

2.10 UNIT 2 SUMMARY OF REQUIRED ACTIONS

INTRODUCTION

All actions necessary to shut down Unit 2 which are required as a result of a fire in each fire area are indicated in the fire area summaries found in 9.5.2.10.1 or 9.5.2.10.2.

Each fire area summary, developed from the pertinent fire area analysis, indicates the path and diesel generators to be used for shutdown. Each summary lists all equipment associated with the designated shutdown path for the fire area which may be affected as a result of a fire in the subject fire area. Any action required to ensure satisfactory operation of the equipment for safe shutdown is listed with the equipment.

Certain fire areas contain no Unit 2 safe shutdown circuits or equipment. The only actions required for a fire in such an area are those associated with generic issues.

Safe shutdown equipment that would be affected by generic issues is analyzed. Such resulting actions required for this equipment are listed in the summary found in 9.5.10.1. These actions apply to all fire areas utilizing the indicated path of shutdown.

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9.5.2.10.1 SUMMARIES FOR FIRE AREAS NOT CONTAINING UNIT 2 SAFE SHUTDOWN CIRCUITS OR EQUIPMENT

This su	mmary is a	applicable	to the follo	wing fire a	areas:			
0002	0703	1003	1018	1301	1409	1608	1806	2211
0025	0704	1004	1019	1302	1410	1609	1807	2301
0028			•					
0031	0802	1005	1023	1401	1411	1610	2003	2606
0201	0803	1006	1101	1402	1412	1611	2008	2608
0401	0804	1008	1102	1403	1601	1612	2009	2801
	0805	1009	1103	1404	1602	1801	2010	2802
0601	0806	1010	1201	: 1405.	1603	1802	2102	2803 -
0602	0807	1013	1205 -	1406	1604	1803	2103	2804
0603	8080	1015	1210	1407	1605	1804	2201	2807
0702	0809		. 1211	1408	1606	1805	2210	
	0810			٠.		•		•



9.5.2.10.1.1 LOSS-OF-OFFSITE POWER AND DRYWELL COOLING

In order to shut down Unit 2 following a fire with a loss of offsite power and a loss of drywell cooling, the operator may use path 1 or 2 shutdown procedures using Diesel Generator 2A or 2C and perform the following actions:

Affected <u>Equipment</u>	Required Actions
Path 1	
2E11-C001A	Place switch 2E11-S19A, in panel 2H11-P601, in the MANUAL OVERRIDE position.
2R22-S016	 Once the diesel is online, push RESET switch 2R20M-S28 in panel 2H11-P652 (600 V BUS 2C UV LOCKOUT RESET) per procedure 34SO-R43-001-2S.
	2. Close the 3 ac supply breakers to the battery chargers using either of the following:
	a. Operating switches 2R20M-CS12, 2R20M-CS13, and 2R20M-CS14 in panel 2H21-P245, or
-	b. Manually closing the breakers in Frame 7 of 2R23-S003 per procedure 34S0-R42-001-2S.
	These actions must be performed within 2 hours of LOSP to ensure that power is available to 125/250 V dc switchgear 2A (2R22-S016).
Path 2	
2E11-C001B	Place switch 2E11-S19B, in panel 2H11-P601, in the MANUAL OVERRIDE position.
2P22_S017	1 Once the diesel is online push RESET switch 2R20M-S29 in



- 1. Once the diesel is online, push RESET switch 2R20M-S29 in panel 2H11-P652 (600 V BUS 2D UV LOCKOUT RESET) per procedure 34SO-R43-001-2S.
- 2. Close the 3 ac supply breakers to the battery chargers using either of the following:

- a. Operating switches 2R20M-CS19, 2R20M-CS20, and 2R20M-CS21 in panel 2H21-P246, or
- b. Manually closing the breakers in Frame 3 of 2R23-S004 per procedure 34SO-R42-001-2S.

These actions must be performed within 2 hours of LOSP to ensure that power is available to 125/250 V dc switchgear 2B (2R22-S017).

9.5.2.10.1.2 RPV OVERFILL DUE TO HPCI RUNAWAY

To prevent RPV overfill due to HPCI runaway, the operator must perform one of the following actions:

Affected <u>Equipment</u>	Required Actions	
2E41-F001	Close valve via switch S3 in panel 2H11-P601,	•
• .	or	`
2E41-F002	Close valve via switch S1 in panel 2H11-P601,	
• .	or	
2E41-F003	Close valve via switch S2 in panel 2H11-P601,	
•	or	
2E41-F124	Trip the HPCI turbine by energizing trip solenoid 2E41-F124 switch S19 in panel 2H11-P601. This switch must be held in t position until one of the valves in the HPCI steam supply line is closed, or links TT-75 and TT-76 in panel 2H11-P601 are open breaker 25 in panel 2R25-S002 is opened.	he TRIP is
	or	
2E41-F3052	Open links TT-75 and TT-76 in panel 2H11-P601, or open bre in panel 2R25-S002, to fail the HPCI governor valve closed an prevent any subsequent automatic restarts.	

9.5.2.10.1.3 DRYWELL OVERPRESSURIZATION DUE TO FAILURE OF THE NITROGEN INERTING SYSTEM

In order to offset the affects of inerting containment isolation valves that have failed open following a fire in fire area 2205, the operator must perform the following actions:

Affected Equipment	Required Actions
2T48-F111 \	Manually close valve 2T48-F111



9.5.2.10.1.4 LOSS OF DRYWELL TEMPERATURE INDICATION

If drywell temperature indication is lost and the drywell cooling system can not be operated, per existing plant procedures the operators should commence an orderly depressurization and the plant should be placed in the SDC or ASDC mode of operation.

9.5.2.10.1.5 LOSS OF INTAKE STRUCTURE VENTILATION

To ensure operation of Intake Structure ventilation following a fire outside the Intake Structure, perform one of the following manual actions:

Affected Equipment	Required Actions
1X41-C009A	Open 30-A breaker SA in 1R23-S003, Frame 3, and verify closed or close 1R23-S003, Frame 4B.
1X41-C009B	Open 30-A breaker SA in 1R23-S004, Frame 8, and verify closed or close 1R23-S004, Frame 4B.
1X41-C009C	Open 30-A breaker SA in 2R23-S003, Frame 2, and verify closed or close 2R23-S003, Frame 4B.

9.5.2.10.1.6 LOSS OF WIDE RANGE RPV LEVEL INDICATION

In order to supply Division I power to RPV Level Indicator 2C32-R655 for a Path 1 shutdown, the operator must perform the following actions:

Affected	
Equipment	Required Actions
2C32-R655	Open links AAA-11 and AAA-12 in panel 2H11-P612 and close links
	HH-48 and HH-49 in panel 2H11-P601.

9.5.2.10.1.7 DIESEL GENERATOR LOADING

In order to shut down Unit 2 following a fire with a loss of offsite power, the operator must use Diesel Generator 2A and/or 2C and perform the following actions to ensure the loading is below the maximum rating of 3250 kW:

Equipment	Required Actions		•
Path 1			
2R43-S001A	Manually shed all but t	he following safe shutd	own loads from

2R22-S005:



LOAD	2R22-S005 FR.
RHR Pump 2A (2E11-C002A)	7 .
RHR Service Water Pump 2A (2E11-C001A)	3
Plant Service Water Pump 2A (2P41-C001A)	4
600V SWGR 2C (2R23-S003)	. 2

If RHR loop A is unavailable and Core Spray Pump 2A is needed for injection, trip RHR Pump 2A and RHR Service Water Pump 2A prior to loading Core Spray Pump 2A.

LOAD	•	2R22-S005 FR.
Core Spray Pump 2A (2E2	21-C001A)	9

Path 2

2R43-S001C

Manually shed all but the following safe shutdown loads from 2R22-S007:

LOAD	2R22-S007 FR.
RHR Pump 2B (2E11-C002B)	8
RHR Service Water Pump 2B (2E11-C001B)	3
Plant Service Water Pump 2B (2P41-C001B)	5
600V SWGR 2D (2R23-S004)	. 2

If RHR loop B is unavailable and Core Spray Pump 2B is needed for injection, trip RHR Pump 2B and RHR Service Water Pump 2B prior to loading Core Spray Pump 2B.

LOAD	2R22-S007 FR.
Core Spray Pump 2B (2E21-C001B)	9

Path 3

2R43-S001A

Manually shed all but the following safe shutdown loads from 2R22-S005:

LOAD	2R22-S005 FR.
Plant Service Water Pump 2A (2P41-C001A)	4
600V SWGR 2C (2R23-S003)	. 2

2R43-S001C

Manually shed all but the following safe shutdown loads from 2R22-S007:

LOAD	2R22-S007 FR.
RHR Pump 2B (2E11-C002B)	8
RHR Service Water Pump 2B (2E11-C001B)	. 3
Plant Service Water Pump 2B (2P41-C001B)	5
600V SWGR 2D (2R23-S004)	2

9.5.2.10.1.8 LOSS OF POWER TO 2R24-S018A/B

In order to shut down Unit 2 following a fire with a loss of power to 2R24-S018A or 2R24-S018B, the operator may use path 1,2, or 3 shutdown procedures and perform the following actions:

Affected Equipment	Required Actions	•	
<u> 12quipment</u>	<u>Nequired Fietions</u>		
Path 1			
2R24-S018A	In the event of a loss of power to 2E11-F018A to isolate RHR minump 2E11-C002A is started are the handwheel.	nimum flow line	as required after
Path 2			
2R24-S018B	In the event of a loss of power to 2E11-F018B to isolate RHR min pump 2E11-C002B is started an handwheel.	nimum flow line a	as required after

Path 3

2R24-S018B In the event of a loss of power to 2R24-S018B, manually close valve 2E11-F018B to isolate RHR minimum flow line as required after, pump 2E11-C002B is started and manually open 2E11-F015B with the handwheel.

9.5.2.10.2 SUMMARIES FOR FIRE AREAS CONTAINING SAFE SHUTDOWN CIRCUITS OR EQUIPMENT

FIRE AREA 0001

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.



FIRE AREA 0007

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 0014

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C and perform the following actions:

Affected Equipment

Required Actions



Open links AAA-11 & 12 in panel 2H11-P612 and close links HH-68 and 69 in panel 2H11-P601.





FIRE AREA 0014 (Cont'd.)

Affected Equipment

Required Actions

2P41-R601B

Use local indication to monitor pump 2P41-C001B operation.

2R25-S065

To mitigate the effects of a loss of 2R25-S065, perform the manual actions as listed for 2E11-F068B, 2T41-B002B, 2T41-B005B, and 2T47-R627.

Note: Performing the manual action for 2E11-F068B will also insure operation of 2C32-R655.

2T41-B002B

Start RHR and CS pump room cooler 2T41-B002B by placing switch

2T41-S52B, in panel 2H11-P654, in the RUN position.

2T41-B005B

Start HPCI pump room cooler 2T41-B005B by placing switch

2T41-S35B, in panel 2H11-P654, in the RUN position.



FIRE AREA 0014 (Cont'd.)

Affected	٠
Equipmen	<u>1t</u>

Required Actions

2T47-R627

Open links TB16-43 and 44 and close links TB15-43 and 44 in panel

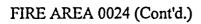
2H11-P650.

FIRE AREA 0024

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 3 shutdown procedures using Diesel Generators 2A and 2C and perform the following actions:

Affected Equipment	Required Actions
2B21-F013A	Open breaker 26 in distribution panel 2R25-S001 and breaker 22 in distribution panel 2R25-S002.
2B21-F013B	Place transfer switch 2C82A-S15 in the EMERGENCY position and control 2B21-F013B from remote shutdown panel 2C82-P001 using control switch 2C82A-S63.
2B21-F013C	Open breaker 26 in distribution panel 2R25-S001 and breaker 22 in distribution panel 2R25-S002.
2B21-F013D	Open breaker 22 in distribution panel 2R25-S002.
2B21-F013E	Open breaker 26 in distribution panel 2R25-S001 and breaker 22 in distribution panel 2R25-S002.
2B21-F013F	Place transfer switch 2C82A-S15 in the EMERGENCY position and control 2B21-F013F from remote shutdown panel 2C82-P001 using control switch 2C82A-S48.
2B21-F013G	Open breaker 22 in distribution panel 2R25-S002.
2B21-F013H	Open breaker 26 in distribution panel 2R25-S001 and breaker 22 in distribution panel 2R25-S002.
2B21-F013K	Open breaker 26 in distribution panel 2R25-S001 and breaker 22 in distribution panel 2R25-S002.





Affected Equipment	Required Actions
2B21-F013L	Open breaker 26 in distribution panel 2R25-S001 and breaker 22 in distribution panel 2R25-S002.
2B21-F013M	Open breaker 26 in distribution panel 2R25-S001 and breaker 22 in distribution panel 2R25-S002.
2B21-F022A	Open breaker CB5A in RPS distribution cabinet 2C71-P001 and open breaker 17 in distribution cabinet 2R25-S001.
2B21-F022B	Open breaker CB5A in RPS distribution cabinet 2C71-P001 and open breaker 17 in distribution cabinet 2R25-S001.
2B21-F022C	Open breaker CB5A in RPS distribution cabinet 2C71-P001 and open breaker 17 in distribution cabinet 2R25-S001.
2B21-F022D	Open breaker CB5A in RPS distribution cabinet 2C71-P001 and open breaker 17 in distribution cabinet 2R25-S001.
2E11-C001B	1. Place transfer switch 2C82A-S13, in remote shutdown panel 2C82-P001, in the EMERGENCY position.
	 Verify closed or close the control circuit breaker in Frame 3 of 4.16 kV switchgear 2R22-S007.
	 Control 2E11-C001B from remote shutdown panel 2C82-P001 using control switch 2C82A-S61.
2E11-C002B	 Place transfer switch 2C82A-S9, in remote shutdown panel 2C82-P001, in the EMERGENCY position.
	 Verify closed or close the control circuit breaker in Frame 8 of 4.16 kV switchgear 2R22-S007.
	3. Control pump 2E11-C002B from remote shutdown panel 2C82-P001 using control switch 2C82A-S31.
2E11-F003B	Place transfer switch 2C82A-S12 in the EMERGENCY position and control 2E11-F003B from remote shutdown panel 2C82-P001 using

control switch 2C82A-S40.

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Affected Equipment	Required Actions
2E11-F004B	Place transfer switch 2C82A-S10 in the EMERGENCY position and control 2E11-F004B from remote shutdown panel 2C82-P001 using control switch 2C82A-S32.
2E11-F006B	Place transfer switch 2C82A-S10 in the EMERGENCY position and control 2E11-F006B from remote shutdown panel 2C82-P001 using control switch 2C82A-S33.
2E11-F006D	Place transfer switch 2C82A-S10 in the EMERGENCY position and control 2E11-F006D from remote shutdown panel 2C81-P001 using control switch 2C82A-S55.
2E11-F007B	Place transfer switch 2C82A-S80 in the EMERGENCY position and control 2E11-F007B from remote shutdown panel 2C82-P001 using control switch 2C82A-S81.
2E11-F008	Place transfer switch 2C82A-S1 in the EMERGENCY position and control 2E11-F008 from the remote shutdown panel 2C82-P001 using control switch 2C82-S45.
2E11-F009	Place transfer switch 2C82A-S53 in the EMERGENCY position and control 2E11-F009 from remote shutdown panel 2C82-P001 using control switch 2C82A-S59.
2E11-F011B	Place transfer switch 2C82A-S11 in the EMERGENCY position and control 2E11-F011B from remote shutdown panel 2C82-P001 using control switch 2C82A-S36.
2E11-F015B	Place transfer switch 2C82A-S13 in the EMERGENCY position and control 2E11-F015B from remote shutdown panel 2C82-P001 using control switch 2C82A-S42.
2E11-F016B	Place transfer switch 2C82A-S11 in the EMERGENCY position and control 2E11-F016B from remote shutdown panel 2C82-P001 using control switch 2C82A-S38.
2E11-F017B	Place transfer switch 2C82A-S13 in the EMERGENCY position and control 2E11-F017B from remote shutdown panel 2C82-P001 using control switch 2C82A-S43.



FIRE AREA 0024	Cont a.)
Affected Equipment	Required Actions
2E11-F028B	Place transfer switch 2C82A-S14 in the EMERGENCY position and control 2E11-F028B from remote shutdown panel 2C82-P001 using control switch 2C82A-S47.
2E11-F047B	Place transfer switch 2C82A-S17 in the EMERGENCY position and control 2E11-F047B from remote shutdown panel 2C82-P001 using control switch 2C82A-S34.
2E11-F048B	Place transfer switch 2C82A-S12 in the EMERGENCY position and control 2E11-F048B from remote shutdown panel 2C82-P001 using control switch 2C82A-S41.
2E11-F049	Remove power from valve 2E11-F049 by opening the breaker in MCC 2R24-S022, compartment 9C, and verify closed or manually close 2E11-F049 using the handwheel.
2E11-F065B	Open breaker 62 in panel 2R25-S037.
2E11-F068B	Open breaker MCC 2R24-S012, compartment 11C, and modulate 2E11-F068B locally using the handwheel as required.
2E11-F073B	Place transfer switch 2C82A-S14 in the EMERGENCY position and control 2E11-F073B from remote shutdown panel 2C82-P001 using control switch 2C82A-S46.
2E11-F104B	Open the circuit breaker in MCC 2R24-S012, compartment 16A, and locally verify valve 2E11-F104B is closed or close it manually using the handwheel prior to initiating RHR system operation.
2E11-F119B	Open breaker MCC 2R24-S012, compartment 17A, and locally verify valve 2E11-F119B is closed or close it manually using the handwheel prior to initiating the suppression pool cooling or shutdown cooling modes of RHR loop B operation.
2E41-C001	Open breaker 25, in panel 2R25-S002.
2E51-C001	Isolate 2E51-F524 by placing transfer switch 2C82A-S5, in remote shutdown panel 2C82-P001, in the EMERGENCY position and open breaker 31 in panel 2R25-S001. 2E51-F524 may then be controlled using switch 2C82A-S28 in panel 2C82-P001. Isolate subcomponent 2E51-N003 from the fire area by placing transfer switch 2C82A-S7, in remote shutdown panel 2C82-P001, in the EMERGENCY position.

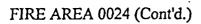
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Affected Equipment	Required Actions
2E51-C002-1	Place transfer switch 2C82A-S6, in remote shutdown panel 2C82-P001, in the EMERGENCY position and control 2E51-C002-1 using control switch 2C82A-S29.
2E51-F003	Open circuit breaker 14 in distribution panel 2R25-S001.
2E51-F007	Place transfer switch 2C82A-S53 in the EMERGENCY position and control valve 2E51-F007 from remote shutdown panel 2C82-P001 using control switch 2C82A-S58.
2E51-F008	Place transfer switch 2C82A-S2 in the EMERGENCY position and control valve 2E51-F008 from remote shutdown panel 2C82-P001 using control switch 2C82A-S20.
2E51-F010	Place transfer switch 2C82A-S3 in the EMERGENCY position and control valve 2E51-F010 from remote shutdown panel 2C82-P001 using control switch 2C82A-S21.
2E51-F012	Place transfer switch 2C82A-S4 in the EMERGENCY position and control valve 2E51-F012 from remote shutdown panel 2C82-P001 using control switch 2C82A-S24.
2E51-F013	Place transfer switch 2C82A-S4 in the EMERGENCY position and control 2E51-F013 from remote shutdown panel 2C82-P001 using control switch 2C82A-S26.
2E51-F019	Place transfer switch 2C82A-S3 in the EMERGENCY position and control 2E51-F019 from remote shutdown panel 2C82-P001 using control switch 2C82A-S22.
2E51-F022	Place transfer switch 2C82A-S4 in the EMERGENCY position and control 2E51-F022 from remote shutdown panel 2C82-P001 using control switch 2C82A-S23.
2E51-F029	Place transfer switch 2C82A-S3 in the EMERGENCY position and control 2E51-F029 from remote shutdown panel 2C82-P001 using control switch 2C82A-S27.
2E51-F031	Place transfer switch 2C82A-S6 in the EMERGENCY position and control 2E51-F031 from remote shutdown panel 2C82-P001 using control switch 2C82A-S54.



TINE AICA 0024	(Conta.)
Affected Equipment	Required Actions
2E51-F045	Place transfer switch 2C82A-S5 in the EMERGENCY position and control 2E51-F045 from remote shutdown panel 2C82-P001 using control switch 2C82A-S25.
2E51-F046	Place transfer switch 2C82A-S5 in the EMERGENCY position and control 2E51-F046 from remote shutdown panel 2C82-P001 using control switch 2C82A-S51.
2E51-F104	Open the breaker in 2R24-S011, compartment 15A, and locally verify valve 2E51-F104 is open or open it manually using the handwheel prior to RCIC operation.
2E51-F105 .	Open the breaker in 2R24-S012, compartment 17B, and locally verify valve 2E51-F105 is open or open it manually using the handwheel prior to RCIC operation.
2E51-F524	Place transfer switch 2C82A-S5, in remote shutdown panel 2C82-P001, in the EMERGENCY position and control 2E51-F524 from remote shutdown panel 2C82-P001using control switch 2C82A-S28.
2P41-C001A	 Open control circuit breaker in Frame 4 of 4.16 kV switchgear 2R22-S005.
	2. Verify closed or close main power feeder breaker in 4.16 kV switchgear 2R22-S005, Frame 4.
	These manual actions must be accomplished in a timely manner to ensure cooling for Diesel Generator 2A.
2P41-C001B	1. Place transfer switch 2H21-S70 in the EMERGENCY position in remote shutdown panel 2H21-P173.
	2. Verify closed or close control circuit breaker in Frame 5 of 4.16 kV switchgear 2R22-S007.

3. Control 2P41-C001B from remote shutdown panel 2H21-P173 using control switch 2H21-S72.

These manual actions must be accomplished in a timely manner to ensure cooling for Diesel Generator 2C.



Affected Equipment	Required Actions
2P41-F066	Open breaker 19, in 2R25-S064. This manual action must be accomplished within 30 minutes of initiating RCIC.
2P41-F316A	Open the breaker in MCC 2R24-S025, compartment 4D, and locally ver valve 2P41-F316A is closed or close it manually using the handwheel.
2P41-F316B	Open the breaker in MCC 2R24-S027, compartment 4D, and locally vervalve 2P41-F316B is closed or close it manually using the handwheel.
2P70-F001A	Open breaker 35 in panel 2R25-S001.
2P70-F004	Open breaker 6 in distribution panel 2R25-S064.
2P70-F005	Open breaker 23 in distribution panel 2R25-S065.
2R22-S005	1. Open 30 amp breaker AB in 2R22-S005, Frame 1, and then manually open or verify open breaker 135554.
	2. Open 30 amp breaker AB in 2R22-S005, Frame 10, and then manually open or verify open breaker 135544.
	3. Open 30 amp breaker AB in 2R22-S005, Frame 6, and then manually close breaker 135530.
2R22-S007	1. Open 30 amp breaker AB in 2R22-S007, Frame 1, and then manually open or verify open breaker 135594.
	2. Open 30 amp breaker AB in 2R22-S007, Frame 10, and then manually open or verify open breaker 135584.
	3. Open 30 amp breaker AB in 2R22-S007, Frame 7, and then manually close breaker 135540.
2R22-S016	Open breaker 29 in panel 2R25-S001, and verify closed or close the three 100 amp breakers in Frames 7T, 7M, and 7B of 2R23-S003.
2R22-S017	Open breaker 19 in panel 2R25-S002, and verify closed or close the three 100 amp breakers in Frames 3T, 3M and 3B of 2R23-S004.



Affected Equipment	Required Actions	
2R23-S003	1. Open 30 amp breaker SA in 2R23-S003, or verify open breaker 135670 in 2R23-S	•
	Open 30 amp breaker SF in 2R23-S003, or verify closed breaker 135674 in 2R23-	
	3. Open 30 amp breaker AB in 2R22-S005, close or verify closed breaker 135536 in	•
2R23-S004	 Open 30 amp breaker SA in 2R23-S004, or verify open breaker 135680 in 2R23-S 	
	2. Open 30 amp breaker SF in 2R23-S004, I or verify closed breaker 135684 in 2R23-	• • • • • • • • • • • • • • • • • • •
	3. Open 30 amp breaker AB in 2R22-S007, close or verify closed breaker 135556 in 2	•
2R24-S011	Open breaker 29 in panel 2R25-S001, and ver 2R23-S003, Frame 3M.	erify closed or close breaker
2R24-S012	Open breaker 19 in panel 2R25-S002, and vo 2R23-S004, Frame 4T.	erify closed or close breaker
2R24-S018B	In the event of a loss of power to 2R24-S018 2E11-F018B to isolate RHR minimum flow 2E11-C002B is started and manually open 2 handwheel.	line as required after pump
2R24-S025	Open breaker 29 in panel 2R25-S001, and ve 2R23-S003, Frame 6B.	erify closed or close breaker
2R24-S027	Open breaker 19 in panel 2R25-S002, and ve 2R23-S004, Frame 7B.	erify closed or close breaker



Affected	
Equipment	t

Required Actions

2R43-S001A

- 1. Operate (OPEN) switch SB in panel 2R43-P001A immediately upon entering the diesel building.
- 2. Open slide link B16-4AA in the Diesel Generator 2A relay and terminal box.
- 3. Open slide link B4-5P in the Diesel Generator 2A relay and terminal box.
- 4. Open breaker 14 in 2R25-S004.
- 5. Open slide link TA-1-A7 and place jumper between TA-1-A8 and TA-1-A9 in panel 2R43-P001A.

2R43-S001C

- 1. Operate (OPEN) switch SB in panel 2R43-P001C immediately upon entering the diesel building.
- 2. Open slide link B16-4AA in the Diesel Generator 2C relay and terminal box.
- 3. Open slide link B4-5P in the Diesel Generator 2C relay and terminal box.
- 4. Open breaker 14 in 2R25-S006.
- 5. Open slide link TA-1-A7 and place jumper between TA-1-A8 and TA-1-A9 in panel 2R43-P001C.

2T41-B002B

- 1. Open the breaker in MCC 2R24-S012, compartment 1C.
- 2. Isolate cable TBE806C02 in the MCC by opening the links at terminals P1(CL), 2(C1), N1(N1), 3R(RL), 3G(GL), 10(CL2), and 11(5B).
- 3. Add a jumper across P1 and 2.
- 4. Close the breaker in MCC 2R24-S012, compartment 1C.

This manual action must be accomplished prior to starting RHR pump 2E11-C002B in any operating mode.

FIRE AREA 0024 (Cont'd.)

Affected
Equipment

Required Actions

2T41-B004A

- 1. Open the breaker in MCC 2R24-S011, compartment 4C.
- 2. Isolate cable TBE709C02 in the MCC by opening the links at terminals P1(CL1), 2(C1), N1(N1), 3R(RL), 10(CL), 11(5A), and 3G(GL).
- 3. Add a jumper across terminals P1 and 2.
- 4. Close the breaker in MCC 2R24-S011, compartment 4C.

FIRE AREA 0040

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C and perform the following actions:

Affected <u>Equipment</u>	Required Actions
2C32-R655	Open links AAA-11 & 12 in panel 2H11-P612 and close links HH-68 & 69 in panel 2H11-P601.
2E11-R602B	Open links AAA-11 & 12 in panel 2H11-P612 and close links HH-68 & 69 in panel 2H11-P601.
2E11-R603B	Open links AAA-11 & 12 in panel 2H11-P612 and close links HH-68 & 69 in panel 2H11-P601.

FIRE AREA 0101

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A.

FIRE AREA 0501

In order to shut down Unit 2 following a fire in this fire area, the operator must use RCIC for hot shutdown and the shutdown procedures for the path of cold shutdown equipment unaffected by the fire (path 1 or 2) and perform the following actions:

Affected Equipment	Required Actions
Path 1	
R24-S009	Use the MCC unaffected by the fire.
X41-C009A	Open links 1B-1, 1B-3, 1B-4, and 1B06 in top of 1R24-S009, Frame 1, and install a jumper in Frame 1B from Terminal Point 3 to X1 on the control power transformer.
X41-C009C	Open links 5A-1, 5A-3, 5A-4, and 5A-6 in top of 2R24-S009, Frame 5, and install a jumper in Frame 5A from Terminal Point 3 to Point X1 on the control power transformer.
2E11-C001A	Use the RHR service water pump unaffected by the fire.
2P41-C001A	Use the plant service water pump unaffected by the fire.
2P41-R601A	Use the train of plant service water unaffected by the fire.
2R24-S009	Use the MCC unaffected by the fire.
Path 2	
R4-S010	Use the MCC unaffected by the fire.
X41-C009B	Open links 1B-1, 1B-3, 1B-4, and 1B-6 in top of 1R24-S010, Frame 1, and install a jumper in Frame 1B from Terminal Point 3 to Point X1 on the control power transformer.
2E11-C001B	Use the RHR service water pump unaffected by the fire.
2P41-C001B	Use the plant service water pump unaffected by the fire.
2P41-R601B	Use the train of plant service water unaffected by the fire.



FIRE AREA 0801

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 1016

In order to shutdown Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 1017

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A, and perform the following actions:

Affected
Equipment

Required Actions

2R24-S018A

In the event of a loss of power to 2R24-S018A, manually close valve 2E11-F018A to isolate RHR minimum flow line as required after pump 2E11-C002A is started and manually open 2E11-F015A with the handwheel.



In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 1104

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A, and perform the following actions:

Affected	
Equipmen	ĺ

Required Actions

2R24-S018A

In the event of a loss of power to 2R24-S018A, manually close valve 2E11-F018A to isolate RHR minimum flow line as required after pump 2E11-C002A is started and manually open 2E11-F015A with the handwheel.

FIRE AREA 1105

In order to shut down Unit 2 following a fire in the fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A and perform the following actions:



Affected

<u>Equipment</u> <u>Required Action</u>

2R24-S018A In the event of a loss of power to 2R24-S018A, manually close valve

2E11-F018A to isolate RHR minimum flow line as required after pump

2E11-C002A is started and manually open 2E11-F015A with the

handwheel.

FIRE AREA 1203

In order to shut down Unit 2 following a fire in this area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2004

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2005

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A.

FIRE AREA 2006

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A.

FIRE AREA 2013

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A and perform the following actions:

Affected -

Equipment Required Actions

2C32-R655 Open links AAA-11 & 12 in panel 2H11-P612 and close links HH-48 and

HH-49 in panel 2H11-P601.

2E11-F015A Prior to initiating RHR, open link BB-45, in panel 2H11-P617.

FIRE AREA 2014

In order to shut down Unit 2 following a fire in this area, the operator must use path 1 shutdown procedures using Diesel Generator 2A and perform the following actions:

Affected
Equipment

Required Action

2R24-S018A

In the event of a loss of power to 2R24-S018A, manually close valve 2E11-F018A to isolate RHR minimum flow line as required after pump 2E11-C002A is started and manually open 2E11-F015A with the

handwheel.

FIRE AREA 2015

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C and perform the following actions:

Affected Equipment	Required Actions
2P41-R601B	Use local indication to monitor pump 2P41-C001B operation.
2T41-B002B	Start RHR and CS pump room cooler 2T41-B002B by placing switch 2T41-S52B, in panel 2H11-P654, in the RUN position.
2T41-B005B	Start HPCI pump room cooler 2T41-B005B by placing switch 2T41-S35B, in panel 2H11-P654, in the RUN position.
2T47-R627	Use 2T48-R072 in panel 2H21-P173 to monitor torus temperature.

FIRE AREA 2016

In order to shutdown Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2017

In order to shut down Unit 2 following a fire in this area, the operator must use the path 1 shutdown procedures using Diesel Generator 2A.

FIRE AREA 2018

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.



FIRE AREA 2019

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A, and perform the following actions:

Affected Equipment

Required Actions

2R24-S018A

In the event of a loss of power to 2R24-S018A, manually close valve 2E11-F018A to isolate RHR minimum flow line as required after pump 2E11-C002A is started and manually open 2E11-F015A with the

handwheel.

FIRE AREA 2020

In order to shut down Unit 2 following a fire in this area, the operator must use path 1 shutdown procedures using Diesel Generator 2A and perform the following actions:

Affected Equipment

Required Action

2R24-S018A

In the event of a loss of power to 2R24-S018A, manually close valve 2E11-F018A to isolate RHR minimum flow line as required after pump 2E11-C002A is started and manually open 2E11-F015A with the handwheel.

FIRE AREA 2021

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2023

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2101

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2104

In order to shut down Unit 2 following a fire in this fire area, the operator must use the path 1 procedures using Diesel Generator 2A and perform the following actions:

Affected Equipment	Required Action
2B21-F013A (SRV)	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Close the ADS S/RVs by placing ADS inhibit switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position.
2B21-F013B '	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928.
2B21-F013C	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Close the ADS S/RVs by placing ADS inhibit switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position.
2B21-F013D	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Close this valve by pulling fuse F7K or F8K in panel 2H11-P627.
2B21-F013E	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Close the ADS S/RVs by placing ADS inhibit switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position.
2B21-F013F ·	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928.
2B21-F013G ·	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Close this valve by pulling fuse F7L or F8L in panel 2H11-P627.
2B21-F013H 💉	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Close the ADS S/RVs by placing ADS inhibit switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position.
2B21-F013K	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Close the ADS S/RVs by placing ADS inhibit switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position.

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<u>Eq</u>	ui	pmer	11

Required Action

2B21-F013L (SRV)

Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Close the ADS S/RVs by placing ADS inhibit switch 2B21-C-S7B, in panel 2H11-P602, in the INHIBIT position.

2B21-F013M

Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Close the ADS S/RVs by placing ADS inhibit switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position.

2C32-R655-

Use shutdown cooling mode of RHR for shutdown if wide range RPV level indication is lost.

2E11-C001A

Place switch 2E11-S19A, in panel 2H11-P601, in the MANUAL OVERRIDE position.

2E11-F006D

Prior to entering shutdown cooling, verify closed or close valve 2E11-F006D locally via the handwheel after racking out breaker in frame 7C of MCC 2R24-S012.

2E11-F008

To open valve 2E11-F008 as required to place SDC in service, operate valve manually via the handwheel after racking open the breaker at Frame 6AR of 2R24-S022.

2E11-F009

To open valve 2E11-F009 as required to place SDC in service, operate valve from remote shutdown panel 2C82-P001 by placing switch 2C82-S53 in the EMERGENCY position and placing switch 2C82-S59 in the OPEN position.

Note: The operation of valve 2E51-F007 is also switched to the remote shutdown panel. Therefore, 2E51-F007 must be in the required safe shutdown position of OPEN prior to initiation of the above action.

2E11-F068A

Open breaker in MCC 2R24-S011, compartment 09C, and modulate 2£11-F068A locally using the handwheel as required.

2E11-R602A

Use local indication to monitor RHR heat exchanger A service water

flow.

2E11-R603A

Use local indication to monitor RHR heat exchanger A service water

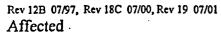
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2E51-C001

Place switch 2B21B-S5B, in panel 2H11-P614, in the TEST position.

Place switch 2B21B-S5B, in panel 2H11-P614, in the TEST position.



Equipment

Required Action

9.5-E-101

2P70-F004

Open link TB9-21 in panel 2H11-P700.

2P70-F005

Open link TB1-12 in panel 2H11-P700.

2R24-S018A

In the event of a loss of power to 2R24-S018A, manually close valve 2E11-F018A to isolate RHR minimum flow line as required after pump 2E11-C002A is started and manually open 2E11-F015A with the handwheel.

FIRE AREA 2203

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C and perform the following actions:

Affected

Equipment

Required Actions

2B21-F013A

Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7A, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.

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FIRE AREA 2203 (Cont'd.)

Affected Equipment	Required Actions
2B21-F013B	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Per existing plant procedures, the operator will pull fuses to eliminate the electrical open signal to the S/RVs which have faulted open.
2B21-F013C	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7A, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2B21-F013D	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928.
2B21-F013E	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928 Place switch 2B21C-S7A, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2B21-F013F	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Per existing plant procedures, the operator will pull fuses to eliminate the electrical open signal to the S/RVs which have faulted open.
2B21-F013G	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928.
2B21-F013H	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7A, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2B21-F013K	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7A, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2B21-F013L	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7A, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2B21-F013M	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7A, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.



FIRE AREA 2203 (Cont'd.)

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Affected Equipment	Required Actions
2E11-C001B	Remove control power and verify closed or close the circuit breaker in Frame 3 of 4.16 kV switchgear 2R22-S007.
2E11-C002B	Remove control power and verify closed or close the circuit breaker in Frame 8 of 4.16 kV switchgear 2R22-S007.
2E11-F003B	Open valve 2E11-F003B with the handwheel, if it has closed, after racking out breaker in frame 6A of MCC 2R24-S012.
2E11-F004B	Open valve 2E11-F004B with the handwheel, if it has closed, after racking out breaker in frame 6B of MCC 2R24-S012.
2E11-F006B	Close valve 2E11-F006B with the handwheel, if it has opened, after racking out breaker in frame 6C of MCC 2R24-S012.
2E11-F007B	Close valve 2E11-F018B to isolate RHR minimum flow line as required after pump 2E11-C002B is started.
2E11-F011B	Close valve 2E11-F011B with the handwheel, if it has opened, after racking out breaker in frame 8A of MCC 2R24-S012.
2E11-F015B	Open valve 2E11-F015B with the handwheel, after tripping the 600VAC feeder breaker to 2R24-S018B in MCR panel 2H11-P601.
2E11-F047B	Open valve 2E11-F047B with the handwheel, if it has closed, after acking out breaker in frame 11A of MCC 2R24-S012.
2E11-F048B	Manually control valve 2E11-F048B with the handwheel, after racking out breaker in frame 11B of MCC 2R24-S012.
2E41-C001	 Put switch 2B21B-S6B (in MCR panel 2H11-P614) in the TEST position.
	2. Put switch 2B21B-S6A (in MCR panel 2H11-P614) in the TEST position.
2E41-F002	Put switch 2B21B-S6A (in MCR panel 2H11-P614) in the TEST position.

FIRE AREA 2203 (Cont'd)

Affected Equipment	Required Actions
2E41-F003	Put switch 2B21B-S6B (in MCR Panel 2H11-P614) in the TEST position.
2E41-F041	Put switch 2B21B-S6B (in MCR panel 2H11-P614) in the TEST position.
2E41-F042	Put switch 2B21B-S6A (in MCR panel 2H11-P614) in the TEST position.
2P70-F001B	Hook up nitrogen gas bottles 2P70-A002A, B, and C at test and emergency nitrogen hookup station 2P70-F084, El. 130, reactor building south, area 2205F.
2T41-B002B	Start RHR and CS pump room cooler 2T41-B002B by placing switch 2T41B-S52B in panel 2H11-P654 in the RUN position.
2T41-B005B	Start HPCI pump room cooler 2T41-B005B by placing switch 2T41B-S35B in panel 2H11-P654 in the RUN position.
2T47-R627	Notify operator erroneous torus water temperature indication may occur through multi-point temperature recorder 2T47-R627, point 2. Point 1 should be used for torus water temperature readings.
2T48-F112A	Manually close valve 2T48-F112A from MCR panel 2H11-P657 by switching flow controller 2T48-R613A from auto to manual and manually increasing the output.

FIRE AREA 2205

In order to shutdown Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A and perform the following actions:

Affected Equipment	Required Action
2B21-F013A	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.

FIRE AREA 2205 (Cont'd.)

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Affected Equipment	Required Actions
2B21-F013B	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928.
2B21-F013C	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2B21-F013D	Open link B-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Per existing plant procedures, the operator will pull fuses to eliminate the electrical open signal to the S/RVs.
2B21-F013E	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2B21-F013F	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928.
2B21-F013G	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Per existing plant procedures, the operator will pull fuses to eliminate the electrical open signal to the S/RVs.
2B21-F013H	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2B21-F013K	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2B21-F013L	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2B21-F013M	Open link BB-10 in panel 2H11-P927 and link BB-10 in panel 2H11-P928. Place switch 2B21C-S7B, in panel 2H11-P602, in the INHIBIT position to eliminate the electrical open signal to the S/RVs.
2C32-R655	Use shutdown cooling mode of RHR for shutdown if wide range RPV level indication is lost.

Affected Equipment	Required Actions
2E11-C001A	Place switch 2E11-S19A, in panel 2H11-P601, in the MANUAL
	OVERRIDE position.
2E11-F006B	Prior to entering shutdown cooling, verify closed or close valve 2E11-F006B locally via the handwheel after racking out breaker in frame 4T of MCC 2R23-S004.
2E11-F006D	Prior to entering shutdown cooling, verify closed or close valve 2E11-F006D locally via the handwheel after racking out breaker in frame 4T of MCC 2R23-S004.
2E11-F008	To open valve 2E11-F008 as required to place SDC in service, operate valve manually via the handwheel after racking open the breaker at frame 3M of 2R22-S017.
2E11-F048A	Notify the operator that this valve may open after it has been partially closed for throttling. This condition, however, will only last 3 minutes and the valve may be returned to a throttled position.
2E51-C001	Put switches 2B21B-S5A and 2B21B-S5B (in MCR panel 2H11-P614) in the TEST position. MCR annunciation is provided to alert the operator of the atart of the RCIC isolation timers.
2E51-F007	Put switch 2B21B-S5B (in MCR panel 2H11-P614) in the TEST position upon determining that a fire exists in this area.
2E51-F008	Put switch 2B21B-S5A (in MCR panel 2H11-P614) in the TEST position upon determining that a fire exists in this area.
2T41-B003A	Start RHR and CS pump room cooler 2T41-B003A by placing switch 2T41-S33A, in panel 2H11-P654, in the RUN position.
2T41-B004A	Start RCIC pump room cooler 2T41-B004A by placing switch 2T41-S34A, in panel 2H11-P654, in the RUN position.
2T48-F113	Locally close manual valve 2T48-F111.

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<u>Equipment</u> <u>Required Actions</u>

2T48-F115

Locally close manual valve 2T48-F111.

2T48-F118A

Locally close manual valve 2T48-F111.

2T48-F118B

Locally close manual valve 2T48-F111.

FIRE AREA 2401

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2402

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2403

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2404

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C and perform the following actions:

Affected

	Required Actions	•	. •
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2T41-B002B	Manually start cooler 2T41-B002B using R	MS 2T41-S52B	located on
	panel 2H11-P654.		. •
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2T41-B005B

Manually start cooler 2T41-B005B using RMS 2T41-S35B located on

panel 2H11-P654. 4

FIRE AREA 2405

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A.



In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A.

FIRE AREA 2407

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A.

FIRE AREA 2408

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C and perform the following actions:

Affected Equipment	Required Action	
2T41-B002B	Manually start cooler 2T41-B002B using RMS 2T41-S52B, located panel 2H11-P654. Valve 2P41-F036B will open automatically when the cooler starts.	
2T41-B005B	Manually start cooler 2T41-B005B using RMS 2T41-S35B, located in panel 2H11-P654. Valve 2P41-F035B will open automatically when the cooler starts.	

FIRE AREA 2409

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A and perform the following actions:

Affected Equipment	Required Action	
2T41-B003A	Manually start cooler 2T41-B003A using RMS 2T41-S33A in panel 2H11-P657. Valve 2P41-F039A will open automatically when the cooler starts.	
2T41-B004A	Manually start cooler 2T41-B004A using RMS 2T41-S34A in panel 2H11-P657. Valve 2P41-F040A will open automatically when the cooler starts.	

FIRE AREA 2601

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2602

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A.

FIRE AREA 2603

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2604

In order to shut down Unit 2 following a fire in this fire area, the operator may use path 1 or 2 shutdown procedures using Diesel Generator 2A or 2C and perform the following actions:

Affected

Equipment

Required Actions

2T48-A001

Align Unit 2 nitrogen source from Unit 1 tank T48-A001.

FIRE AREA 2605

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2607

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2610

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 2 shutdown procedures using Diesel Generator 2C.

FIRE AREA 2612

In order to shut down Unit 2 following a fire in this fire area, the operator must use path 1 shutdown procedures using Diesel Generator 2A.

