

TABLE 4.11.2.1.2-1

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

Gaseous Release Type ^x	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) ^a ($\mu\text{Ci}/\text{ml}$)		
A. Containment Purge	^P Each Purge ^b Grab Sample	^P Each Purge ^b	Principal Gamma Emitters ^g	1×10^{-4}		
			H-3	1×10^{-6}		
B. Reactor Building Vents, Turbine Building Vents, and SGTS	^M ^b Grab Sample	^M ^b	Principal Gamma Emitters ^g	1×10^{-4}		
			H-3	1×10^{-6}		
C. All Release Types as listed in A and B.	Continuous ^f	^W ^{c,d} Charcoal Sample	I-131	1×10^{-12}		
			^W ^{c,d} Particulate Sample	Principal Gamma Emitters ^{xg} (I-131, Others)	1×10^{-11}	
				Gross Alpha	1×10^{-11}	
				^Q Composite Particulate Sample	Sr-89, Sr-90	1×10^{-11}
					Noble Gas Monitor	1×10^{-6} (XE-133 equivalent)

8305100021 830504
 PDR ADDCK 05000387
 SUSQUEHANNA - UNIT 1

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ATTACHMENT A



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TABLE 4.8.1.1.2-2
 UNIT 1 AND COMMON
 DIESEL GENERATOR LOADING TIMERS

<u>DEVICE TAG NO.</u>	<u>SYSTEM</u>	<u>LOCATION</u>	<u>TIME SETTING</u>
K116A	CS pp 1A	1C626	10.5 sec
K116B	CS pp 1B	1C627	10.5 sec
K125A	CS pp 1C	1C626	10.5 sec
K125B	CS pp 1D	1C627	10.5 sec
62X-20104	Emerg Switchgear Rm cooler A & RHR SN pp H&V fan A	0C877A	60 sec
62X-20204	Emerg Switchgear Rm cooler B & RHR SN pp H&V fan B	0C877B	60 sec
62X1-20304	Control Structure Chillwater System	0C877A	3 min
62X1-20404	Control Structure Chillwater System	0C877B	3 min
62X2-20304	Control Structure Chillwater System	0C877A	3.5 min
62X2-20404	Control Structure Chillwater System	0C877B	3.5 min
62X3-20304	Control Structure Chillwater System	0C877A	60 sec
62X3-20404	Control Structure Chillwater System	0C877B	60 sec
62X ² _A -20310	Control Structure Chillwater System	0C876A	3 min
62X ² _A -20410	Control Structure Chillwater System	0C876B	3 min
62AX2-20108	Emerg SW	1A201	40 sec
62AX2-20208	Emerg SW	1A202	40 sec
62AX2-20303	Emerg SW	1A203	53 sec
62AX2-20403	Emerg SW	1A204	57 sec
62X-516	DG Rm Exh Fan A	0B516	2 min
62X-526	DG Rm Exh Fan B	0B526	2 min
62X-536	DG Rm Exh Fan C	0B536	2 min
62X-546	DG Rm Exh Fan D	0B546	2 min
62A-20102	RHR Pump 1A	1A201	3 sec
62A-20202	RHR Pump 1B	1A202	3 sec
62A-20302	RHR Pump 1C	1A203	3 sec
62A-20402	RHR Pump 1D	1A204	3 sec

LIMITING CONDITION FOR OPERATION (Continued)

b. For D.C. power distribution, Division I or Division 2, with:

1. Division I consisting of:

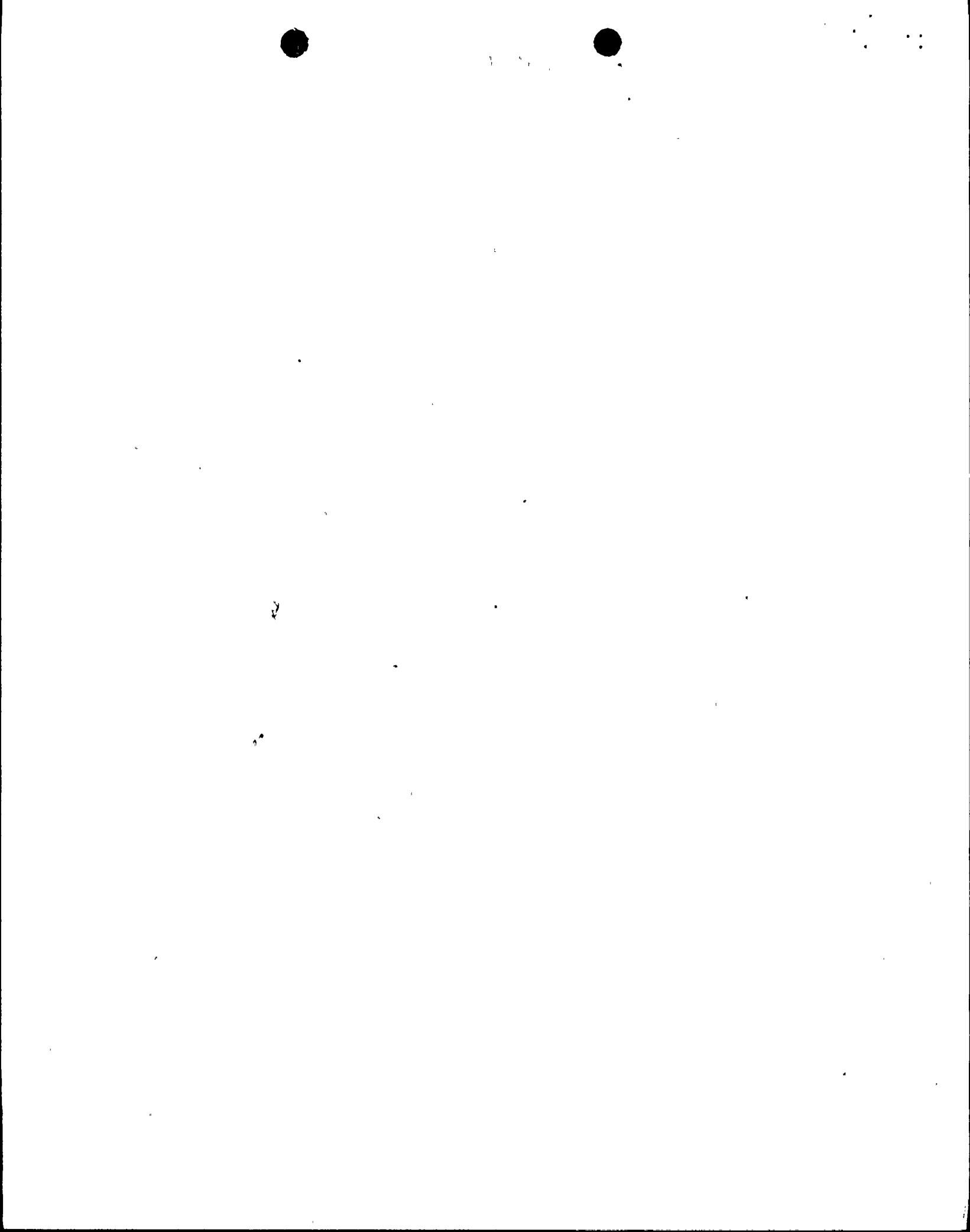
- | | |
|---|--------------|
| a) Load group Channel "A", consisting of: | |
| 1) 125 volt DC buses | 1D612, 1D614 |
| 2) Fuse box | 1D611 |
| b) Load group Channel "C", consisting of: | |
| 1) 125 volt DC buses | 1D632, 1D634 |
| 2) Fuse box | 1D631 |
| c) Load group "I", consisting of: | |
| 1) 250 volt DC buses | 1D652, 1D254 |
| 2) Fuse box | 1D651 |
| d) Load group "I", consisting of: | |
| 1) \pm 24 volt DC buses | 1D672 |
| 2) Fuse box | 1D671 |

2. Division II consisting of:

- | | |
|---|-------------------------------------|
| a) Load group Channel "B", consisting of: | |
| 1) 125 volt DC buses | 1D622, 1D624 |
| 2) Fuse box | 1D621 |
| b) Load group Channel "D", consisting of: | |
| 1) 125 volt DC buses | 1D642, 1D644 |
| 2) Fuse box | 1D641 |
| c) Load group "II", consisting of: | |
| 1) 250 volt DC buses | ⁶
1D672, 1D264, 1D274 |
| 2) Fuse box | 1D661 |
| d) Load group "II", consisting of: | |
| 1) \pm 24 volt DC buses | 1D682 |
| 2) Fuse box | 1D681 |

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5 and *.

*When handling irradiated fuel in the secondary containment.



ATTACHMENT B p. 3 of 8

TABLE 3.8.4.1-1

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

<u>CIRCUIT BREAKER LOCATION</u>	<u>TYPE*</u>	<u>FRAME RATING/UL</u>	<u>TRIP SET POINT (Amperes)</u>	<u>RESPONSE TIME (Milli- seconds/ Cycles)</u>	<u>SYSTEMS OR EQUIPMENT POWERED</u>
a. <u>Type 2 Molded Case Circuit Breakers</u> †					
1. 1B219022	HFB-M	150/30	270	NA	HVB311F031A RRP "A" DSCH VLV
2. 1B237043	HFB-M	150/30	270	NA	HVB311F023A Recirc. PP "A" Suction
3. 1B236052	HFB-M	150/30	215	NA	HVE111F009 RHR Pump Suction Shutoff
4. 1B236023	HFB-M	150/3	18	NA	HV12603 Containment Inst. Compressor Suct. Iso. Valve
5. 1B236011	HFB-M	150/30	250	NA	1V413A - Drywell Area Unit Cooler
6. 1B236033	HFB-M	150/30	220	NA	1V414A - Drywell Area Unit Cooler
7. 1B236021	HFB-M	150/30	175	NA	1V417A - Drywell Area Unit Cooler
8. 1B236032	HFB-M	150/30	180	NA	1V412A - Drywell Area Unit Cooler
9. 1B236042	HFB-M	150/30	150	NA	1V411A - Drywell Area Unit Cooler
10. 1B236043	HFB-M	150/30	160	NA	1V416A - Drywell Area Unit Cooler
11. 1B236082	HFB-M	150/30	150	NA	1V415A - Drywell Area Unit Cooler
12. 1B236102	HFB-M	150/3	8	NA	HVB211F001 - Reactor Head Vent Valve
13. 1B236053	HFB-M	150/5	45	NA	HVG331F001 - Reac. Wtr. Clean up inboard isolation
14. 1B237072	HFB-M	150/5	25	NA	HVB211F016 - Main Stm. Line Drain Inbd. Iso.

ATTACHMENT B p. 4 of 8

TABLE 3.8.4.1-1 (Continued)
PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

<u>CIRCUIT BREAKER</u> <u>LOCATION</u>	<u>TYPE*</u>	<u>FRAME</u> <u>RATING/UL</u>	<u>TRIP</u> <u>SET POINT</u> <u>(Amperes)</u>	<u>RESPONSE</u> <u>TIME</u> <u>(Milli-</u> <u>seconds/</u> <u>Cycles)</u>	<u>SYSTEMS OR</u> <u>EQUIPMENT POWERED</u>
<u>Type 2 Molded Case Circuit Breakers (Continued)*</u>					
15. 1B219023	HFB-M	150/10	80	NA	HVB311F032A - RRP "A" Dsch Byps Vlv
16. 1B237073	HFB-M	150/10	60	NA	HVE111F022 - Reac Heater Spray Shutoff Inboard
17. 1B237082	HFB-M	150/10	70	NA	HVE411F002 - HPCI Stm. Supply Inboard Iso.
18. 1B246011	HFB-M	150/30	270	NA	HVB311F023B - Reactor Recirc Pump Suction
19. 1B229022	HFB-M	150/30	270	NA	HVB311F031B - Reactor Recirc Pump Disch
20. 1B246022	HFB-M	150/5	40	NA	HVE511F007 - RCIC Inbrd Steam Line 150
21. 1B246051	HFB-M	150/30	170	NA	ZV417B - Drywell Area Unit Clr Fan
22. 1B246061	HFB-M	150/30	170	NA	ZV414B - Drywell Area Unit Clr Fan
23. 1B229023	HFB-M	150/10	70	NA	HVB311F032B - RRP "B" Dsch Byps Vlv
24. 1B246072	HFB-M	150/30	170	NA	ZV415B - Drywell Area Unit Clr Fan
25. 1B246081	HFB-M	150/30	170	NA	ZV416B - Drywell Area Unit Clr. Fan
26. 1B246091	HFB-M	150/30	160	NA	ZV411B - Drywell Unit Clr. Fan
27. 1B246102	HFB-M	150/30	215	NA	ZV413B - Drywell Area Unit Clr. Fan
28. 1B246103	HFB-M	150/30	170	NA	ZV412B - Drywell Area Unit Clr. Fan

TABLE 3.8.4.1-1 (Continued)
PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

<u>CIRCUIT BREAKER</u> <u>LOCATION</u>	<u>TYPE*</u>	<u>FRAME</u> <u>RATING/UL</u>	<u>TRIP</u> <u>SET POINT</u> <u>(Amperes)</u>	<u>RESPONSE</u> <u>TIME</u> <u>(Milli-</u> <u>seconds/</u> <u>Cycles)</u>	<u>SYSTEMS OR</u> <u>EQUIPMENT POWERED</u>
<u>Type 2 Molded Case Circuit Breakers (Continued)†</u>					
29. 1B246112	HFB-M	150/3	8	NA	HVB211F002 - Reactor Head Vent Valve
30. 1B246113	HFB-M	150/3	8	NA	HVB211F005 - Reactor Heat Vent Valve
31. 1B246062	HFB-M	150/3	20	NA	HV11346 - RBCCW Containment Iso. Vlv.
32. 1B246012	HFB-M	150/3	18	NA	HV11345 - RBCCW Containment Iso. Vlv.
33. 1B253063	HFB-M	150/5	18	NA	ZP402A - Drywell Floor Draw Sump "A" PP "A"
34. 1B253053	HFB-M	150/5	27	NA	HVG331F102 - Line Suction Inside Control Valve
35. 1B263043	HFB-M	150/3	10	NA	HVG331F100 - RWCU Loop "1A" Suction
36. 1B263053	HFB-M	150/3	12	NA	HVG331F106 - RWCU Loop "B" Suction
37. 1B26308X	HFB-M	150/3	11	NA	HVG331F101 - RWCU Sys Vessel Drain Line Recirc.
38. 1B263071	HFB-M	150/5	20	NA	ZP4023 - Drywell Floor Drain Sump "A" PP "B"
39. 1B253043	HFB-M	150/5	20	NA	1P403A - Drywell Floor Drain Sump "B" Pump "A"
40. 1B263072	HFB-M	150/5	20	NA	ZP403B - Drywell Floor Drain Sump "B" PP "B"
41. 1B253021	HFB-M	150/50	480	NA	HVB211F011A Feedwater Inlet Shutoff Valve
42. 1B263023	HFB-M	150/50	480	NA	HVB211F011B - Feedwater Inlet Shutoff Valve

*HFB-M - Westinghouse Type HFB, magnetic only

† Each location no. represents two breakers, A and B, in series.

ATTACHMENT B p. 6 of 8

TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

<u>CIRCUIT BREAKER</u> <u>LOCATION</u>	<u>TYPE**</u>	<u>FRAME</u> <u>RATING/UL</u>	<u>RESPONSE</u> <u>TIME</u> <u>(Milli-</u> <u>seconds/</u> <u>Cycles)</u>	<u>SYSTEMS OR</u> <u>EQUIPMENT POWERED</u>
b. <u>Type 3 Molded ^{Case} Core</u> <u>Circuit Breakers</u>				
1. 1B236103	KB-TM	250/150	NA	1/E440C - Containment Recomb Elect. Htr. Ass'y.
2. 1B246033	KB-TM	250/150	NA	1/E440D - Containment Recomb Elect. Htr. Ass'y.
3. 1B226103	KB-TM	250/150	NA	1/E440B - Containment Recomb Elect. Htr. Ass'y.
4. 1B216092	KB-TM	250/150	NA	1/E440A - Containment Recomb. Elect. Htr. Ass'y.

**KB-TM - Westinghouse Type KB, Thermal-magnetic

TABLE 3.8.4.2-1 (Continued)

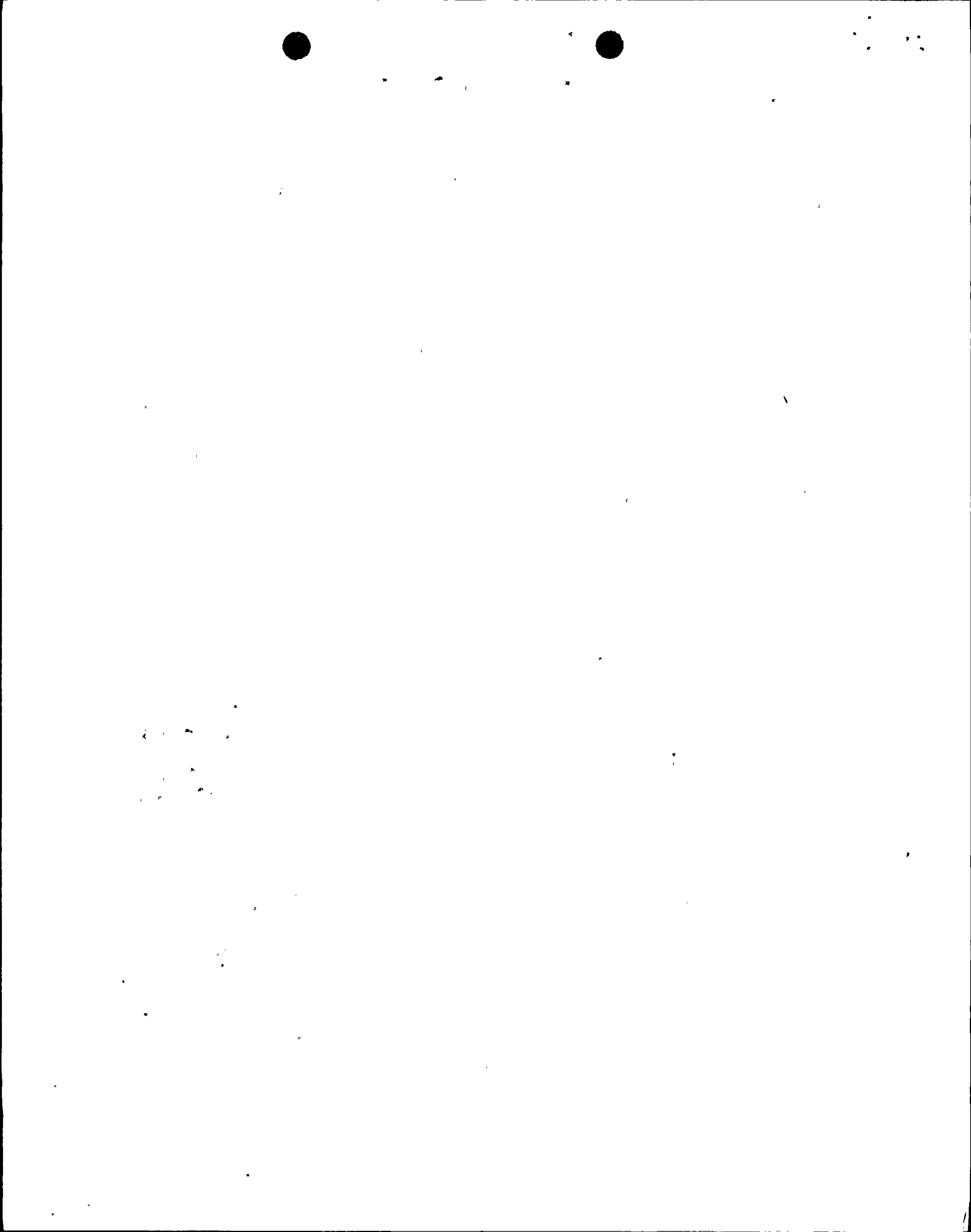
MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

<u>VALVE NUMBER</u>	<u>SYSTEM(S) AFFECTED</u>
HV-E11-1F028B	RHR
HV-E11-1F047B	RHR
HV-E11-1F016B	RHR
HV-E11-1F003B	RHR
HV-E11-1F017B	RHR
HV-E21-1F031B	CS
HV-E21-1F001B	CS
HV-E11-1F103B	RHR
HV-E11-1F075B	RHR
HV-E11-1F073B ^B	RHR
HV-E11-1F006D	RHR
HV-E11-1F004D	RHR
HV-E11-1F024B	RHR
HV-E21-1F015B	CS
HV-E21-1F004B	CS
HV-E21-1F005B	CS
HV-E32-1F001K	MSIV
HV-E32-1F002K	MSIV
HV-E32-1F003K	MSIV
HV-E32-1F001P	MSIV
HV-E32-1F002P	MSIV
HV-E32-1F003P	MSIV
HV-E32-1F001B	MSIV
HV-E32-1F002B	MSIV
HV-E32-1F003B	MSIV
HV-E32-1F001F	MSIV
HV-E32-1F002F	MSIV
HV-E32-1F003F	MSIV
HV-E32-1F006	MSIV
HV-E32-1F007	MSIV
HV-E32-1F008	MSIV
HV-E32-1F009	MSIV
v- HV-E51-1F045	RCIC
HV-E51-1F012	RCIC
HV-E51-1F013	RCIC
HV-15012	RCIC
HV-E51-1F046	RCIC
HV-E51-1F008	RCIC
HV-E51-1F031	RCIC
HV-E51-1F010	RCIC

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

<u>VALVE NUMBER</u>	<u>SYSTEM(S) AFFECTED</u>
HV-E51-1F019	RCIC
HV-E51-1F060	RCIC
HV-E51-1F059	RCIC
HV-E51-1F022	RCIC
HV-E51-1F062	RCIC
HV-E41-1F012	HPCI
HV-E41-1F001	HPCI
HV-E41-1F011	HPCI
HV-E41-1F006	HPCI
HV-E41-1F079	HPCI
HV-E41-1F059	HPCI
HV-E41-1F004	HPCI
HV-E41-1F003	HPCI
HV-E41-1F042	HPCI
HV-E41-1F075	HPCI
HV-E41-1F008	HPCI
HV-E41-1F007	HPCI
HV-E41-1F066	HPCI
HV-G33-1F004	RWCU
HV-B21-1F019	NSSS
HV-E11-1F008	RHR
HV-E11-1F023	RHR
HV-E11-1F049	RHR
HV-B31-1F032A	RHR RX RECIRC
HV-B31-1F032B	RHR RX RECIRC
HV-B31-1F031A	RHR RX RECIRC
HV-B31-1F031B	RHR RX RECIRC



PLANT SYSTEMS

3/4.7.2 CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.2 Two independent control room emergency outside air supply system subsystems shall be OPERABLE with each subsystem consisting of:

- a. One makeup fan, and
- b. One filter train.

APPLICABILITY: All OPERATIONAL CONDITIONS and *.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2 or 3 with one control room emergency outside air supply subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days or be in-at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In OPERATIONAL CONDITION 4, 5 or *:
 1. With one control room emergency outside air supply subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days or initiate and maintain operation of the OPERABLE subsystem in the pressurization mode of operation.
 2. With both control room emergency outside air supply subsystems inoperable, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.
- c. The provisions of Specification 3.0.3 are not applicable in Operational Condition *.

SURVEILLANCE REQUIREMENTS

4.7.2 Each control room emergency outside air supply subsystem shall be demonstrated OPERABLE:

- a. 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 subsystem operates for at least 10 hours with the heaters OPERABLE.
- b. 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 subsystem by:

~~1. Verifying that with the subsystem operating at a flow rate of 5810 cfm \pm 10% and exhausting through the HEPA filters and charcoal adsorbers, the total bypass flow of the system to the facility vent, including leakage through the subsystem diverting valve, is less than or equal to 1% when the subsystem is tested by admitting cold DOP at the system intake~~

*When irradiated fuel is being handled in the secondary containment.

SURVEILLANCE REQUIREMENTS (Continued)

1. ~~2.~~ Verifying that the subsystem satisfies 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 5810 cfm \pm 10%.
 2. ~~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.
 3. ~~4.~~ Verifying a subsystem flow rate of 5810 cfm \pm 10% during subsystem operation when tested in accordance with ANSI N510-1975.
- c. 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.
- d. At least once per 18 months by:
1. Verifying that the pressure drop across the combined prefilter, upstream and downstream HEPA filters and charcoal adsorber banks is less than 9.1 inches Water Gauge while operating the subsystem at a flow rate of 5810 cfm \pm 10%.
 2. Verifying that on each of the below isolation mode actuation test signals, the subsystem automatically switches to the isolation mode of operation and the isolation dampers close within 8 seconds:
 - a) Outside air intake chlorine - high,
 - b) Outside air intake radiation - high, and
 - c) Reactor Building isolation.
 3. Verifying that on each of the below pressurization mode actuation test signals, the subsystem automatically switches to the pressurization mode of operation and the control structure is maintained at a positive pressure of 1/8 inch W.G. relative to the outside atmosphere during subsystem operation at a flow rate less than or equal to 5810 cfm:
 - a) Reactor Building isolation, and
 - b) Outside air intake radiation - high.
 4. Verifying that the heaters dissipate 30 ± 3.0 Kw when tested in accordance with ANSI N510-1975.

TABLE 4.4.6.1.3-1

REACTOR VESSEL MATERIAL SURVEILLANCE PROGRAM-WITHDRAWAL SCHEDULE

<u>SPECIMEN HOLDER</u>	<u>VESSEL LOCATION</u>	<u>LEAD FACTOR</u>	<u>WITHDRAWAL TIME (EPY)</u>
131C7717G1	300°	0.6	10 8
131C7717G2	120°	0.6	20 24
131C7717G3	30°	0.6	Spare

Attachment D

TABLE 3.3.9-2
FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
a. Reactor Vessel Water Level-High	< 54.0 inches	< 54.0 inches 55.5

ATTACHMENT E

