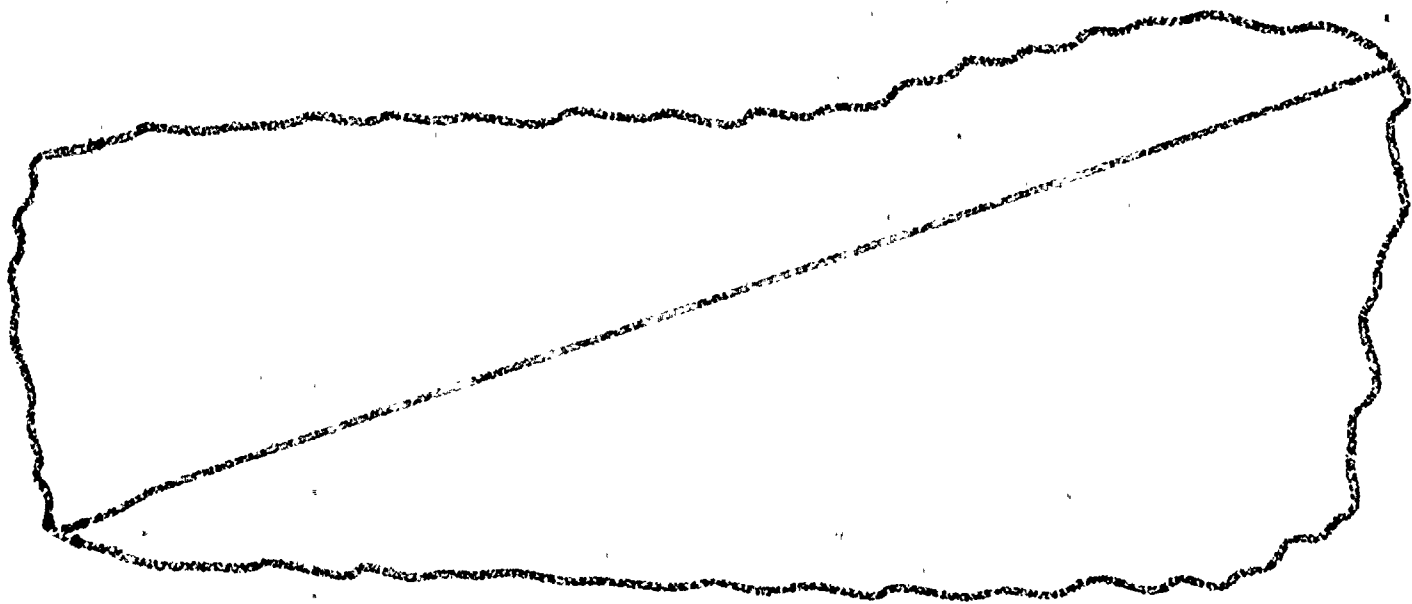
- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path is in its correct position,
- b. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel,
- c. At least once per 18 months:
 - 1) By performing a system functional test which includes simulated automatic actuation of the system, and:
 - a) Verifying that the automatic valves in the flow path actuate to their correct positions on a test signal, and
 - b) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.



PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 2) By a visual inspection of the dry pipe spray and sprinkler headers to verify their integrity; and
 - 3) By a visual inspection of each nozzle's spray area to verify the spray pattern is not obstructed.
- d. At least once per 3 years by performing an air or water flow test through each open head spray/sprinkler header and verifying each open head spray/sprinkler nozzle is unobstructed.



SECRET

FIRE HOSE STATIONS

LIMITING CONDITION FOR OPERATION

3.7.8.3 The fire hose stations given in Table 3.7-4 shall be OPERABLE.

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

ACTION:

- a. With one or more of the fire hose stations given in Table 3.7-4 inoperable, provide an equivalent capacity fire hose from the nearest equivalent OPERABLE water source. The fire hose shall be of a length of hose sufficient to provide coverage for the area left unprotected by the inoperable hose station, and shall be stored in a roll at the outlet of the OPERABLE water supply. The above ACTION requirement shall be accomplished within 1 hour if the inoperable fire hose is the primary means of fire suppression; otherwise route the additional hose within 24 hours. This ACTION applies to both units simultaneously.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

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

- a. At least once per 31 days, by a visual inspection of the fire hose stations accessible during plant operations to assure all required equipment is at the station.
- b. At least once per 12 months, by:
 - 1) Visual inspection of the stations not accessible during plant operations to assure all required equipment is at the station,
 - 2) Removing the hose for inspection and re-racking, and
 - 3) Inspecting all gaskets and replacing any degraded gaskets in the couplings.
- c. At least once per 3 years, by:
 - 1) Partially opening each hose station valve to verify valve OPERABILITY and no flow blockage, and
 - 2) Conducting a hose hydrostatic test at a pressure of 150 psig or at least 50 psig above maximum fire main operating pressure, whichever is greater.

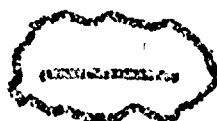
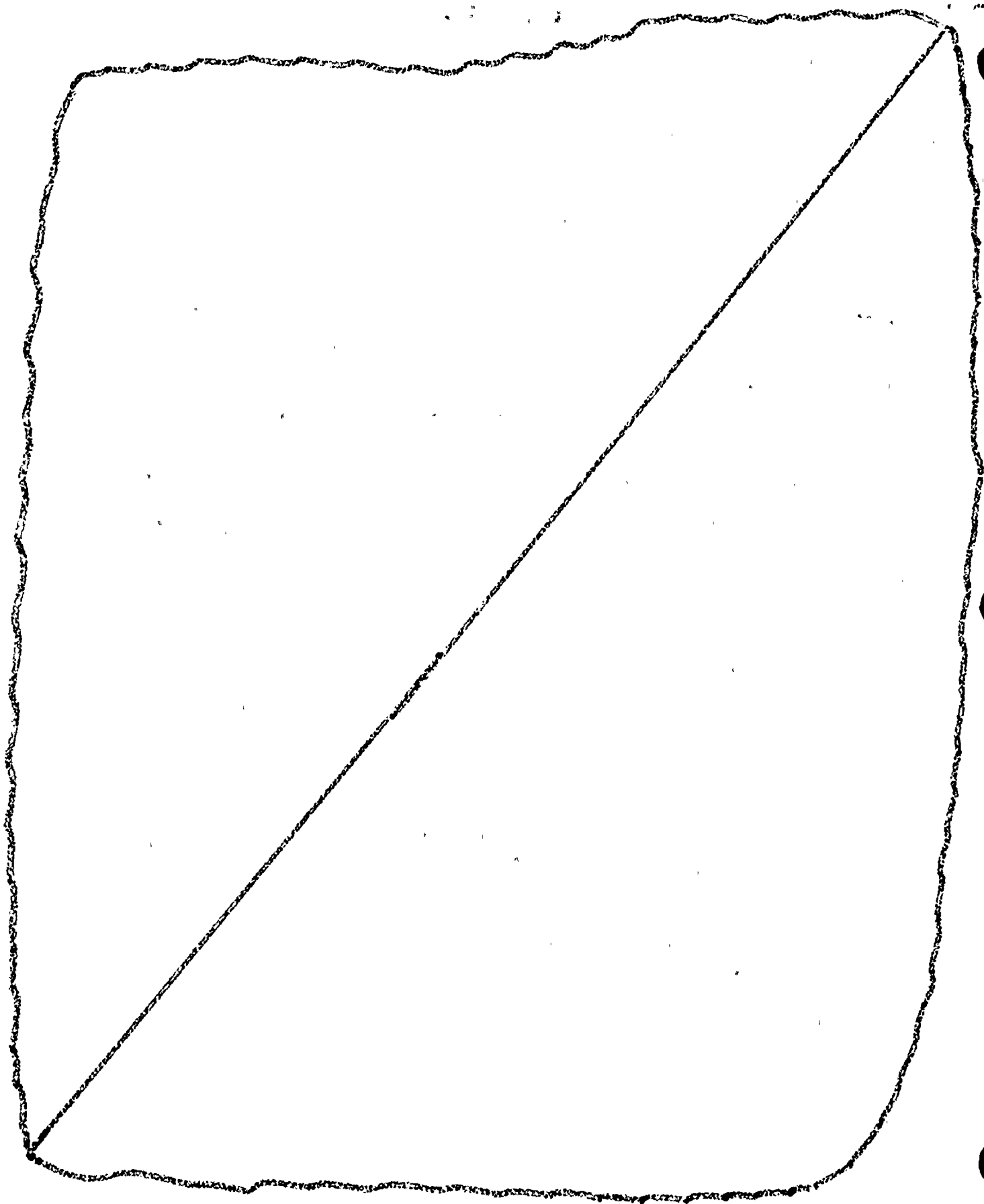
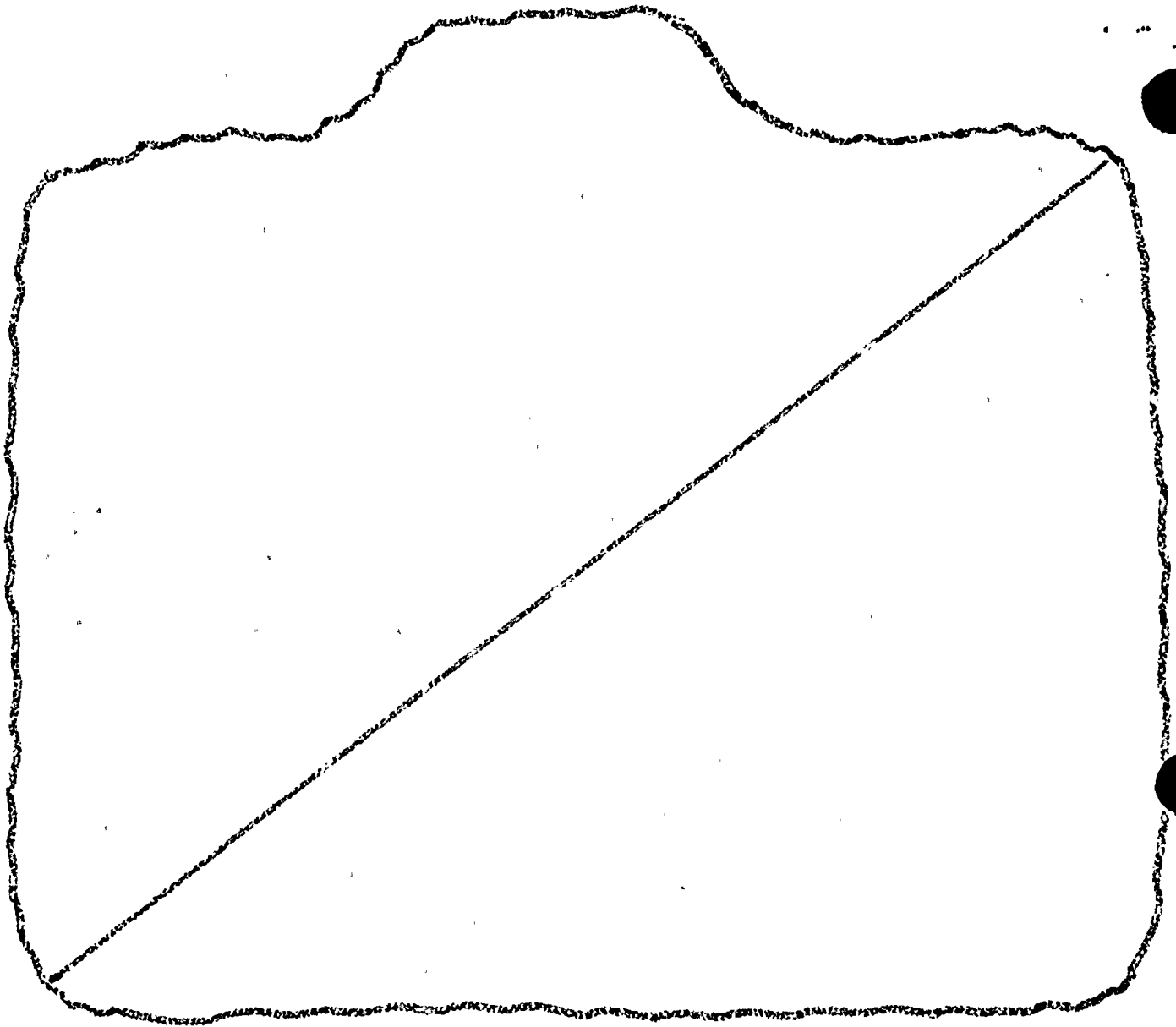


TABLE 3.7-4

FIRE HOSE STATIONS

<u>IDENTIFICATION</u>	<u>LOCATION</u>	<u>FIRE ZONE</u>
HS-03-01	EL. 18' - East of 4160V SWGR Room on Column	88
HS-03-02	EL. 18' - West of 3A Condensate Pump on Pedestal	87
HS-03-03	EL. 18' - Passageway South of SG Feed Pump Room	83
HS-03-04	EL. 30' - East of 480V Load Center on Column	105
HS-03-05	EL. 30' - South End of Mezzanine Deck	105
HS-03-06	EL. 42' - NW End of Turbine Deck	117
HS-03-07	EL. 42' - North of 6A HPFW Heater	117
HS-03-08	EL. 42' - NW Corner of Entrance to Elevator	79
HS-04-01	EL. 18' - South of 4160V SWGR Room on Column	82
HS-04-02	EL. 18' - Passageway South of SG Feed Pump Room	78
HS-04-03	EL. 30' - East of 480V Load Center at Stairway	105
HS-04-04	EL. 30' - South End of Mezzanine Deck	105
HS-04-05	EL. 42' - West End of Turbine Deck	117
HS-04-06	EL. 42' - East Side of Turbine Deck and North of 6A FW Heater	117
HS-04-07	EL. 42' - East Side of Turbine Deck and North of 6B FW Heater	117
HS-04-08	EL. 42' - Southwest Corner of Turbine Deck	117
HS-04-09	EL. 18' - Entrance to Unit 4 Diesel Generator Building	999
HS-AB-01	EL. 18' - East-West Passageway at West End	58
HS-AB-02	EL. 18' - East-West Passageway at East End	58
HS-AB-03	EL. 18' - North-South Passageway Outside Unit 3 Charging Pump Room	58
HS-AB-04	EL. 50' - Roof of Unit 3 New Fuel Storage Area	118
HS-AB-05	EL. 50' - Roof of Unit 4 New Fuel Storage Area	118



SECRET

PLANT SYSTEMS

FIRE HYDRANTS AND HYDRANT HOSE HOUSES

LIMITING CONDITION FOR OPERATION

3.7.8.4 The fire hydrants and associated hydrant hose houses given in Table 3.7-5 shall be OPERABLE.

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

ACTION:

- a. With one or more of the fire hydrants or associated hydrant hose houses given in Table 3.7-5 inoperable, within 1 hour have sufficient additional lengths of 2 1/2 inch diameter hose located in an adjacent OPERABLE hydrant hose house to provide service to the unprotected area(s) if the inoperable fire hydrant or associated hydrant hose house is the primary means of fire suppression; otherwise, provide the additional hose within 24 hours.
- b. The provisions of Specification 3.0.3 and are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.8.4 Each of the fire hydrants and associated hydrant hose houses given in Table 3.7-5 shall be demonstrated OPERABLE:

- a. At least once per 31 days, by visual inspection of the hydrant hose house to assure all required equipment is at the hose house,
- b. At least once per 6 months by visually inspecting each fire hydrant and verifying that the hydrant is not damaged, and
- c. At least once per 12 months by:
 - 1) Conducting a hose hydrostatic test at a pressure of 150 psig or at least 50 psig above maximum fire main operating pressure, whichever is greater,
 - 2) Inspecting all the gaskets and replacing any degraded gaskets in the couplings, and
 - 3) Performing a flow check of each hydrant to verify its OPERABILITY.

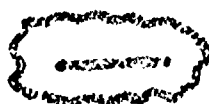
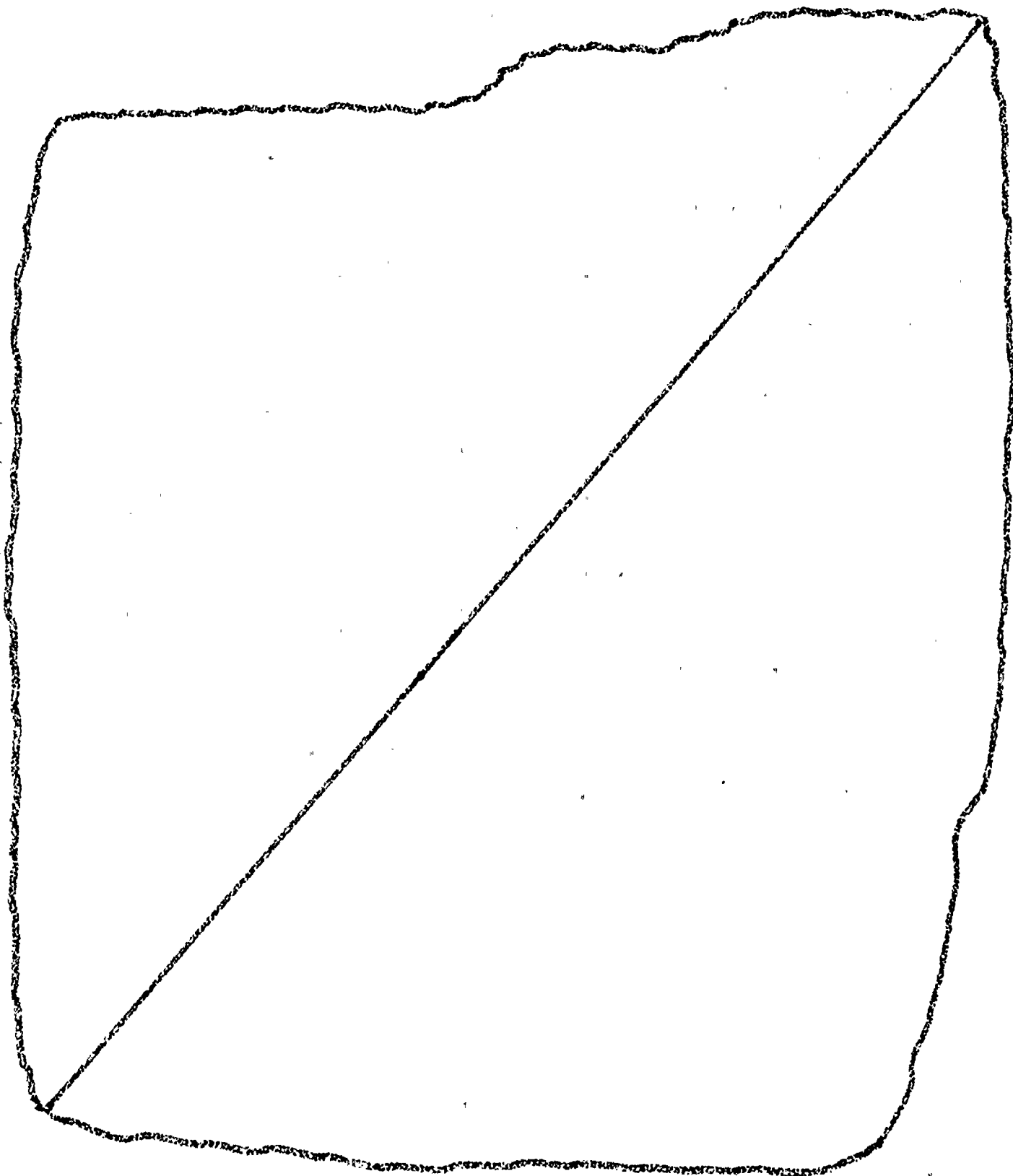
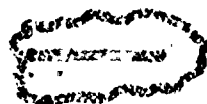
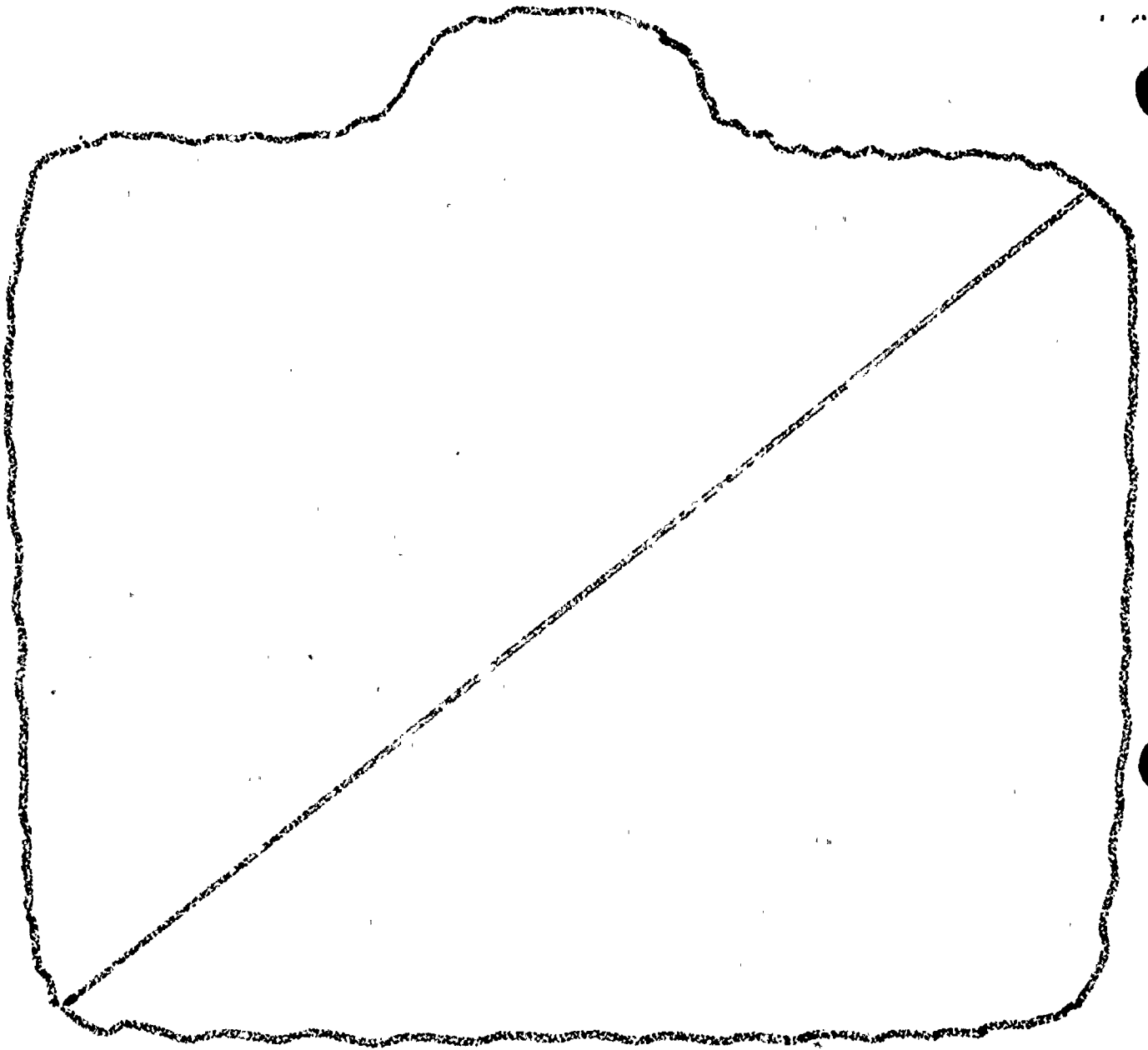


TABLE 3.7-5
FIRE HYDRANTS

<u>IDENTIFICATION</u>	<u>FIRE ZONE</u>	<u>LOCATION</u>	<u>NUMBER OF HYDRANTS</u>
HY-01	124	NE Corner of Unit 3 near Vehicle Gate into RCA	1
HY-07	86	Unit 3 Transformer Area	1
HY-08	81	Unit 4 Transformer Area	1
HY-09	76	Unit 4 Turbine-Generator Area	1
HY-10	77	Unit 4 Condensate Storage Tank Area	1
HY-11	125	SW Corner of Unit 4 near equipment hatch	1
HY-12	NA	Unit 4 New Fuel Storage Area	1
HY-13	123	Refueling Water Storage Area	1
HY-17	NA	Nuclear Dry Storage Area	1
HY-16	NA	Steam Generator Storage Area	1
HY-18	NA	Unit 3 Containment Access Ramp Area	1
HY-26	86	Unit 3 Diesel Generator Building Area	1
TOTAL			<u>18</u>



PLANT SYSTEMS

3/4.7.9 FIRE RATED ASSEMBLIES

LIMITING CONDITION FOR OPERATION

3.7.9 All fire rated assemblies (walls, floor/ceilings, and other fire barriers) separating safety-related fire areas or separating portions of redundant systems important to safe shutdown within a fire area and all sealing devices in fire rated assembly penetrations (fire doors, fire windows, fire dampers, cable, piping, fire barrier penetration seals, and ventilation duct penetration seals) shall be OPERABLE.

APPLICABILITY: At all times.

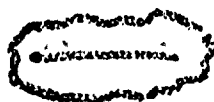
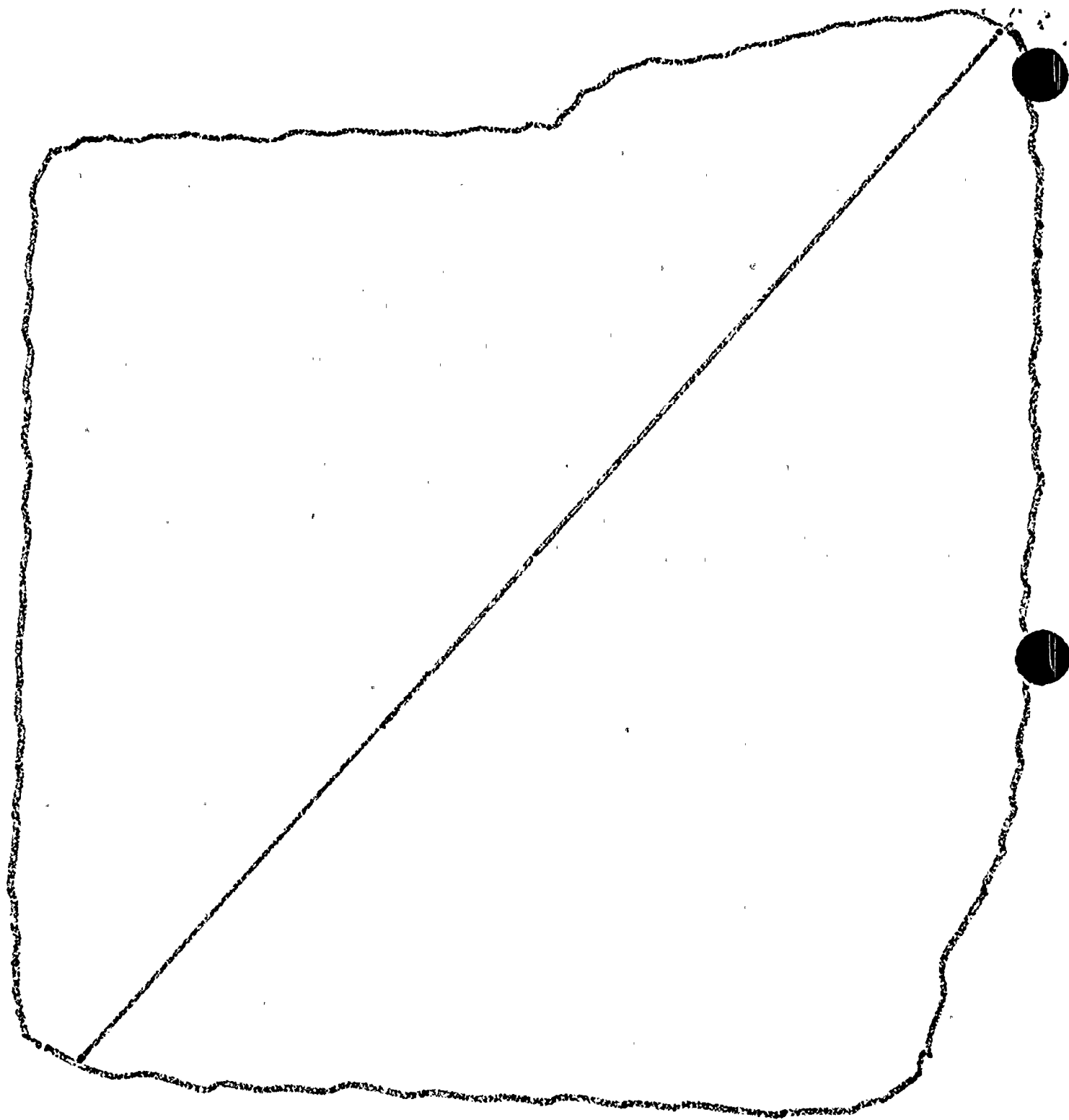
ACTION:

- a. With one or more of the above required fire rated assemblies and/or sealing devices inoperable, within 1 hour either establish a continuous fire watch on at least one side of the affected assembly, or verify the OPERABILITY of fire detectors on at least one side of the inoperable assembly and establish an hourly fire watch patrol.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9.1 At least once per 18 months the above required fire rated assemblies and penetration sealing devices shall be verified OPERABLE by performing a visual inspection of:

- a. The exposed surfaces of each fire rated assembly,
- b. Each fire window/fire damper and associated hardware, and
- c. At least 10% of each type of sealed penetration. If apparent changes in appearance or abnormal degradations are found, a visual inspection of an additional 10% of each type of sealed penetration shall be made. This inspection process shall continue until a 10% sample with no apparent changes in appearance or abnormal degradation is found. Samples shall be selected such that each penetration will be inspected every 15 years.

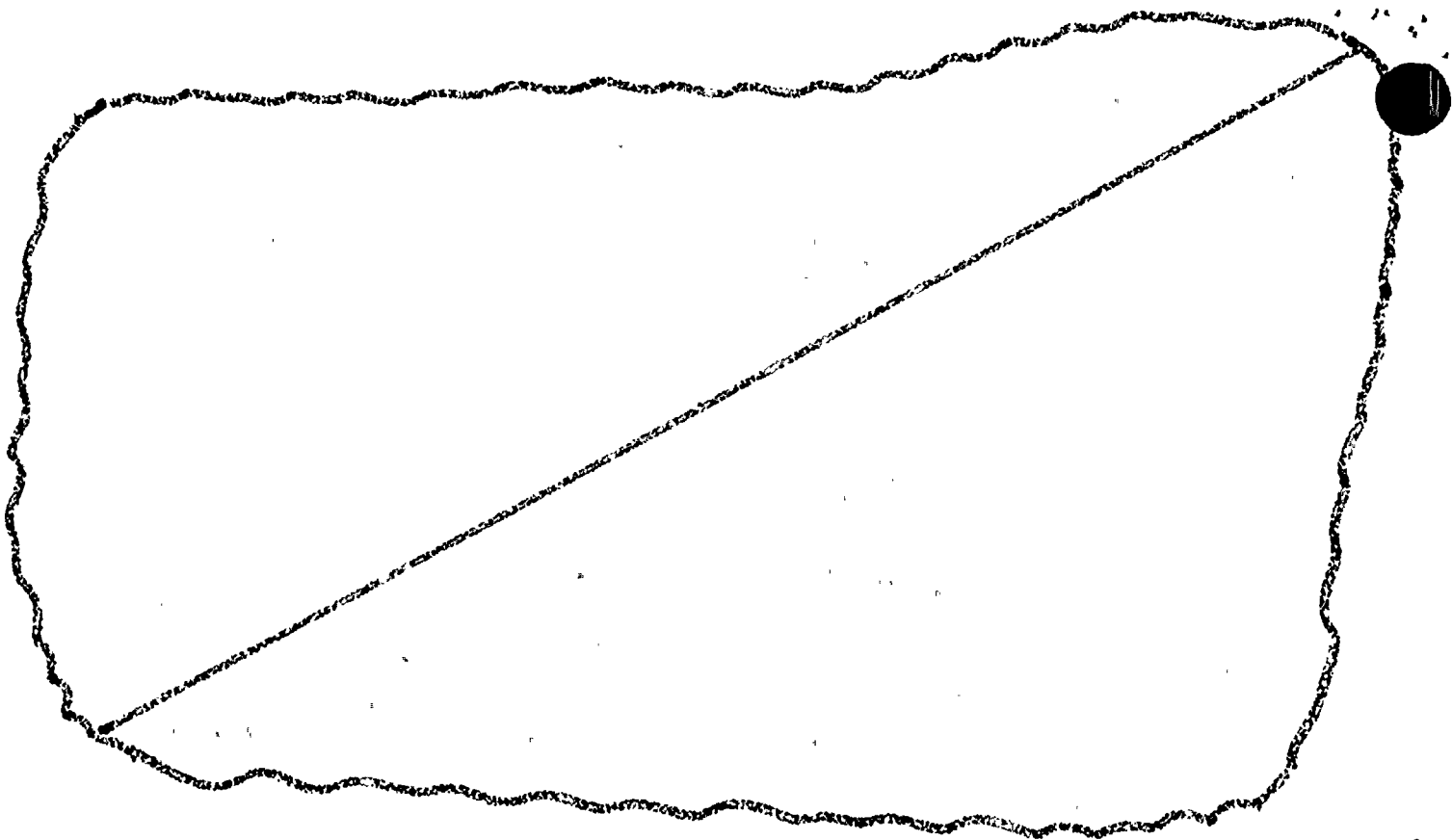


PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.7.9.2 Each of the above required fire doors shall be verified OPERABLE by inspecting the release and closing mechanism and latches at least once per 6 months, and by verifying:

- a. The OPERABILITY of the fire door supervision system for each electrically supervised fire door by performing a TRIP ACTUATING DEVICE OPERATIONAL TEST at least once per 31 days,
- b. That each locked closed fire door is closed at least once per 7 days,
- c. That doors with automatic hold-open and release mechanisms are free of obstructions at least once per 24 hours, and a functional test is performed at least once per 18 months, and
- d. That each unlocked fire door without electrical supervision is closed at least once per 24 hours.



ENCLOSURE

ADMINISTRATIVE CONTROLS

PLANT STAFF

6.2.2 The plant organization shall be subject to the following:

- a. Each on-duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1;
- b. At least one licensed Operator shall be in the control room when fuel is in either reactor.
- c. At least two licensed Operators shall be present in the control room during reactor startup, scheduled reactor shutdown and during recovery from reactor trips. In addition, while either unit is in MODE 1, 2, 3, or 4, at least one licensed Senior Operator shall be in the control room;
- d. A Health Physics Technician* shall be on site when fuel is in the reactor;
- e. All CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Operator or licensed Senior Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation; and

~~f. A site Fire Brigade of at least five members* shall be maintained on site at all times. The Fire Brigade shall not include the Shift Supervisor and the two other members of the minimum shift crew necessary for safe shutdown of the unit and any personnel required for other essential functions during a fire emergency, and~~

- f. g. Administrative procedures shall be developed and implemented to limit the working hours of plant staff who perform safety-related functions (e.g., licensed Senior Operators, licensed Operators, health physicists, auxiliary operators, and key maintenance personnel).

Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work a normal 8-hour day, 40-hour week while the plant is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance, or major plant modification, on a temporary basis the following guidelines shall be followed:

*The Health Physics Technician and Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours, in order to accommodate unexpected absence, provided immediate action is taken to fill the required positions.

10-15-55

MEMORANDUM FOR THE RECORD

SUBJECT: [Illegible]

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ADMINISTRATIVE CONTROLS

RESPONSIBILITIES (Continued)

- e. Investigation of all violations of the Technical Specifications, including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence, to the President-Nuclear Division and to the Chairman of the Company Nuclear Review Board;
- f. Review of all REPORTABLE EVENTS;
- g. Review of reports of significant operating abnormalities or deviations from normal and expected performance of plant equipment or systems that affect nuclear safety.
- h. Performance of special reviews, investigations, or analyses and reports thereon as requested by the Plant General Manager or the Chairman of the Company Nuclear Review Board;
- i. Review of the Emergency Plan and implementing procedures and submittal of recommended changes to the Chairman of the Company Nuclear Review Board;
- j. Review of changes to the PROCESS CONTROL PROGRAM and the OFFSITE DOSE CALCULATION MANUAL;
- k. Review of any accidental, unplanned, or uncontrolled radioactive release including the preparation of reports covering evaluation, recommendations, and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the President-Nuclear Division and to the Chairman of the Company Nuclear Review Board.

(INSERT)

6.5.1.7 The PNSC shall:

- a. Recommend in writing to the Plant General Manager approval or disapproval of items considered under Specification 6.5.1.6a. through d. prior to their implementation and items considered under Specification 6.5.1.6i through ~~k.~~ l.
- b. Provide written notification within 24 hours to the Plant General Manager, President-Nuclear Division and the Company Nuclear Review Board of disagreement between the PNSC and the Plant General Manager; however, the Plant General Manager shall have responsibility for resolution of such disagreements pursuant to Specification 6.1.1.

l. Review of the Fire Protection Program and implementing procedures and the submittal of recommended changes to the Company Nuclear Review Board.

(insert)

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1. Review of the Fire Protection Program and
implementing procedures and the submittal
of recommended changes to the Company
Nuclear Review Board.

INSTRUMENTATION

BASES

3/4.3.3 MONITORING INSTRUMENTATION

3/4.3.3.1 RADIATION MONITORING FOR PLANT OPERATIONS

The OPERABILITY of the radiation monitoring instrumentation for plant operations ensures that conditions indicative of potential uncontrolled radioactive releases are monitored and that appropriate actions will be automatically or manually initiated when the radiation level monitored by each channel reaches its alarm or trip setpoint.

3/4.3.3.2 MOVABLE INCORE DETECTORS

The OPERABILITY of the movable incore detectors with the specified minimum complement of equipment ensures that the measurements obtained from use of this system accurately represent the spatial neutron flux distribution of the core. The OPERABILITY of this system is demonstrated by irradiating each detector used and determining the acceptability of its voltage curve.

For the purpose of measuring $F_Q(Z)$ or $F_{\Delta H}^N$ a full incore flux map is used. Quarter-core flux maps, as defined in WCAP-8648, June 1976, may be used in recalibration of the Excore Neutron Flux Detection System, and full incore flux maps or symmetric incore thimbles may be used for monitoring the QUADRANT POWER TILT RATIO when one Power Range channel is inoperable.

3/4.3.3.3 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, Revision 3, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," May 1983 and NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.

3/4.3.3.4 FIRE DETECTION INSTRUMENTATION - DELETED

(ADDED)

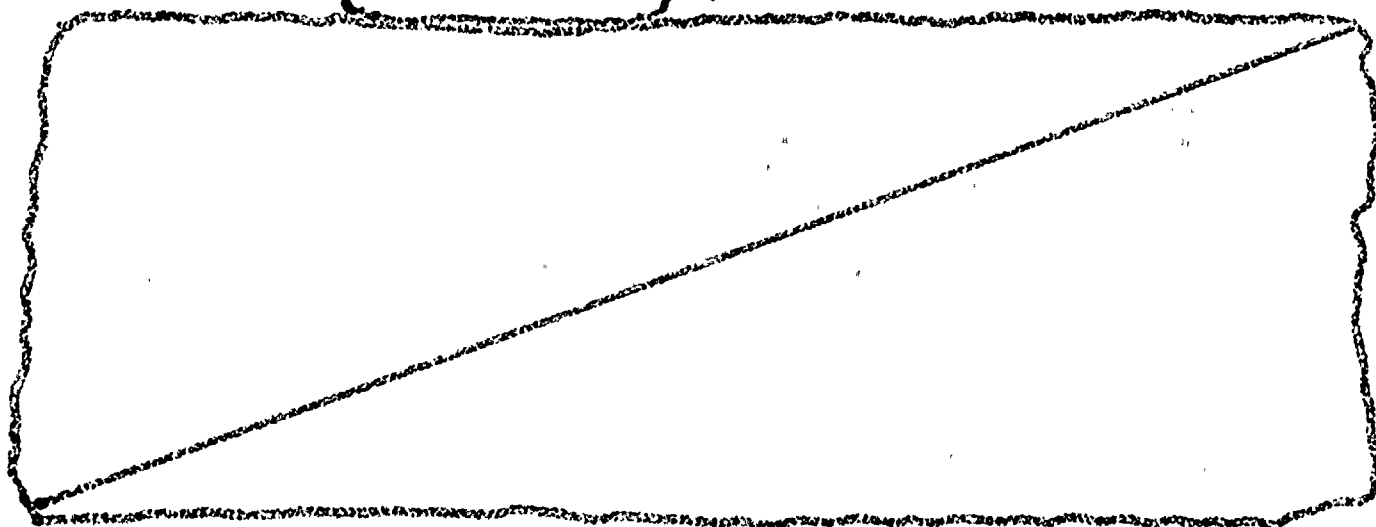
The OPERABILITY of the fire detection instrumentation ensures that both adequate warning capability is available for prompt detection of fires and that Fire Suppression Systems, that are actuated by fire detectors, will discharge extinguishing agents in a timely manner. Prompt detection and suppression of fires will reduce the potential for damage to safety-related equipment and is an integral element in the overall facility Fire Protection Program.

Fire detectors that are used to actuate Fire Suppression Systems represent a more critically important component of a plant Fire Protection Program than detectors that are installed solely for early fire warning and notification. Consequently, the minimum number of OPERABLE fire detectors must be greater.

The loss of detection capability for Fire Suppression Systems, actuated by fire detectors, represents a significant degradation of fire protection for

(Added)

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INSTRUMENTATION

BASES

FIRE DETECTION INSTRUMENTATION (Continued)

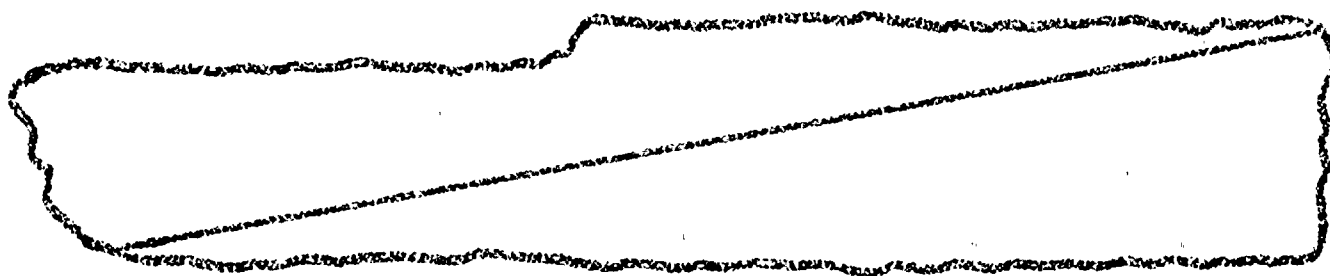
any area. As a result, the establishment of a fire watch patrol must be initiated at an earlier stage than would be warranted for the loss of detectors that provide only early fire warning. The establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

3/4.3.3.5 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid effluents. The Alarm/Trip Setpoints for these instruments shall be calculated and adjusted in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50.

3/4.3.3.6 RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The Alarm/Trip Setpoints for these instruments shall be calculated and adjusted in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. This instrumentation also includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the GAS DECAY TANK SYSTEM. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50. The sensitivity of any noble gas activity monitors used to show compliance with the gaseous effluent release requirements of Specification 3.11.2.2 shall be such that concentrations as low as 1×10^{-6} $\mu\text{Ci/ml}$ are measurable.



PLANT SYSTEMS

BASES

3/4.7.8 FIRE SUPPRESSION SYSTEMS

The OPERABILITY of the Fire Suppression Systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety-related equipment is located. The Fire Suppression System consists of the water system, spray, and/or sprinklers, fire hose stations, and yard fire hydrants. The collective capability of the Fire Suppression Systems is adequate to minimize potential damage to safety-related equipment and is a major element in the facility Fire Protection Program.

In the event that portions of the Fire Suppression Systems are inoperable, alternate backup fire-fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service. When the inoperable fire-fighting equipment is intended for use as a backup means of fire suppression, a longer period of time is allowed to provide an alternate means of fire fighting than if the inoperable equipment is the primary means of fire suppression.

The Surveillance Requirements provide assurance that the minimum OPERABILITY requirements of the Fire Suppression Systems are met.

In the event the Fire Suppression Water System becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant.

3/4.7.9 FIRE RATED ASSEMBLIES

The functional integrity of the fire rated assemblies and barrier penetrations ensures that fires will be confined or adequately retarded from spreading to adjacent portions of the facility. These design features minimize the possibility of a single fire rapidly involving several areas of the facility prior to detection and extinguishing of the fire. The fire barrier penetrations are a passive element in the facility Fire Protection Program and are subject to periodic inspections.

Fire barrier penetrations, including cable penetration barriers, fire doors and dampers are considered functional when the visually observed condition is the same as the as-designed condition.

During periods of time when a barrier is not functional, either: (1) a continuous fire watch is required to be maintained in the vicinity of the affected barrier, or (2) the fire detectors on at least one side of the affected barrier must be verified OPERABLE and an hourly fire watch patrol established until the barrier is restored to functional status.

