

REGULATOR INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 CURTIS, N.W. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 SCHWENCER, A. Licensing Branch 2

SUBJECT: Requests that changes re isolation actuation instrumentation, standby liquid control sys, fire detection instrumentation, MSIVs & fire rated assemblies be incorporated into Tech Specs. Marked-up Tech Specs encl.

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	NRR/DSI/RSB 23	1 1	NRR/DST/LGB 33	1 1
	<u>REG FILE</u> 04	1 1	RGN1	2 2
EXTERNAL:	ACRS 41	10 10	BNL (AMDTS ONLY)	1 1
	FEMA-REP DIV 39	1 1	LPDR 03	2 2
	NRC PDR 02	1 1	NSIC 05	1 1
	NTIS	1 1		

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Vice President-Engineering & Construction-Nuclear
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JUN 15 1982

Mr. A. Schwencer; Chief
Licensing Branch No. 2
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
CHANGES TO TECHNICAL SPECIFICATIONS
ER 100450 FILE 841-8
PLA-1123

Docket Nos. 50-387
50-388

Dear Mr. Schwencer:

Pennsylvania Power and Light Company requests that the following changes be incorporated into the Susquehanna Steam Electric Station Unit 1 Technical Specifications:

1. Specification 3/4.3.2, Isolation Actuation Instrumentation

page 3/4 3-9 : add footnote # as shown on Attachment 1A

page 3/4 3-13: change Trip Functions 5.a-i to Trip Functions 5.a-g
as shown on Attachment 1B

page 3/4 3-14: change Trip Functions 6.a-i to Trip Functions 6.a-g
as shown on Attachment 1C

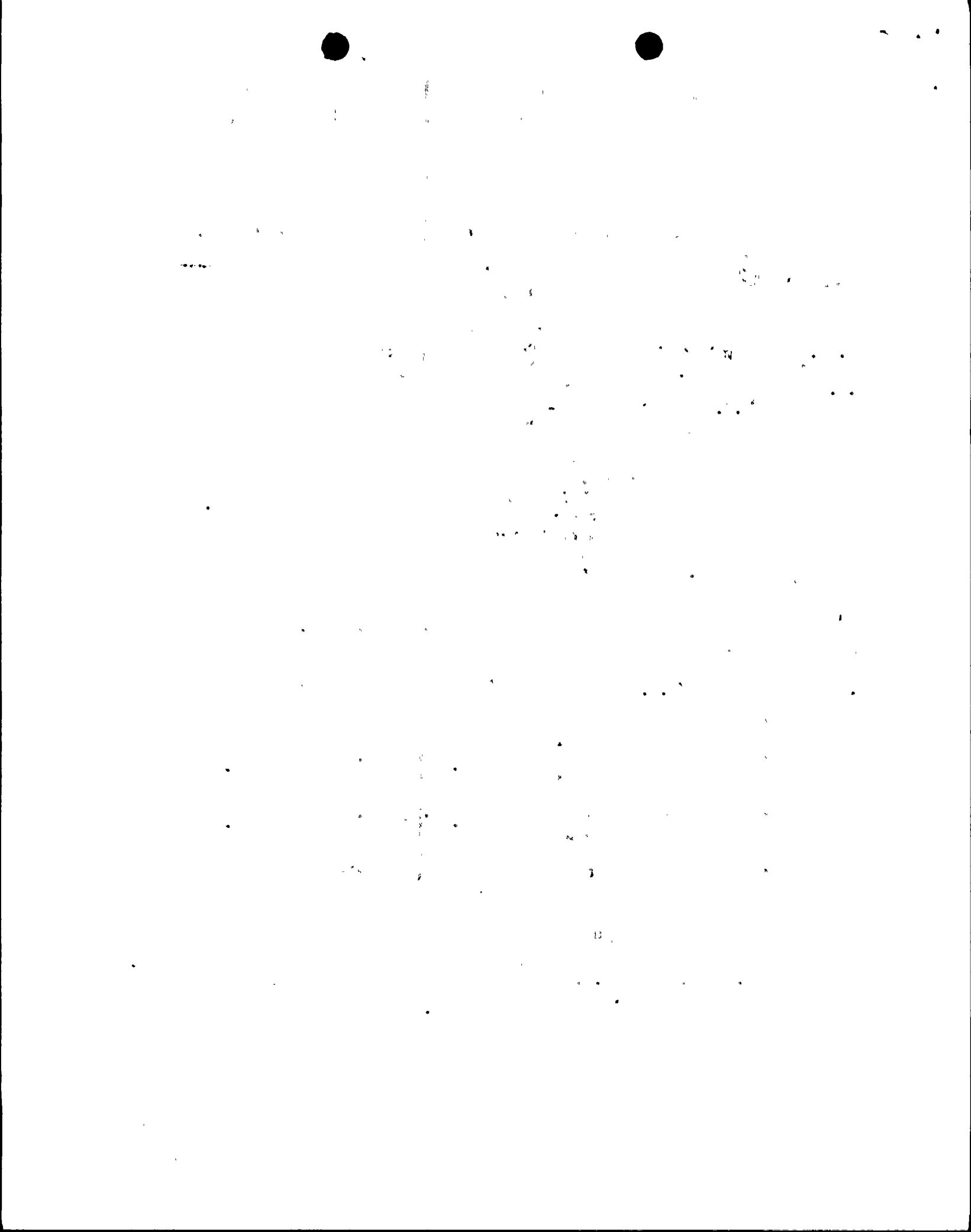
page 3/4 3-16: add second paragraph to footnote (b) as shown on
Attachment 1D

Justification for Changes :

The proposed changes should provide a better balance between the conflicting goals of isolation capability assurance and preservation of high pressure emergency makeup capability to the reactor.

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JUN 15 1982

Page 2

SSES PLA-1123
ER 100450 File 841-8
Mr. A. Schwencer

As presently written, the ACTION statements for Specification 3.3.2 require isolation of the HPCI/RCIC steam supply lines within a short period of time if even one instrument channel in the isolation logic system is inoperable. The time periods allowed for continued operation without isolation of the pumping system are so short that only very minor repairs can be completed and some required surveillances may not be accommodated. Although continued operation with isolation of the pump is permitted by the LCO's for HPCI and RCIC, this action, is not the most reasonable considering the isolation logic system design.

Each trip system in the isolation logic will independently trip one of the containment isolation valves upon receipt of a signal from any one of the listed Trip Functions (two channels are required for Trip Functions b and c, one channel for the remaining functions). Inoperability of trip channels does not necessarily result in a serious degradation of isolation capability. Although each Trip Function monitors a different specific parameter, they provide diverse means of detecting steam leakage. In each trip system, two functions (steam line Δ pressure - high and steam supply pressure - low) respond to breaks in the steam supply piping. Three functions (equipment room temperature - high, equipment room Δ temperature - high, and emergency area cooler temperature - high) respond to steam leakage in the pump room and are essentially redundant. Two functions (pipe routing area temperature - high and pipe routing area Δ temperature - high) detect steam leakage along the length of steam line piping from the containment. The final Trip Function (turbine exhaust diaphragm pressure - high) responds to steam leakage from the rupture diaphragms, which is also sensed by the equipment room temperature sensors.

To recognize the diversity of temperature measurement in the pump room itself, the three temperature sensors are grouped as one Trip Function and only two of these channels are required to be operable in each trip system.

The changes regarding allowable time intervals before action must be taken reflect the extreme sensitivity of these isolation systems. When channels are inoperable, other channels are available in the same trip system to detect a steam leakage condition and isolate the steam line. Independently, all parameters are monitored in the other trip system which is also capable of achieving isolation through a different valve. This level of protection is more than adequate during the period stated, given the low expected frequency of steam line break events. The benefit gained is the adequate time provided for more extensive repair activity or surveillance testing to be completed without taking a pump out of service. Pump challenges do occur as regular events during plant operations and it is appropriate to keep the systems operable when warranted.



JUN 15 1982

Page 3

SSES PLA-1123
ER 100450 File 841-8
Mr. A. Schwencer

2. Specification 3/4.1.5, Standby Liquid Control System

page 3/4 1-20: delete 4.1.5.d.2, renumber accordingly

add an item 4.1.5.c.2, as shown on Attachment 2

Justification for Changes:

Revision 1 to the Program Plan for Pump and Valve ISI will contain the commitment to test the referenced relief valves in accordance with paragraph IWV-3510 of the ASME Boiler and Pressure Vessel Code, Section XI, 1980 Edition incorporating the Winter 1980 Addenda. This testing program provides adequate demonstration of relief valve operability. The proposed change acknowledges this program.

3. Specification 3/4.3.7.9, Fire Detection Instrumentation

page 3/4 3-79: add an additional sentence as shown on Attachment 3A

page 3/4 3-80,82: revise Table 3.3.7.9-1 to identify "especially difficult to access" detectors as shown on Attachments 3B and 3C

Justification for Changes:

Susquehanna SES has several fire detection instruments installed which, because of their locations, are especially difficult to access. These areas are under the raised floor and above the false ceiling of the Control Room. Because of the impact on Control Room activities, it is desirable to limit the testing frequency for these detectors. Since the Control Room is required to be continuously manned, the proposed testing frequency for these specific detectors does not significantly affect the ability to detect and respond to fires.

4. Specification 3/4.4.7, Main Steam Isolation Valves

page 3/4 4-22: revise 4.4.7 as shown on Attachment 4

Justification for Change:

The actual requirement from transient analysis for the "fast" time limit on MSIV closure is that the steam lines, which are manifolded together, are not completely isolated in less than three seconds. The proposed 4.4.7.a ensures that this requirement is met, while providing some allowance for individual valve times to be slightly less than three seconds. 4.4.7.b provides a lower limit of 2.5 seconds to preclude valve damage. The proposed 4.4.7.c reaffirms the existing five second maximum requirement.



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JUN 15 1982

Page 4

SSES PLA-1123
ER 100450 File 841-8
Mr. A. Schwencer

5. Specification 3/4.6.3, Primary Containment Isolation Valves

page 3/4 6-18: add clarification as shown on Attachment 5

Justification for Change:

This specification currently applies to each containment isolation valve in Table 3.6.3-1, even though the requirement includes "cyclling the valve" after work is performed on "the valve or its associated actuator, control or power circuit...". It is clear that the requirement is intended to apply to power operated valves, and not to relief valves, check valves, shear valves, etc., which are also included in the table. This clarification is requested to bring the wording into accordance with the intent of the specification.

6. Specification 3/4.6.6.3, Drywell Air Flow System

page 3/4 6-38: delete 4.6.6.3.b (see Attachment 6)

Justification for Change:

The necessity for operation of the specified drywell cooler fans on low speeds during accident conditions is based on a qualitative assessment of containment atmosphere mixing. As such, no specific air flow requirement is assigned to this function. An appropriate demonstration of operability would verify that the fans operate and circulate air. The proposed specification accomplishes such a demonstration, because the fans are equipped with a switch which actuates the other subsystem fan on low differential pressure. If the fan is not circulating air, this will be detected by actuation of the switch during the testing specified in 4.6.6.3.a and no further testing is necessary.

7. Specification 3/4.7.7, Fire Rated Assemblies

page 3/4 7-47: change the frequencies of 4.7.7.2 a and b to 7 days as shown on Attachment 7A

delete 4.7.7.2.c and renumber accordingly

Justification for Change:

Control and inspection of fire doors was the subject of FSAR Question 281.25. PP&L's response (Attachment 7B) to that question addressed inspection frequency as well as provisions for supervision and automatic closure.



JUN 15 1982

Page 5

SSES PLA-1123
ER 100450 File 841-8
Mr. A. Schwencer

As stated in the Susquehanna SES Safety Evaluation Report (NUREG-0776), our commitments concerning fire doors were found to be acceptable. We therefore feel that they should be reflected in the Technical Specifications.

If you have any questions on these revisions/justifications, please contact Rocky Sgarro at (215) 770-5146.

Very truly yours,



N. W. Curtis
Vice President-Engineering & Construction-Nuclear

RRS/mks

Attachments

cc: R. L. Perch - NRC
R. R. Bottimore - NRC



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INSTRUMENTATION3/4.3.2 ISOLATION ACTUATION INSTRUMENTATIONLIMITING CONDITION FOR OPERATION

3.3.2 The isolation actuation instrumentation channels shown in Table 3.3.2-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.2-2 and with ISOLATION SYSTEM RESPONSE TIME as shown in Table 3.3.2-3.

APPLICABILITY: As shown in Table 3.3.2-1.

ACTION:

- a. With an isolation actuation instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.2-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for one trip system, place the inoperable channel(s) and/or that trip system in the tripped condition*# within one hour. The provisions of Specification 3.0.4 are not applicable.
- c. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for both trip systems, place at least one trip system** in the tripped condition within one hour and take the ACTION required by Table 3.3.2-1.

*An inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.3.2-1 for that Trip Function shall be taken.

**If more channels are inoperable in one trip system than in the other, place the trip system with more inoperable channels in the tripped condition, except when this would cause the Trip Function to occur.

For the HPCI and RCIC systems, an inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur, and the inoperable channel shall be returned to OPERABLE status within 8 hours or the ACTION required by Table 3.3.2-1 for that Trip Function shall be taken.

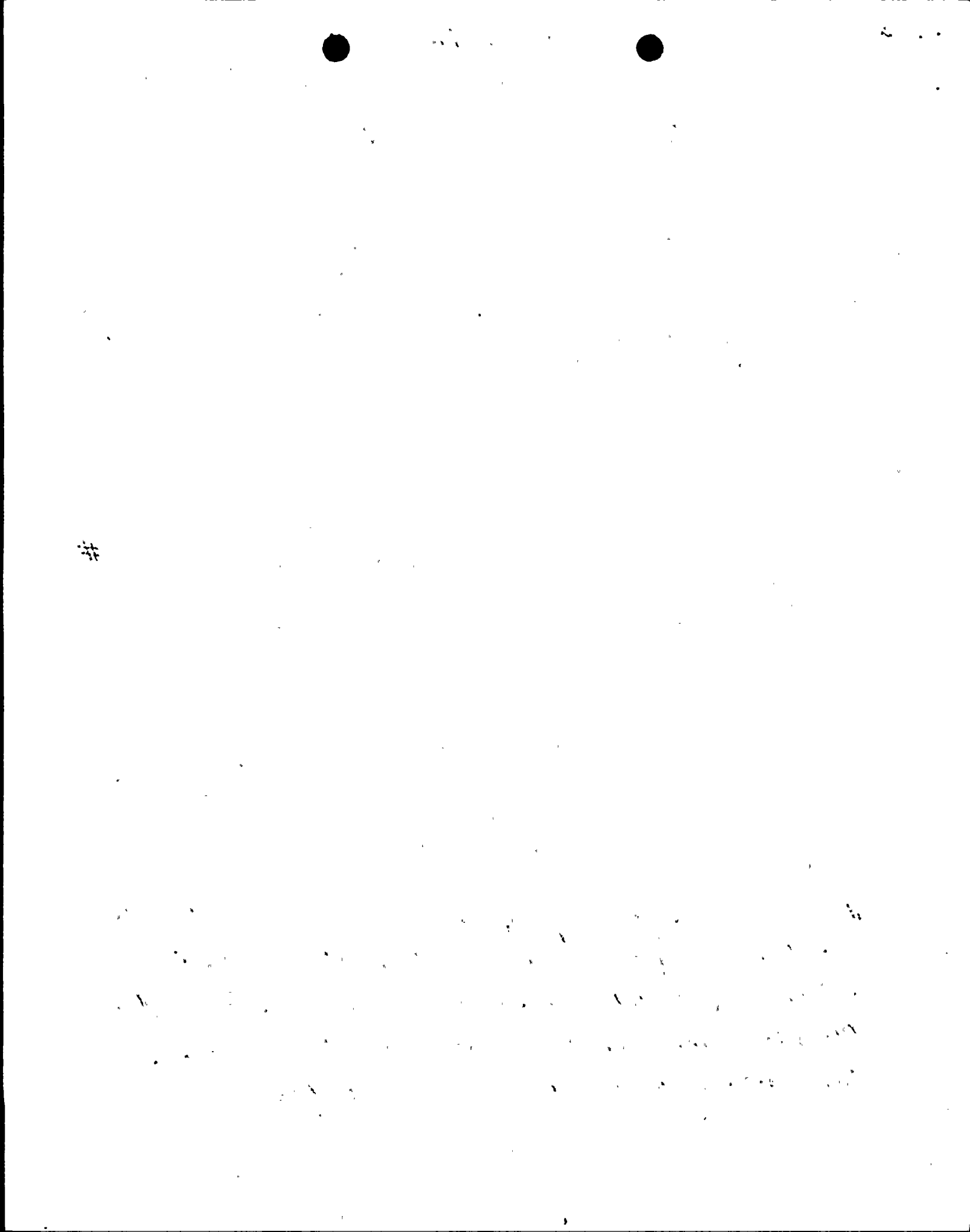


TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

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<u>TRIP FUNCTION</u>	<u>ISOLATION SIGNAL(S) (a)</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (b)</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>	
5. REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION					
a.	RCIC Steam Line Δ Pressure -High	K	1	1, 2, 3	23
b.	RCIC Steam Supply Pressure - Low	K	2	1, 2, 3	23
c.	RCIC Turbine Exhaust Diaphragm Pressure - High	K	2	1, 2, 3	23
d.	RCIC Equipment Room Leak Detection Temperature - High consisting of: RCIC Equipment Room Temperature - High	K	X 2	1, 2, 3	23
	RCIC Equipment Room Δ Temperature - High	K	1	1, 2, 3	23
e.	RCIC Emergency Area Cooler Temperature - High RCIC Pipe Routing Area Temperature - High	K K	1/valve	1, 2, 3	23
f.	RCIC Pipe Routing Area Δ Temperature - High	K	1/valve	1, 2, 3	23
	RCIC Emergency Area Cooler Temperature - High	K	1	1, 2, 3	23
g.	Manual Initiation	NA	1	1, 2, 3	24

SUSQUEHANNA - UNIT 1

3/4 3-13

APR 29 1982

Attachment 1B



6.

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

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<u>TRIP FUNCTION</u>	<u>ISOLATION SIGNAL(S)^(a)</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (b)</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
6. HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION				
a. HPCI Steam Line Δ Pressure - High	L	1	1, 2, 3	23
b. HPCI Steam Supply Pressure-Low	L	2	1, 2, 3	23
c. HPCI Turbine Exhaust Diaphragm Pressure - High	L	2	1, 2, 3	23
d. HPCI Equipment Room Leak Detection consisting of HPCI Equipment Room Temperature - High	L	2	1, 2, 3	23
g	L	1	1, 2, 3	23
g HPCI Equipment Room Δ Temperature - High	L	1	1, 2, 3	23
g HPCI Emergency Area Cooler Temperature - High	L	1	1, 2, 3	23
e. g HPCI Pipe Routing Area Temperature - High	L	1/valve	1, 2, 3	23
f. g HPCI Pipe Routine Area Δ Temperature - High	L	1/valve	1, 2, 3	23
g. g Manual Initiation	NA	1	1, 2, 3	24

SUSQUEHANNA - UNIT 1

3/4 3-14

1/APR 29 1982

ATTACHMENT 1C

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTION

- ACTION 20 - Be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
- ACTION 21 - Be in at least STARTUP with the associated isolation valves closed within 6 hours or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
- ACTION 22 - Be in at least STARTUP within 6 hours.
- ACTION 23 - Close the affected system isolation valves within one hour and declare the affected system inoperable.
- ACTION 24 - Restore the manual initiation function to OPERABLE status within 8 hours or close the affected system isolation valves within the next hour and declare the affected system inoperable or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- ACTION 25 - Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within one hour.
- ACTION 26 - Lock the affected system isolation valves closed within one hour and declare the affected system inoperable.

NOTES

- * When handling irradiated fuel in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.
- ** Actuates valves shown in Table 3.6.5.2-1.
- (a) See Specification 3.6.3, Table 3.6.3-1 for valves which are actuated by these isolation signals.
- (b) A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the channel or trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter.
- (d) Also starts the standby gas treatment system.
- (g) Closes only RWCU system inlet outboard valve.

For the HPCI and RCIC systems, a channel may be placed in an inoperable status for up to 8 hours for required surveillance without placing the trip system in a tripped condition provided that Trip Function is OPERABLE in the other Trip system.

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 31 days by;

1. Verifying the continuity of the explosive charge.
2. Determining that the available weight of sodium pentaborate is greater than or equal to 5500 lbs and the concentration of boron in solution is within the limits of Figure 3.1.5-2 by chemical analysis.*
3. Verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

c. Demonstrating that, when tested pursuant to Specification 4.0.5, ~~the that =~~ the minimum flow requirement of 41.2 gpm at a pressure of greater than or equal to 1190 psig is met, and

1. ~~the~~ 2. pump relief valve setpoints are verified.

d. At least once per 18 months during shutdown by;

1. Initiating one of the standby liquid control system loops, including an explosive valve, and verifying that a flow path from the pumps to the reactor pressure vessel is available by pumping demineralized water into the reactor vessel. The replacement charge for the explosive valve shall be from the same manufactured batch as the one fired or from another batch which has been certified by having one of that batch successfully fired. Both injection loops shall be tested in 36 months:

~~(2. Demonstrating that the pump relief valve setpoint is less than or equal to 1400 psig.)~~

2. ~~2.~~ ~~3.~~ **Demonstrating that all heat traced piping is unblocked by pumping from the storage tank to the test tank and then draining and flushing the discharge piping and test tank with demineralized water.

3. ~~4.~~ Demonstrating that the storage tank heaters are OPERABLE by verifying the expected temperature rise for the sodium pentaborate solution in the storage tank after the heaters are energized.

*This test shall also be performed anytime water or boron is added to the solution or when the solution temperature drops below the limit of Figure 3.1.5-1.

**This test shall also be performed whenever both heat tracing circuits have been found to be inoperable and may be performed by any series of sequential, overlapping or total flow path steps such that the entire flow path is included.

FIRE DETECTION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.7.9 As a minimum, the fire detection instrumentation for each fire detection zone shown in Table 3.3.7.9-1 shall be OPERABLE.

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

ACTION:

With the number of OPERABLE fire detection instruments less than the Minimum Instruments OPERABLE requirement of Table 3.3.7.9-1:

- a. Within 1 hour, establish a fire watch patrol to inspect the zone(s) with the inoperable instrument(s) at least once per hour, unless the instrument(s) is located inside an inaccessible zone, then inspect the area surrounding the inaccessible zone at least once per hour.
- b. Restore the minimum number of instrument(s) to OPERABLE status within 14 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the instrument(s) to OPERABLE status.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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

4.3.7.9.2 The 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.

Fire detectors which are especially difficult to access shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST at least once per 18 months.

TABLE 3.3.7.9-1

FIRE DETECTION INSTRUMENTATION

FIRE ZONE	INSTRUMENT LOCATION		INSTRUMENTS OPERABLE						
	ROOM OR AREA	ROOM NO.	ELEV.	HEAT TOTAL MIN.		IONIZATION TOTAL MIN.		PHOTO-ELECTRIC TOTAL MIN.	
a. Control Building									
0-24D	Lower Relay Room	C-203	698'-1"	4	2	4	2	NA	NA
0-24G	Lower Relay Room	C-201	698'-1"	4	2	4	2	NA	NA
0-25A	Lower Cable Spreading Rm.	C-300	714'-0"	26	13	6	3	NA	NA
0-25E	Lower Cable Spreading Rm.	C-301	714'-0"	20	10	6	3	NA	NA
0-26H	Control Rm. (Under Flr. Unit 1)*	C-409	729'-1"	NA	NA	18	9	NA	NA
0-26H	Control Room (Under Flr. Unit 2)*	C-409	729'-1"	NA	NA	15	7	NA	NA
0-26H	Control Room ^{te}	C-409	729'-1"	NA	NA	10	5	NA	NA
0-26H	Control Rm. (Above Clg)*	C-409	729'-1"	NA	NA	6	3	NA	NA
0-27C	Upper Cable Spreading Rm.	C-500	753'-0"	25	12	6	3	NA	NA
0-27B	Upper Cable Spreading Rm.	C-507	753'-0"	24	12	5	2	NA	NA
0-27E	Upper Relay Room	C-501	754'-1"	2	1	2	1	NA	NA
0-27A	Upper Relay Room	C-502	754'-1"	2	1	2	1	NA	NA
0-28K	Battery Room	C-600	771'-0"	NA	NA	1	1	NA	NA
0-28L	Battery Room	C-601	771'-0"	NA	NA	1	1	NA	NA
0-28M	Battery Room	C-602	771'-0"	NA	NA	1	1	NA	NA
0-28N	Battery Room	C-603	771'-0"	NA	NA	1	1	NA	NA
0-28I	Battery Room	C-607	771'-0"	NA	NA	1	1	NA	NA
0-28J	Battery Room	C-608	771'-0"	NA	NA	1	1	NA	NA
0-28G	Battery Room	C-609	771'-0"	NA	NA	1	1	NA	NA
0-28F	Battery Room	C-610	771'0"	NA	NA	1	1	NA	NA
0-28E	Battery Room	C-614	771'-0"	NA	NA	1	1	NA	NA
0-28C	Battery Room	C-615	771'-0"	NA	NA	1	1	NA	NA
0-28D	Battery Room	C-616	771'-0"	NA	NA	1	1	NA	NA
0-28T	Battery Room	C-617	771'-0"	NA	NA	1	1	NA	NA

* especially difficult to access

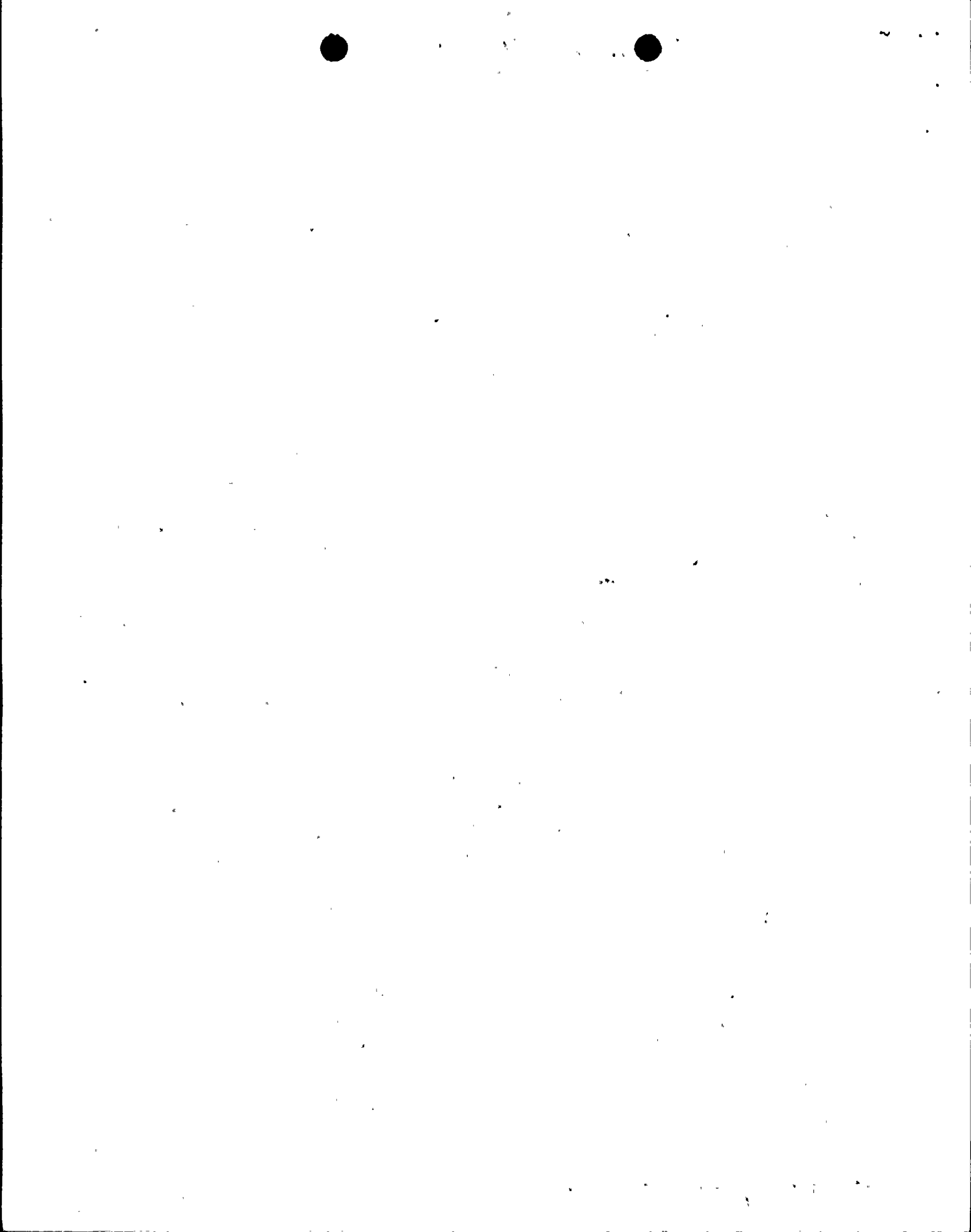


TABLE 3.3.7.9-1 (Continued)

FIRE DETECTION INSTRUMENTATION

<u>INSTRUMENT LOCATION</u>			<u>INSTRUMENTS OPERABLE</u>							
<u>FIRE ZONE</u>	<u>ROOM OR AREA</u>	<u>ROOM NO.</u>	<u>ELEV.</u>	<u>HEAT TOTAL MIN.</u>		<u>IONIZATION TOTAL MIN.</u>		<u>PHOTO-ELECTRIC TOTAL MIN.</u>		
<u>Reactor Building (Continued)</u>										
1-6D	H&V Equipment Room	I-612	779'-1"	NA	NA	10	5	NA	NA	
1-6E	Recirculation Fans Area	I-615	779'-1"	NA	NA	2	1	NA	NA	
0-6G	Surge Tank Vault	I-601	779'-4"	NA	NA	2	1	NA	NA	
1-7A	H&V Fan and Filter Rooms	I-703	799'-1"	2	1	9	5	2	1	
1-7B	Recirculation Fan Room	I-701	799'-1"	NA	NA	2	1	NA	NA	
0-8A	Refueling Floor	-	818'-1"	NA	NA	NA	NA	14	7	
c. <u>ESSW Pumphouse</u>										
0-51	Pump Room	E-1	685'-6"	NA	NA	6	3	NA	NA	
0-52	Pump Room	E-2	685'-6"	NA	NA	6	3	NA	NA	
<u>INFRA-RED (FLAME) TOTAL MIN.</u>										
d. <u>Diesel Generator Building</u>										
0-41A	Diesel Generator Room	DG-1	660'-0"	22	11	2	1	15	7	
0-41A	Diesel Generator room	DG-16	677'-0"	22	11	2	1	15	7	
0-41C	Diesel Generator Room	DG-2	660'-0"	22	11	2	1	15	7	
0-41C	Diesel Generator Room	DG-17	677'-0"	22	11	2	1	15	7	
0-41B	Diesel Generator Room	DG-3	660'-0"	22	11	2	1	15	7	
0-41B	Diesel Generator Room	DG-18	677'-0"	22	11	2	1	15	7	
0-41D	Diesel Generator Room	DG-4	660'-0"	22	11	2	1	15	7	
0-41D	Diesel Generator Room	DG-19	677'-0"	22	11	2	1	15	7	

~~*Not accessible~~

REACTOR COOLANT SYSTEM3/4.4.7 MAIN STEAM LINE ISOLATION VALVESLIMITING CONDITION FOR OPERATION

3.4.7 Two main steam line isolation valves (MSIVs) per main steam line shall be OPERABLE with closing times greater than or equal to 3 and less than or equal to 5 seconds.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

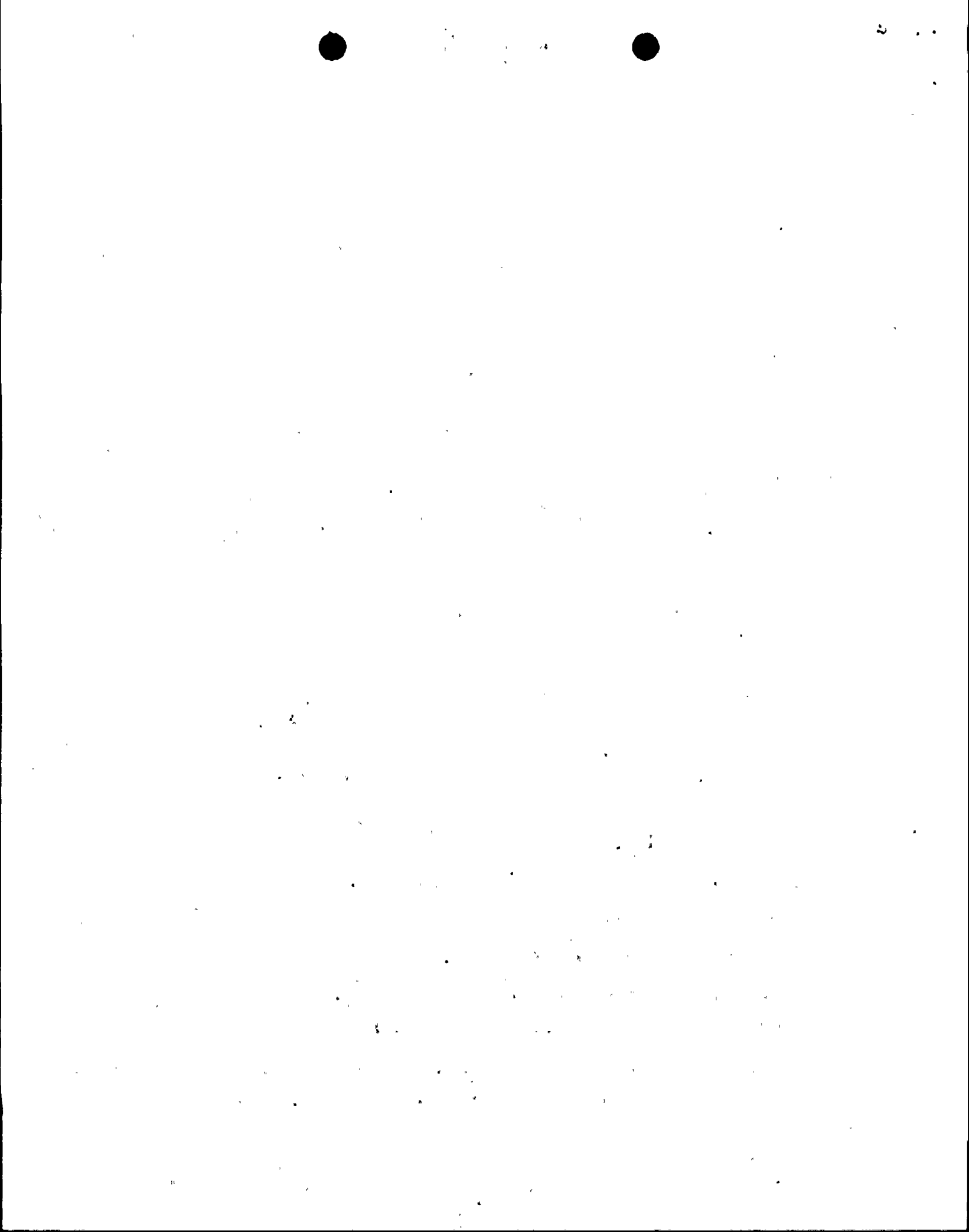
ACTION:

- a. With one or more MSIVs inoperable:
 1. Maintain at least one MSIV OPERABLE in each affected main steam line that is open and within 8 hours, either:
 - a) Restore the inoperable valve(s) to OPERABLE status, or
 - b) Isolate the affected main steam line by use of a deactivated MSIV in the closed position.
 2. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

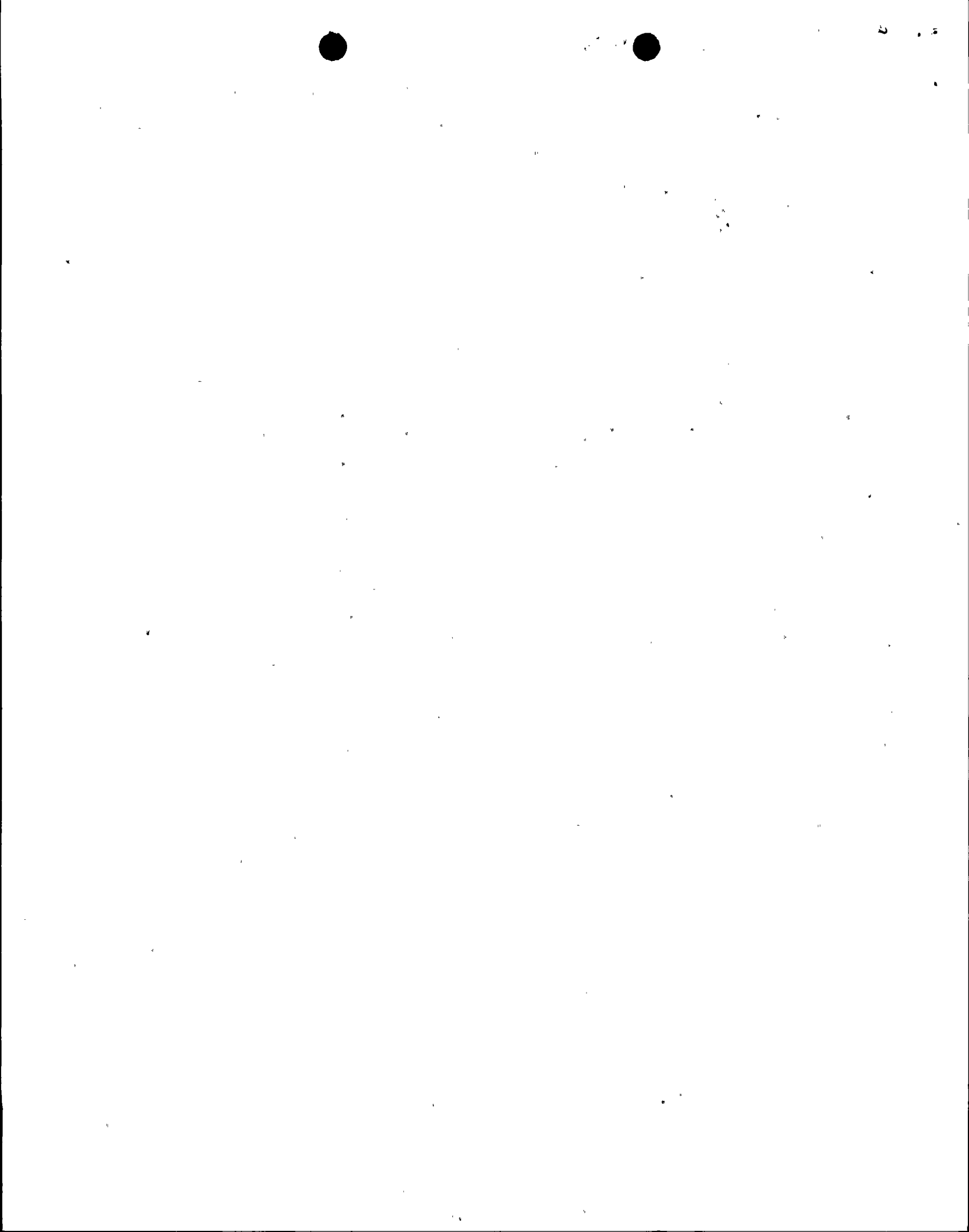
4.4.7 Each of the above required MSIVs shall be demonstrated OPERABLE ^{full-stroke} by ~~verifying full closure between 3 and 5 seconds~~ when tested pursuant to Specification 4.0.5. by:

- a. Verifying that the average of the closure times for the fastest MSIV in each of the steam lines is greater than or equal to 3 seconds (exclusive of delay),
- b. Verifying that the closure time for the fastest MSIV is greater than or equal to 2.5 seconds, and
- c. Verifying that the closure time for all MSIVs is less than or equal to 5 seconds (including delay).



CONTAINMENT SYSTEMSSURVEILLANCE REQUIREMENTS

- power-operated*
- 4.6.3.1 Each primary containment isolation valve shown in Table 3.6.3-1 shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by cycling the valve through at least one complete cycle of full travel and verifying the specified isolation time.
- 4.6.3.2 Each primary containment automatic isolation valve shown in Table 3.6.3-1 shall be demonstrated OPERABLE at least once per 18 months by verifying that on a containment isolation-test signal each automatic isolation valve actuates to its isolation position.
- 4.6.3.3 The isolation time of each primary containment power operated or automatic valve shown in Table 3.6.3-1 shall be determined to be within its limit when tested pursuant to Specification 4.0.5.
- 4.6.3.4 Each reactor instrumentation line excess flow check valve shown in Table 3.6.3-1 shall be demonstrated OPERABLE at least once per 18 months by verifying that the valve checks flow.
- 4.6.3.5 Each traversing in-core probe system explosive isolation valve shall be demonstrated OPERABLE at least once per 31 days by verifying the continuity of the explosive charge.



CONTAINMENT SYSTEMS

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DRYWELL AIR FLOW SYSTEMLIMITING CONDITION FOR OPERATION

3.6.6.3 Three independent drywell air flow unit cooler subsystems shall be OPERABLE at low speed with each subsystem consisting of 2 unit cooler fans.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

ACTION:

With one fan of one or more unit cooler subsystems inoperable at low speed, restore the inoperable fan(s) to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.6.6.3 Each drywell air flow unit cooler subsystem shall be demonstrated OPERABLE^{1/3}

a) At least once per 92 days by:

1. Starting each fan at low speed from the control room, and
2. Verifying that each fan operates for at least 15 minutes.

~~(b. At least once per 18 months by verifying each subsystem flow rate to be at least 4000 cfm.)~~



PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.7.7.2 Each of the above required fire doors shall be verified OPERABLE by:

- a. Verifying the position of each closed fire door at least once per ~~24 hours~~ 7 days.
- b. Verifying that doors with automatic hold-open and release mechanisms are free of obstructions at least once per ~~24 hours~~ 7 days.
- c. ~~Verifying the position of each locked closed fire door at least once per 7 days.~~
- c. ~~d~~ Verifying the OPERABILITY of the fire door supervision system by performing a CHANNEL FUNCTIONAL TEST at least once per 31 days.
- d. ~~x~~ Inspecting the automatic hold-open, release and closing mechanism and latches at least once per 6 months.



ATTACHMENT 7B

SSES-FSAR

QUESTION. 281.25

It is our position that to meet Section D.1.(j) of Appendix A to BTP-APCSB 9.5-1 all fire doors should be normally closed and delay-alarmed with alarm and annunciation in the control room or be locked closed.

RESPONSE:

One of the following measures will be employed prior to fuel load to ensure fire doors will protect openings as required in case of fire:

- 1). Fire doors will be kept closed and electrically supervised at a continuously manned location; or
- 2). Fire doors will be locked closed; or
- 3). Fire doors will be provided with automatic hold-open and release mechanisms and inspected weekly to verify that doorways are free of obstructions; or
- 4). Fire doors will be kept closed and inspected weekly to verify that they are in the closed position.

