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Screening and Evaluation Number		Applicable Sites	
EREG #: 02304337		BNP	<input type="checkbox"/>
		CNS	<input type="checkbox"/>
		CR3	<input type="checkbox"/>
		HNP	<input type="checkbox"/>
5AD #: 02304278		MNS	<input checked="" type="checkbox"/>
		ONS	<input type="checkbox"/>
		RNP	<input type="checkbox"/>
		GO	<input type="checkbox"/>
Document and Revision	RP/0/A/5700/026 REVISION 019 - REQUIRED ACTIONS IN THE TECHNICAL SUPPORT CENTER (TSC)		

Part I. Description of Activity Being Reviewed (event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan):

Change #	E-Plan or Procedure Section Reference	Current (Existing) Text	Proposed (Change) Text	Supporting Rationale (Justification) for Change
1	Title Page	Revision No. 018	Revision No. 019	Editorial
2	Revision History	Rev 018, 017, 016, 015 and 014	Rev 019	Editorial
3	Before Step 1.	Not Applicable	Reference Use	Added level of procedure use. Editorial
4	Various place keeping tools	Not Applicable	Not Applicable	Changes from signoffs to check boxes or vis versa. Editorial
5	Step 3.1	Operations and Engineering personnel will review current plant status AND begin evaluation of various plant equipment/parameters as directed in Enclosure 4.1 (Operations and System Engineering Technical Evaluation Checklist). Each group is responsible for ensuring Enclosure is	Operations and Engineering personnel will review current plant status AND begin evaluation of various plant equipment/parameters as directed in Enclosure 4.1 (Technical Evaluation Checklist). Each group is responsible for ensuring Enclosure is completed. Both groups monitor steps	Editorial

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		completed. Both groups monitor steps to ensure they are performed as required.	to ensure they are performed as required.		
6	Step 3.2	The Dose Assessor will place radiation monitoring in service in the TSC as directed in Enclosure 4.2 (TSC EMF Alignment).	The Dose Assessor will place radiation monitoring in service in the TSC as directed in Enclosure 4.2 (Dose Assessor TSC EMF Alignment).	Editorial	
7	Enclosure 4.1, CONDITION and STEP TO EVALUATE b. (old)	NS is started during the event. Step 1.3	Not Applicable	Deleted Condition. Renumbered remaining Conditions.	
8	Enclosure 4.1, CONDITION and STEP TO EVALUATE e. (old)	LOCA inside containment and OAC lost. Step 1.6	Not Applicable	Deleted Condition. Renumbered remaining Conditions.	
9	Enclosure 4.1, CONDITION and STEP TO EVALUATE f. (old)	LOCA inside containment or any event that may result in radioactive water leakage in Aux. Bldg. Step 1.7	Not Applicable	Deleted Condition. Renumbered remaining Conditions.	
10	Enclosure 4.1, CONDITION and STEP TO EVALUATE j. (old)	LOOP occurred and off-site power cannot be restored for at least 48 hours. Step 1.11	Not Applicable	Deleted Condition. Renumbered remaining Conditions.	
11	Enclosure 4.1, CONDITION and STEP TO EVALUATE t. (old)	LOOP expected to last greater than 6 hours with outside air temperature less than 32°F. Step 1.21	Not Applicable	Deleted Condition. Renumbered remaining Conditions.	

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
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ATTACHMENT 4

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12	Enclosure 4.1, CONDITION and STEP TO EVALUATE p.	Not Applicable	VC Safety Signal initiated (S/I, B/O or Manual) AND it is desired to secure one VC CR AHU to secure one VC CR AHU to improve Control Room cooling OR secure one VC OAPFT to improve ability to access Control Room. Step 1.17	Added Condition. Renumbered remaining Conditions.
13	Enclosure 4.1, CONDITION and STEP TO EVALUATE q.	Not Applicable	NS pump is started AND subsequently stopped. Step 1.18	Added Condition. Renumbered remaining Conditions.
14	Enclosure 4.1, NOTE before Step 1.2	• Bulleted Steps in Step 1.2 below do not apply if the applicable unit's ECA-0.0 (Loss of All AC Power) or AP/24 (Loss of Plant Control Due to Fire or Sabotage) is in effect {NCR-01598992, NCR-01614049}	Bulleted steps in Step 1.2 below do NOT apply if the applicable unit's ECA-0.0 (Loss of All AC Power) or AP/24 (Loss of Plant Control Due to Fire or Sabotage) is in effect. {NCR 01598992, NCR 01614049}	Editorial.
15	Enclosure 4.1, Step 1.2, 1 st bullet	IF AT ANY TIME Unit 1 CA Storage Tank (water tower) Control Room level indication is lost, have Control Room implement EP/1/A/5000/G-1 (Generic Enclosures), Enclosure 31 (Local CA Storage Tank (Water Tower) Level Monitoring).	IF AT ANY TIME Unit 1 CA Storage Tank (water tower) Control Room level indication is lost, THEN have Control Room implement EP/1/A/5000/G-1 (Generic Enclosures), Enclosure 31 (Local CA Storage Tank (Water Tower) Level Monitoring).	Editorial
16	Enclosure 4.1, Step 1.2, 2 nd bullet	IF AT ANY TIME Unit 2 CA Storage Tank (water tower) level Control Room level indication is lost, have	IF AT ANY TIME Unit 2 CA Storage Tank (water tower) level Control Room level indication is lost,	Editorial

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		Control Room implement EP/2/A/5000/G-1 (Generic Enclosures), Enclosure 31 (Local CA Storage Tank (water Tower) Level Monitoring).	THEN have Control Room implement EP/2/A/5000/G-1 (Generic Enclosures), Enclosure 31 (Local CA Storage Tank (water Tower) Level Monitoring).		
17	Enclosure 4.1, Step 1.3 (old)	IF NS is started during this event, perform the following: {NCR-01694189, NCR-01685462, NCR-01595785}	Not Applicable	Delete Step. Renumbered remaining steps.	
18	Enclosure 4.1, Step 1.3	IF containment pressure exceeds 3 psig AND containment pressure returns below 1 psig, perform the following:	IF containment pressure exceeds 3 psig AND containment pressure returns below 1 psig, THEN perform the following:	Editorial	
19	Enclosure 4.1, Step 1.3.2	IF Containment pressure less than 0 psig, perform the following:	IF Containment pressure less than 0 psig, THEN perform the following:	Editorial	
20	Enclosure 4.1, Step 1.4	IF a faulted S/G outside Containment exists, perform the following: {DW-93-024}	IF a faulted S/G outside Containment exists, THEN perform the following: {DW-93-024}	Editorial	
21	Enclosure 4.1, Step 1.4.2	IF abnormal radiation exists on faulted S/G, evaluate potential rupture on S/G using the following:	IF abnormal radiation exists on faulted S/G, THEN evaluate potential rupture on S/G using the following:	Editorial	
22	Enclosure 4.1, Step 1.4.3	Not Applicable	IF S/G tube leakage on faulted S/G is known to exist, including pre-event leakage within limits of Tech Spec 3.4.13, THEN perform Step 1.13.	Added step. Renumbered following steps.	

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23	Enclosure 4.1, Step 1.6 (old)	IF OAC NOT available AND event involves LOCA inside containment, monitor ND & NS Sump as follows: {NCR 01722752}	Not Applicable	Deleted step. Renumbered following steps.
24	Enclosure 4.1, Step 1.7 (old)	IF event involves a LOCA inside containment OR any event that may result in radioactive water leakage in Aux Bldg, perform the following: {NCR 01722752}	Not Applicable	Deleted step. Renumbered following steps.
25	Enclosure 4.1, Step 1.5	IF normal NCDT cooling AND release have been lost (LOOP, SI, Loss of VI), monitor NCDT temperature, pressure, AND perform the following as applicable:	IF normal NCDT cooling AND release have been lost (LOOP, SI, Loss of VI), THEN monitor NCDT temperature, pressure, AND perform the following as applicable:	Editorial
26	Enclosure 4.1, NOTE before Step 1.5.1	Step 1.8.1.1 and Step 1.8.1.2 may be preformed in any order or Concurrent.	Step 1.5.1.1 and Step 1.5.1.2 may be performed in any order or concurrently.	Editorial
27	Enclosure 4.1, Step 1.5.1	IF SI has NOT occurred, evaluate reducing NCDT pressure per OP/1(2)/A/6500/001 (Liquid Waste System).	IF 1(2)NV-94AC AND 1(2)NV-95B (NC Pump Seal Ret Cont Inside (Outside) Isol) are open, THEN evaluate the following:	Revised guidance.
28	Enclosure 4.1, Step 1.5.1.1	IF SI has NOT occurred, evaluate reducing NCDT pressure per OP/1(2)/A/6500/001 (Liquid Waste System).	IF SI has NOT occurred, THEN evaluate reducing NCDT pressure per OP/1(2)/A/6500/001 (Liquid Waste System).	Editorial

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29	Enclosure 4.1, Step 1.5.1.2	IF SI has occurred, AND continued operation of NC pump is desired, evaluate performing applicable steps in EP/1(2)/A/5000/ES-1.1 (Safety Injection Termination) Enclosure 3 (Plant Realignment After S/I Termination), considering the following:	IF SI has occurred, AND continued operation of NC pump is desired, THEN evaluate performing applicable steps in EP/1(2)/A/5000/ES-1.1 (Safety Injection Termination) Enclosure 3 (Plant Realignment After S/I Termination), considering the following:	Editorial
30	Enclosure 4.1, Step 1.8.1.2.A (old)	IF 1(2)NV-94AC OR 1(2)NV-95B (NC Pump Seal Ret Cont Inside (Outside) Isol) is closed, restoring NCDT is NOT needed.	Not Applicable	Deleted step. Renumbered following steps.
31	Enclosure 4.1, Step 1.5.1.2.B and 1.5.1.2.C	1.5.1.2.B Step number 1.5.1.2.C Step number	• Step bulleted • Step bulleted	Editorial
32	Enclosure 4.1, Step 1.5.1.2.D	1.5.12.D Step number and sub-steps	1.5.1.3 Step number and sub-steps	Editorial
33	Enclosure 4.1, Step 1.5.1.3.A	IF NC pump number 1 seal D/P is less than 300 psid, AND 1(2)NV-94AC AND 1(2)NV-95B (NC Pump Seal Ret Cont Inside (Outside) Isol) are both open, THEN ensure all NC pumps are off for at least 5 minutes prior to performing Step C below. (NC pump seal D/P will drop by 100 psid when closing the NC pump seal return containment isolation valves.)	Ensure all NC pumps are off for at least 5 minutes prior to performing Step C below. (NC pump seal D/P will drop by 100 psid when closing the NC pump seal return containment isolation valves.)	Revised guidance.

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34	Enclosure 4.1, Step 1.5.1.3.B	IF excess letdown is in service, align excess letdown to NCDT immediately before performing Step C below.	IF excess letdown is in service, THEN align excess letdown to NCDT immediately before performing Step C below.	Editorial
35	Enclosure 4.1, Step 1.8.2 (old)	IF NCDT pressure greater than OR equal to VCT pressure AND NV-94AC OR NV-95B is closed, place info tag on valves: "Contact TSC prior to opening".	Not Applicable	Deleted step. Renumbered following steps.
36	Enclosure 4.1, Step 1.5.2	IF NCDT pumps running without KC cooling water (SI or Loss VI) for an extended period of time AND NCDT temperature is approaching 200°F, evaluate stopping NCDT pumps prior to flashing KC water in NCDT HX, OR exceeding NCDT piping design temperatures. (Ref MCFD 1(2)565-01.01 and 1(2)573-03.01).	IF NCDT pumps running without KC cooling water (SI or Loss VI) for an extended period of time AND NCDT temperature is approaching 200°F, THEN evaluate stopping NCDT pumps prior to flashing KC water in NCDT HX, OR exceeding NCDT piping design temperatures. (Ref MCFD 1(2)565-01.01 and 1(2)573-03.01).	Editorial
37	Enclosure 4.1, Step 1.6	IF all the following conditions exist 24 hours after initiation of the event, perform Steps 1.9.1 AND 1.9.2: {NCR-01715452}	IF all the following conditions exist 24 hours after initiation of the event, THEN perform Steps 1.6.1 AND 1.6.2: {NCR 01715452}	Editorial
38	Enclosure 4.1, Step 1.6.2	IF SNSWP temperature reaches 90°F, evaluate performing the following:	IF SNSWP temperature reaches 90°F, THEN evaluate performing the following:	Editorial
39	Enclosure 4.1, Step 1.6.2.2	IF available, align KF heat load to LLI (via KF to KC to RN).	IF available, THEN align KF heat load to LLI (via KF to KC to RN).	Editorial

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40	Enclosure 4.1, Step 1.6.2.3	IF KF cooling secured, notify the Control Room of the following:	IF KF cooling secured, THEN notify the Control Room of the following:	Editorial
41	Enclosure 4.1, Step 1.7	IF LOCA and transfer to Cold Leg Recirc has occurred, monitor RN/KC HX DP on affected unit(s) as follows: {NCR 01702096}	IF LOCA and transfer to Cold Leg Recirc has occurred, THEN monitor RN/KC HX DP on affected unit(s) as follows: {NCR 01702096}	Editorial
42	Enclosure 4.1, Step 1.7.2.1	IF DP 0 - 8 psid, monitor DP every 12 hours.	IF DP 0 - 8 psid, THEN monitor DP every 12 hours.	Editorial
43	Enclosure 4.1, Step 1.7.2.2	IF DP 8 - 11.4 psid, monitor DP every 2 hours.	IF DP 8 - 11.4 psid, THEN monitor DP every 2 hours.	Editorial
44	Enclosure 4.1, Step 1.7.3	IF the five minute average corrected DP (M1(2)P1222 or M1(2)P1223) exceeds 11.5 psid on a continuous basis, evaluate appropriate actions.	IF the five minute average corrected DP (M1(2)P1222 or M1(2)P1223) exceeds 11.5 psid on a continuous basis, THEN evaluate appropriate actions.	Editorial
45	Enclosure 4.1, Step 1.11 (old)	IF a LOOP has occurred during this event AND off-site power CANNOT be restored for at least 48 hours from when loss of off-site power occurred, perform the following to align power to IPB fans prior to power restoration: {NCR 01691549, CA12}	Not Applicable	Deleted step. Renumbered following steps.
46	Enclosure 4.1, Step 1.9	IF a S/G PORV isolation valve was closed to isolate a failed open or leaking S/G PORV, perform the following: {NCR 01698025}	IF a S/G PORV isolation valve was closed to isolate a failed open or leaking S/G PORV, THEN perform the following: {NCR 01698025}	Editorial

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47	Enclosure 4.1, Step 1.9.2	IF S/G PORV starts leaking again, dispatch operator to ensure PORV isolation valve closed.	IF S/G PORV starts leaking again, THEN dispatch operator to ensure PORV isolation valve closed.	Editorial
48	Enclosure 4.1, Step 1.10	WHEN S/Gs are depressurized, throttle CA control valves for idle CA pumps as required to prevent CA suction sources from overfilling S/Gs due to gravity feed.	WHEN S/Gs are depressurized, THEN throttle CA control valves for idle CA pumps as required to prevent CA suction sources from overfilling S/Gs due to gravity feed.	Editorial
49	Enclosure 4.1, Note before Step 1.11	(For design basis events, using just the 3 psig containment pressure criteria is adequate for determining when ACC setpoints must be used. For some beyond basis LOCAs outside containment, high containment radiation may be reached hours into the event, without reaching 3 psig in containment. (High containment radiation will then be used to determine when ACC setpoints will be used.)	For design basis events, using just the 3 psig containment pressure criteria is adequate for determining when ACC setpoints must be used. For some beyond basis LOCAs outside containment, high containment radiation may be reached hours into the event, without reaching 3 psig in containment. (High containment radiation will then be used to determine when ACC setpoints will be used.)	Editorial
50	Enclosure 4.1, Step 1.11	IF AT ANY TIME containment radiation read on EMF - 51A or B reaches 1E5 R/hr, notify control room to ensure abnormal containment condition (ACC) setpoints are used in emergency procedures. {DW-93- 27}	IF AT ANY TIME containment radiation read on EMF - 51A or B reaches 1E5 R/hr, THEN notify control room to ensure abnormal containment condition (ACC) setpoints are used in emergency procedures. {DW-93- 27}	Editorial

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51	Enclosure 4.1, Note before Step 1.12	Not Applicable	High energy line breaks inside containment may damage VI Headers. The containment pressure analysis does NOT assume VI in-leakage.	Added Note.
52	Enclosure 4.1, Step 1.12	IF LOCA inside containment exists AND containment pressure remains above 3 psig, evaluate status of VI isolation to containment as follows: {NCR 01717093, NCR 01599659 CA #17, DW 98-023}	IF LOCA inside containment exists AND containment pressure remains above 3 psig, THEN evaluate status of VI isolation to containment as follows: {NCR 01717093, NCR 01599659 CA #17, DW 98-023}	Editorial
53	Enclosure 4.1, Step 1.12.1	Check VI valves closed on affected unit: <input type="checkbox"/> 1(2) VI-129B (A Ess Hdr Cont Outside Isol) <input type="checkbox"/> 1(2) VI-160B (B Ess Hdr Cont Outside Isol) <input type="checkbox"/> 1(2) VI-150B (Lwr Cont Non Ess Cont Outside Isol) <input type="checkbox"/> 1(2) VI-148B (Upp Cont Non Ess Cont Outside Isol)	Check VI valves closed on affected unit: <input type="checkbox"/> 1(2) VI-129B (VI Supply to A Cont Ess VI Hdr Outside Isol) <input type="checkbox"/> 1(2) VI-160B (VI Supply to B Cont Ess VI Hdr Outside Isol) <input type="checkbox"/> 1(2) VI-150B (Lwr Cont Non Ess Cont Outside Isol) <input type="checkbox"/> 1(2) VI-148B (Upp Cont Non Ess Cont Outside Isol)	Editorial
54	Enclosure 4.1, Note before Step 1.12.2, 2 nd bullet	1(2)VI-160B will isolate VI to: 1(2)NC-32B and 1(2) 36B (Pzr PORV), 1(2)NV-13B and 1(2) 16A (NV Supply to A(D) NC Loop Isol) (NV-13B & 16A will both fall open), VI cooling water tube cleaning controls (which may bypass VL unit if VL not already isolated).	1(2)VI-160B will isolate VI to: 1(2)NC-32B and 1(2) 36B (Pzr PORV), 1(2)NV-13B and 1(2) 16A (NV Supply to A(D) NC Loop Isol) (NV-13B & 16A will both fall open) and VL cooling water tube cleaning controls (which may bypass VL unit if VL not already isolated).	Corrected left indentation. Editorial

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55	Enclosure 4.1, Step 1.12.2	IF valve(s) above are open, evaluate the following:	IF valve(s) above are open, THEN perform the following:	Editorial
56	Enclosure 4.1, Step 1.12.2.1	To evaluate potential VI header break OR VI leakage into Containment, use the following information as applicable: {NCR 01599659 CA#17}	Evaluate potential VI header break OR VI leakage into Containment, use the following information as applicable: {NCR 01599659 CA#17}	Editorial
57	Enclosure 4.1, Step 1.12.2.1, 1 st check box	On Unit 1, VI flow to Unit 1 Aux/Reactor Bldg can be checked on OAC VI graphic (M1A1448). Look at OAC point history prior to event AND compare to current value. Flow normally cycles between 200 to 400 SCFM. If OAC is lost, local indication is also available on 1VIFT6570 (Aux/Rx Bldg VI Flow) in service bldg, 739, U- 29.	On Unit 1, VI flow to Unit 1 Aux/Reactor Bldg can be checked on OAC VI graphic (M1A1448). Look at OAC point history prior to event AND compare to current value. Flow normally cycles between 200 to 400 SCFM. If OAC is lost, local indication is also available on 1VIFT6570 (Aux/Rx Bldg VI Flow) in Service Bldg, 739, U- 29.	Editorial
58	Enclosure 4.1, Step 1.12.3	Evaluate placing "INFO" tags next to control board switches for valves in Step 1.18.1, "Contact TSC prior to opening".	Evaluate placing "INFO" tags "Contact TSC prior to opening" next to control board switches for valves in Step 1.12.1.	Reworded step.
59	Enclosure 4.1, Step 1.13	IF LOCA or any other event has occurred resulting in potential for continued radiological release, complete the following within 4 hours of event initiation to limit control room dose: {NCR 01606973, NCR 01606907}	IF LOCA or any other event has occurred resulting in potential for continued radiological release, THEN complete the following within 4 hours of event initiation to limit control room dose: {NCR 01606973, NCR 01606907}	Editorial

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60	Enclosure 4.1, Note before Step 1.13.3, 4 th bullet	Not Applicable	If release is through a faulted S/G with known S/G tube leakage AND RP is unable to determine which unit intake has the highest radiation hazard, the affected unit intake should be assumed to be higher than the other unit.	Added step. Renumbered following steps.
61	Enclosure 4.1, Step 1.13.3	IF one unit's intake radiation hazard is clearly higher than the other unit, perform the following:	IF one unit's intake radiation hazard is clearly higher than the other unit, THEN perform the following:	Editorial
62	Enclosure 4.1, Step 1.13.3.2	WHEN intake dampers associated with cleanest unit's intake are open, close intake dampers associated with highest radiation hazard unit listed in Step 1.17.1.1 OR 1.17.1.2.	WHEN intake dampers associated with cleanest unit's intake are open, THEN close intake dampers associated with highest radiation hazard unit listed in Step 1.13.1.1 OR 1.13.1.2.	Editorial
63	Enclosure 4.1, Step 1.13.4	IF both unit's intake radiation hazard are approximately the same OR difference can NOT be determined, ensure open all intake dampers listed in both Steps 1.17.1.1 AND 1.17.1.2.	IF both unit's intake radiation hazard are approximately the same OR difference can NOT be determined, THEN ensure open all intake dampers listed in both Steps 1.13.1.1 AND 1.13.1.2.	Editorial
64	Enclosure 4.1, Step 1.14	IF ND Pump is running 2 hours with ND flow to NC loops less than 1000 gpm per running ND Pump (1000 gpm with one pump on, 2000 gpm with 2 pumps on), perform the following: {NCR 01591460}	IF ND Pump is running 2 hours with ND flow to NC loops less than 1000 gpm per running ND Pump (1000 gpm with one pump on, 2000 gpm with 2 pumps on), THEN perform the following: {NCR 01591460}	Editorial

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65	Enclosure 4.1, Step 1.14.1, 3 rd bullet	IF both ND Pumps running AND ND train's cross-tie is open (1(2)ND-30A and 1(2)ND-15B), the stronger ND pump may be pumping through the other train's recirc valve (assuming recirc valve is open) and most of the flow to NC Cold Legs. This may limit the flow of weaker pump to just its "ND Pump mini-flow" indication.	IF both ND Pumps running AND ND train's cross-tie is open (1(2)ND-30A and 1(2)ND-15B), THEN the stronger ND pump may be pumping through the other train's recirc valve (assuming recirc valve is open) and most of the flow to NC Cold Legs. This may limit the flow of weaker pump to just its "ND Pump mini-flow" indication.	Editorial	
66	Enclosure 4.1, Step 1.14.1, 6 th bullet	IF ND Aux Containment Spray aligned, the associated ND Pump flow is greater than 1000 gpm.	IF ND Aux Containment Spray aligned, THEN the associated ND Pump flow is greater than 1000 gpm.	Editorial	
67	Enclosure 4.1, Step 1.14.1, 7 th bullet	IF accessible, local ND Pump flow indication in Aux Bldg, 695' may be used. This indicates total ND Pump flow for associated pump, minus the flow through the associated "ND Pump mini-flow" line that taps off upstream of associated ND Pump check valve. (The local gauges below measure pump flow downstream of associated ND discharge check valve, and are NOT on either mini-flow line).	IF accessible, THEN local ND Pump flow indication in Aux Bldg, 695' may be used. This indicates total ND Pump flow for associated pump, minus the flow through the associated "ND Pump mini-flow" line that taps off upstream of associated ND Pump check valve. (The local gauges below measure pump flow downstream of associated ND discharge check valve, and are NOT on either mini-flow line).	Editorial	

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68	Enclosure 4.1, Step 1.14.1, 8 th bullet	IF ND aligned to supply suction of NV and NI pumps in Cold Leg Recirc, consider ND flow to NV and NI pump suctions. This could be supplied by one OR both ND pumps, depending on flow rates AND which ND pump was stronger.	IF ND aligned to supply suction of NV and NI pumps in Cold Leg Recirc, THEN consider ND flow to NV and NI pump suctions. This could be supplied by one OR both ND pumps, depending on flow rates AND which ND pump was stronger.	Editorial
69	Enclosure 4.1, Step 1.14.2	IF ND Pump is running with flow less than 1000 gpm, evaluate the following flow limits AND actions:	IF ND Pump is running with flow less than 1000 gpm, THEN evaluate the following flow limits AND actions:	Editorial
70	Enclosure 4.1, Step 1.14.2.1, 1 st bullet	IF individual ND Pump flow is less than 600 gpm for over 3 hours, pump degradation may occur.	IF individual ND Pump flow is less than 600 gpm for over 3 hours, THEN pump degradation may occur.	Editorial
71	Enclosure 4.1, Step 1.14.2.1, 2 nd bullet	IF individual ND Pump flow is between 600 to 1000 gpm for over 12 hours, pump degradation may occur.	IF individual ND Pump flow is between 600 to 1000 gpm for over 12 hours, THEN pump degradation may occur.	Editorial
72	Enclosure 4.1, Step 1.14.2.1, 3 rd bullet	IF flow is at low side of range above, more attention should be given to limiting run time.	IF flow is at low side of range above, THEN more attention should be given to limiting run time.	Editorial
73	Enclosure 4.1, Step 1.14.2.2	IF ND Pump is approaching a limit above, evaluate performing the following:	IF ND Pump is approaching a limit above, THEN evaluate performing the following:	Editorial

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74	Enclosure 4.1, Step 1.14.2.2.B, 2 nd bullet	IF ND Pump supplying NV and NI pump suctions in Cold Leg Recirc, at least one ND pump must remain on with associated supply valve to NV and NI Pumps open (1(2)ND-58A or 1(2)ND-136B), to maintain suction supply to NV AND NI pumps.	IF ND Pump supplying NV and NI pump suctions in Cold Leg Recirc, THEN at least one ND pump must remain on with associated supply valve to NV and NI Pumps open (1(2)ND-58A or 1(2)ND-136B), to maintain suction supply to NV AND NI pumps.	Editorial
75	Enclosure 4.1, Step 1.14.2.2.B, 4 th bullet	IF one ND pump operating in Cold Leg Recirc with suction aligned to NV AND NI pumps is secured, evaluate securing one of two trains of NV AND NI also to protect them in case the remaining ND pump trips.	IF one ND pump operating in Cold Leg Recirc with suction aligned to NV AND NI pumps is secured, THEN evaluate securing one of two trains of NV AND NI also to protect them in case the remaining ND pump trips.	Editorial
76	Enclosure 4.1, Step 1.14.2.2.C	IF ND Pump is secured AND other ND pump is left on, recheck remaining ND pump flow.	IF ND Pump is secured AND other ND pump is left on, THEN recheck remaining ND pump flow.	Editorial
77	Enclosure 4.1, Step 1.15	WHEN desired to turn off H2 Igniters, perform the following: {NCR 01708556}	WHEN desired to turn off H2 Igniters, THEN perform the following: {NCR 01708556}	Editorial
78	Enclosure 4.1, Step 1.15.2	IF adequate core cooling has existed for this entire event AND containment pressure is less than 0.25 psig, turn H2 Igniters off.	IF adequate core cooling has existed for this entire event AND containment pressure is less than 0.25 psig, THEN turn H2 Igniters off.	Editorial

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79	Enclosure 4.1, Step 1.15.3	IF loss of adequate core cooling has occurred during this event, turn H2 Igniters off 24 hours after adequate core cooling has been established.	IF loss of adequate core cooling has occurred during this event, THEN turn H2 Igniters off 24 hours after adequate core cooling has been established.	Editorial
80	Enclosure 4.1, Step 1.16	IF feed line OR steam line break has occurred inside doghouse AND doghouse top steam vent curtains have been lowered, operate curtains in applicable doghouse as necessary to reduce doghouse temperature for personnel accessibility AND long term EQ conditions. {NCR 01645548}	IF feed line OR steam line break has occurred inside doghouse AND doghouse top steam vent curtains have been lowered, THEN operate curtains in applicable doghouse as necessary to reduce doghouse temperature for personnel accessibility AND long term EQ conditions. {NCR 01645548}	Editorial
81	Enclosure 4.1, Step 1.17	IF LOOP expected to last greater than 6 hours with outside air temperature less than 32°F, perform the following: {NCR 01686792}	IF VC Safety Signal initiated (S/I, B/O or Manual) AND it is desired to secure one VC CR AHU to improve Control Room cooling or secure one VC OAPFT to improve ability to access Control Room, THEN evaluate performing AP/0/A/5500/039 (Control Room Hi Temperature), considering the following: [NCR 01902982] • Both VC CR AHUs start on a Safety Signal actuation. This degrades the VC System ability to cool the Control Room,	Revised guidance.

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			<p>since this reduces the air flow through the VC train with chiller in operation.</p> <ul style="list-style-type: none"> • Both VC OAPFT start on a Safety Signal actuation. This make Control Room access difficult due to high DP across doors. It also creates higher pressure changes in Control Room when doors are opened and closed. • AP/0/A/5500/039 (Control Room Hi Temperature) provides guidance to secure the non-selected train VC CR AHU and provides guidance to evaluate securing one of the VC OAPFTs. 		
82	Enclosure 4.1, Step 1.18	Not Applicable	IF NS is started during this event AND subsequently stopped, THEN perform the following: {NCR 01694189, NCR 01685462}	Added Step. Renumbered following steps.	
83	Enclosure 4.2, Note before Step 1.1, 1 st bullet	EMF-54A, EMF 54B, and EMF 22 are powered from Motor Control Center SMXE.	EMF 54A, EMF 54B, and EMF 22 are powered from Motor Control Center SMXE, which can be powered from Load Center 2SLXF (Normal), Load Center 1SLXF (Alternate) or the TSC DG (Backup).	Revised Note.	
84	Enclosure 4.2, Note before Step 1.1, 2 nd bullet	Safety Injection or Blackout signal may cause SMXE to momentarily lose power causing these EMF's to fail to TRIP 2	A Loss of Offsite Power (LOOP) may cause SMXE to temporarily lose power causing these EMFs to fail to TRIP 2.	Revised wording of step.	

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85	Enclosure 4.2, Note before Step 1.1, 3 rd bullet	Not Applicable	Satellite copy of procedure used in Step 1.1 is located inside metal bldg behind aux boiler room, near to TSC D/G.	Added Note.	
86	Enclosure 4.2, Step 1.1	Not Applicable	IF EMF-22 "POWER ON" light is dark AND both Units 1 and 2 have lost offsite power to TSC equipment, THEN perform the following: 1.1.1 Ensure Operations has restored power to SMXE using TSC DG per OP/0/A/6350/010 E (Operation of Shared Motor Control Center SMXE and TSC D/G), Enclosure 4.7 (TSC Diesel Generator Emergency Start). 1.1.2 Do not continue in this enclosure until SMXE is energized. 1.1.3 WHEN manpower allows, THEN ensure TSC D/G is monitored approximately every 4 hours per OP/0/A/6350/010 E (Operation of Shared Motor Control Center SMXE and TSC D/G), Enclosure 4.11 (Monitoring the Operation of TSC D/G).	Added step. Renumbered following steps.	

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87	Enclosure 4.2, Step 1.2	IF Safety Injection OR Blackout occurs, THEN manually reset EMF 54A, EMF 54B, AND EMF 22 to clear the signal.	IF a LOOP has occurred, THEN manually reset EMF 54A, EMF 54B, AND EMF 22 to clear the signal.	Revised wording of step.
88	Enclosure 4.2, Step 1.3	Turn on the EMF 54A AND EMF 54B in the TSC from the OAC computer room by pressing the start button on each EMF control.	Turn on the EMF 54A AND EMF 54B in the TSC from the OAC computer room by pressing the Start button on each EMF control.	Editorial
89	Enclosure 4.2, Note before Step 1.5, 1 st bullet	If a safety injection has occurred, then the filter bypass will close and the air supplied to the TSC will be filtered.	Alignment of TSC ventilation to filter mode is described below: * If TSC power was manually aligned to be powered by TSC D/G, OP/0/A/6350/010 E (Operation of Shared Motor Control Center SMXE and TSC D/G), Enclosure 4.7 (TSC Diesel Generator Emergency Start) already performed action to ensure TSC ventilation is in filtered mode. * TSC ventilation will be in filtered mode if TSC equipment (from SMXE) was energized when Unit 1 or Unit 2 Safety Injection occurred (automatic alignment). * If Safety Injection did NOT occur OR Unit 2 offsite power lost after Safety Injection reset, it will NOT be in filter mode unless Step 1.5 is completed.	Revised Note.

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90	Enclosure 4.2, Step 1.5	Not Applicable	Ensure TSC ventilation is aligned to filter mode as follows: 1.5.1 IF TSC power was manually aligned to be powered by TSC D/G, THEN GO TO Step 1.6. 1.5.2 WHEN manpower allows, THEN have operator place "VH-SW-3 OTSC-F-1 SELECTOR SWITCH" to "TEST" on Control Panel "OTSC-CP-1" (located Unit 2 TB, 786, behind TSC AHU filters, between 2N-28 and 2N-27).	Added step. Renumbered following steps.
91	Enclosure 4.2, Old Steps 1.6 and 1.7 to new Step 1.8	1.6 Ensure EMF 54A is SECURED after drill OR event is terminated. 1.7 Ensure EMF 54B is SECURED after drill OR event is terminated.	1.8 WHEN TSC no longer required to be activated for drill or event, THEN perform the following: 1.8.1 Ensure EMF 54A secured. 1.8.2 Ensure EMF 54B secured. 1.8.3 IF TSC activated for event, THEN have operator place "VH-SW-3 OTSC-F-1 SELECTOR SWITCH" to "NORMAL" on Control Panel "OTSC-CP-1" (located Unit 2 TB, 786, behind TSC AHU filters, between 2N-28 and 2N-27).	Revised guidance.

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Part II. Activity Previously Reviewed? Is this activity Fully bounded by an NRC approved 10 CFR 50.90 submittal or Alert and Notification System Design Report? If yes, identify bounding source document number or approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below: Justification:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Bounding document attached (optional) <input type="checkbox"/>		
Part III. Editorial Change Is this activity an editorial or typographical change only, such as formatting, paragraph numbering, spelling, or punctuation that does not change intent? Justification: The following changes are editorial per Section 3.0.6 of AD-EP-ALL-0602: 1-6, 14-16, 18-21, 25-26, 28-29, 31-32, 34, 36-44, 46-50, 52-57, 59, 61-80 and 88 These changes require no further evaluation.	Yes <input type="checkbox"/>	No or Partially <input checked="" type="checkbox"/>
Part IV. Emergency Planning Element and Function Screen (Reference Attachment 1, Considerations for Addressing Screening Criteria) Does this activity involve any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II? If answer is yes, then check box.		
1	10 CFR 50.47(b)(1) Assignment of Responsibility (Organization Control)	
1a	Responsibility for emergency response is assigned.	<input type="checkbox"/>
1b	The response organization has the staff to respond and to augment staff on a continuing basis (24-7 staffing) in accordance with the emergency plan.	<input type="checkbox"/>
2	10 CFR 50.47(b)(2) Onsite Emergency Organization	
2a	Process ensures that onshift emergency response responsibilities are staffed and assigned	<input type="checkbox"/>
2b	The process for timely augmentation of onshift staff is established and maintained.	<input type="checkbox"/>
3	10 CFR 50.47(b)(3) Emergency Response Support and Resources	
3a	Arrangements for requesting and using off site assistance have been made.	<input type="checkbox"/>
3b	State and local staff can be accommodated at the EOF in accordance with the emergency plan. (NA for CR3)	<input type="checkbox"/>
4	10 CFR 50.47(b)(4) Emergency Classification System	

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4a	A standard scheme of emergency classification and action levels is in use. (Requires final approval of Screen and Evaluation by EP CFAM.)	<input type="checkbox"/>
5	10 CFR 50.47(b)(5) Notification Methods and Procedures	
5a	Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes (60 minutes for CR3) after declaration of an emergency and providing follow-up notification.	<input type="checkbox"/>
5b	Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway. (NA for CR3)	<input type="checkbox"/>
5c	The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter. (NA for CR3)	<input type="checkbox"/>

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Part IV. Emergency Planning Element and Function Screen (cont.)		
6	10 CFR 50.47(b)(6) Emergency Communications	
6a	Systems are established for prompt communication among principal emergency response organizations.	<input type="checkbox"/>
6b	Systems are established for prompt communication to emergency response personnel.	<input type="checkbox"/>
7	10 CFR 50.47(b)(7) Public Education and Information	
7a	Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ). (NA for CR3)	<input type="checkbox"/>
7b	Coordinated dissemination of public information during emergencies is established.	<input type="checkbox"/>
8	10 CFR 50.47(b)(8) Emergency Facilities and Equipment	
8a	Adequate facilities are maintained to support emergency response.	<input type="checkbox"/>
8b	Adequate equipment is maintained to support emergency response.	<input type="checkbox"/>
9	10 CFR 50.47(b)(9) Accident Assessment	
9a	Methods, systems, and equipment for assessment of radioactive releases are in use.	<input type="checkbox"/>
10	10 CFR 50.47(b)(10) Protective Response	
10a	A range of public PARs is available for implementation during emergencies. (NA for CR3)	<input type="checkbox"/>
10b	Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities. (NA for CR3)	<input type="checkbox"/>
10c	A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.	<input type="checkbox"/>
10d	KI is available for implementation as a protective action recommendation in those jurisdictions that chose to provide KI to the public.	<input type="checkbox"/>
11	10 CFR 50.47(b)(11) Radiological Exposure Control	
11a	The resources for controlling radiological exposures for emergency workers are established.	<input type="checkbox"/>
12	10 CFR 50.47(b)(12) Medical and Public Health Support	
12a	Arrangements are made for medical services for contaminated, injured individuals.	<input type="checkbox"/>
13	10 CFR 50.47(b)(13) Recovery Planning and Post-accident Operations	
13a	Plans for recovery and reentry are developed.	<input type="checkbox"/>
14	10 CFR 50.47(b)(14) Drills and Exercises	
14a	A drill and exercise program (including radiological, medical, health physics and other program areas) is established.	<input type="checkbox"/>
14b	Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses.	<input type="checkbox"/>
14c	Identified weaknesses are corrected.	<input type="checkbox"/>
15	10 CFR 50.47(b)(15) Emergency Response Training	
15a	Training is provided to emergency responders.	<input type="checkbox"/>

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
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ATTACHMENT 4
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Part IV. Emergency Planning Element and Function Screen (cont.)														
16	10 CFR 50.47(b)(16) Emergency Plan Maintenance													
16a	Responsibility for emergency plan development and review is established.	<input type="checkbox"/>												
16b	Planners responsible for emergency plan development and maintenance are properly trained.	<input type="checkbox"/>												
<p>PART IV. Conclusion</p> <p>If no Part IV criteria are checked, then provide Justification and complete Part V below.</p> <p>Justification:</p> <p>The proposed changes below are considered changes that are more than editorial but do NOT impact an Emergency Planning Standard and need NOT be evaluated further:</p> <p>Changes 7, 8, 9, 10, 11, 12, 13 – Revised the conditions for the TSC to monitor and/or evaluate based on plant operational changes.</p> <p>Changes 17, 23, 24, 30, 35, 45 - Removed guidance for deleted conditions from changes 7-11.</p> <p>Changes 18, 27, 33, 51, 58, 60, 81, 83, 84, 85, 86, 87, 89, 90 and 91- Revised guidance for conditions for the TSC to monitor and/or evaluate based on plant operational changes.</p> <p>Changes 22 and 82 - Added new guidance for conditions, from changes 12 and 13, for the TSC to monitor and/or evaluate based on plant operational changes.</p>														
<p>If any Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part IV criteria are checked, then complete Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part V and perform a 10 CFR 50.54(q) Effectiveness Evaluation. Program Element 4a requires final approval of Screen and Evaluation by EP CFAM.</p>		<input type="checkbox"/>												
<p>Part V. Signatures:</p> <p>EP CFAM Final Approval is required for changes affecting Program Element 4a. If CFAM approval is NOT required, then mark the EP CFAM signature block as not applicable (N/A) to indicate that signature is not required.</p> <table border="1"> <tr> <td>Preparer Name (Print): Barry Kimray</td> <td>Preparer Signature: See CAS</td> <td>Date: See CAS</td> </tr> <tr> <td>Reviewer Name (Print): See CAS</td> <td>Reviewer Signature: See CAS</td> <td>Date: See CAS</td> </tr> <tr> <td>Approver (Manager, Nuclear Support Services) Name (Print): See CAS</td> <td>Approver Signature: See CAS</td> <td>Date: See CAS</td> </tr> <tr> <td>Approver (EP CFAM, as required) Name (Print) N/A</td> <td>Approver Signature: N/A</td> <td>Date: N/A</td> </tr> </table>			Preparer Name (Print): Barry Kimray	Preparer Signature: See CAS	Date: See CAS	Reviewer Name (Print): See CAS	Reviewer Signature: See CAS	Date: See CAS	Approver (Manager, Nuclear Support Services) Name (Print): See CAS	Approver Signature: See CAS	Date: See CAS	Approver (EP CFAM, as required) Name (Print) N/A	Approver Signature: N/A	Date: N/A
Preparer Name (Print): Barry Kimray	Preparer Signature: See CAS	Date: See CAS												
Reviewer Name (Print): See CAS	Reviewer Signature: See CAS	Date: See CAS												
Approver (Manager, Nuclear Support Services) Name (Print): See CAS	Approver Signature: See CAS	Date: See CAS												
Approver (EP CFAM, as required) Name (Print) N/A	Approver Signature: N/A	Date: N/A												

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If the proposed activity is a change to the E-Plan, then initiate PRRs.

If the proposed activity is a change to the E-Plan, then create two EREG General assignments

If required by Section 5.6, Submitting Reports of Changes to the NRC, then create two EREG General Assignments.

- One for EP to provide the 10 CFR 50.54(q) summary of the analysis, or the completed 10 CFR 50.54(q), to Licensing.
- One for Licensing to submit the 10 CFR 50.54(q) information to the NRC within 30 days after the change is put in effect.

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QA RECORD

<div>Duke Energy McGuire Nuclear Station</div> <div>REQUIRED ACTIONS IN THE TECHNICAL SUPPORT CENTER (TSC)</div> <div>Reference Use</div>	Procedure No. RP/ 0 /A/5700/026
	Revision No. 019
	Electronic Reference No. MP0070NJ

Revision History (significant issues, limited to one page)

Rev 019 (10/24/2019) 7 ARs were incorporated in this revision:

1. AR 02137903, Deleted Step 1.3.1 (Monitor for leakage...), step 1.6 (IF OAC NOT available AND event involves LOCA inside containment ...), and Step 1.7 (IF event involves a LOCA inside containment OR any event that may result in radioactive water leakage in Aux Bldg...). Deleted pointers to these steps from Step 1.1 table and updated all remaining step numbers. Moved Steps 1.3.2 and 1.3.3 to last step (1.18)
Basis: EP/1(2)/A/5000/ES-1.3 rev 28 (29) and AP/1(2)/A/5500/034 rev 24 added new enclosure that performs these actions during required events. This just moves the guidance and as such is an administrative change as operator actions remain technically the same. PRR02137903
2. AR 02137903, Added new Step 1.4.3: "IF S/G tube leakage on faulted S/G is known to exist, including pre-event leakage within limits of Tech Spec 3.4.13, THEN perform Step 1.13."
Basis: This provides a reminder that if this condition is met, step 1.13 also applies. This is a human factors/administrative change, because step 1.13 was already required to be performed by step 1.1. PRR01237903
3. AR 02028269, Step 1.5 (old Step 1.8): Rewrote sub steps to make it clear when steps apply and made step more concise.
Basis: Step 1.5.1 only applies if 1(2)NV-94AC and 95B are open. This removes guidance that does not apply to step and simplifies guidance. Comment from 5/10/16 ERO drill. Operator actions remain the same. PRR02028269.
4. AR 02257274, Deleted Step 1.11 (IF a LOOP has occurred during this event AND off-site power CANNOT be restored for at least 48 hours...). Deleted pointer from Step 1.1 table and updated all remaining step numbers.
Basis: EP/1(2)/A/5000/ECA-0.0 and AP/1(2)/A/5500/007 provide this guidance, so it does not have to be repeated in RP/26. This just moves the guidance and as such is an administrative change as operator actions remain technically the same. PRR02257274
5. AR 02028269, Added note above Step 1.12 to explain reason VI might need to be isolated to containment.
Basis: Additional information is provided for TSC to make decision in evaluation step. Non-technical change. PRR02028269
6. AR 02212111, Added fourth note above Step 1.13.3 to help TSC determine which unit may have highest radiation hazard for faulted SG scenario with known tube leakage.
Basis: Assist TSC to determine which intake is highest radiation hazard if it is not readily apparent by radiation monitoring. Non-technical change. PRR02212111
7. AR 0220358, Added new Step 1.17 to point to existing guidance in AP/0/A/5500/039 if control room cooling is degraded or if it is desired to secure one VC OAPFT.
Basis: AP/0/A/5500/039 provides guidance to optimize Control Room ventilation. This step provides pointer to that guidance to ensure TSC evaluates if it should be performed. This is a pointer to other approved guidance. PRR0220358
8. AR 02297361, Deleted Step 1.21 that addressed potential for FWST level instruments to freeze during an extended loss of offsite power and the pointer in Step 1.1.
Basis: This step is moved to applicable AP (AP/1(2)/A/5500/007 rev 41 (40)). Actions do not change. PRR02297361
9. AR 02276121, Lead AR, Enclosure 4.2 changed to ensure backup power supply to TSC ventilation has been provided and reflects that the EMFs only need to be reset if a loss of offsite power has occurred, not an S/I signal.
Basis: EC412874 changes the power supplies to the TSC ventilation to a shared unit motor control center and provides a backup power supply from a dedicated DG. PRR02276121
10. Description of item #10 may be found in AR 02276121, Assignment # 04 PRRD, Detailed Revision Summary

REQUIRED ACTIONS IN THE TECHNICAL SUPPORT CENTER (TSC)

Reference Use

1. Symptoms

This procedure will normally be performed by Assistant OPS Manager and Engineering Manager positions in the Technical Support Center (TSC) to provide for technical evaluation of appropriate plant equipment and plant parameters. Exact plant equipment and plant parameters to be monitored will be determined by the Assistant OPS Manager and Engineering Manager positions based on existing and potential plant status. AD-EP-MNS-0105, MNS Site Specific TSC Support, activation checklist will direct Operations and Engineering personnel to obtain this procedure as TSC is being staffed.

The second section of this procedure will be performed by the Dose Assessor in the Technical Support Center (TSC) to place radiation monitoring in service in the TSC. AD-EP-MNS-0105, MNS Site Specific TSC Support activation checklist will direct the Dose Assessor to obtain this procedure as TSC is being staffed.

2. Immediate Actions

None

3. Subsequent Actions

NOTE: This procedure is not intended to be followed in a step-by-step sequence. Sections of procedure are to be implemented as the applicable action becomes necessary.

- 3.1 Operations and Engineering personnel will review current plant status AND begin evaluation of various plant equipment/parameters as directed in Enclosure 4.1 (Technical Evaluation Checklist). Each group is responsible for ensuring Enclosure is completed. Both groups monitor steps to ensure they are performed as required.
- 3.2 The Dose Assessor will place radiation monitoring in service in the TSC as directed in Enclosure 4.2 (Dose Assessor TSC EMF Alignment).

4. Enclosures

- 4.1 Technical Evaluation Checklist
- 4.2 Dose Assessor TSC EMF Alignment

End of Body

Enclosure 4.1
Technical Evaluation Checklist

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- NOTE:**
- If needed during drills or real events, up-to-date VTO flow diagrams are maintained in Work Control Center (WCC). {NCR 01718404}
 - "Evaluations by Station Management in the TSC - Volume 1, Emergency Procedure Evaluations" book is available in TSC to provide considerations for any EP step that states to contact station management or TSC for guidelines. Volume 2 of this document is also available for alternate alignments and strategies.

1. Procedure

1.1 Monitor the following conditions and evaluate performing applicable steps:

- NOTE:**
- Some steps extend across multiple pages.
 - Remaining steps in this enclosure only have to be read if condition listed in Table below is met.

CONDITION	STEP TO EVALUATE
a. CA storage tank (water tower) level control room indication is lost.	Step 1.2
b. Containment pressure goes above 3 psig and then goes below 1 psig.	Step 1.3
c. Faulted S/G outside containment.	Step 1.4
d. NCDT cooling and release isolated (LOOP, S/I, Loss of VI).	Step 1.5
e. 24 hours elapsed after LOCA occurs.	Step 1.6
f. LOCA and transfer to Cold Leg Recirc occurs.	Step 1.7
g. Spent fuel pool cooling is not restored for 8 hours or KC remains isolated to aux bldg non-essential header for 8 hours.	Step 1.8
h. S/G PORV isolation valve was closed to isolate a failed open S/G PORV.	Step 1.9
i. Intact S/G pressures are reduced to less than 100 psig during cooldown.	Step 1.10
j. EMF-51A or B reaches 1E5 R/hr.	Step 1.11
k. LOCA inside containment and containment pressure remains above 3 psig.	Step 1.12
l. LOCA or any other event that results in potential for continued radiological release.	Step 1.13
m. ND pump running over 2 hours with ND flow to NC loops less than 1000 gpm per running ND pump (1000 gpm with one pump on, 2000 gpm with 2 pumps on)	Step 1.14
n. H2 igniters used and it is desired to secure igniters.	Step 1.15
o. Feedline or steamline break inside Doghouse	Step 1.16
p. VC Safety Signal initiated (S/I, B/O or Manual) AND it is desired to secure one VC CR AHU to secure one VC CR AHU to improve Control Room cooling OR secure one VC OAPFT to improve ability to access Control Room.	Step 1.17
q. NS pump is started AND subsequently stopped.	Step 1.18

Enclosure 4.1
Technical Evaluation Checklist

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NOTE: Bulleted steps in Step 1.2 below do **NOT** apply if the applicable unit's ECA-0.0 (Loss of All AC Power) or AP/24 (Loss of Plant Control Due to Fire or Sabotage) is in effect. {NCR 01598992, NCR 01614049}

1.2 Monitor Unit 1 and 2 CA Storage Tank (water tower) level as follows:

- _____ • **IF AT ANY TIME** Unit 1 CA Storage Tank (water tower) Control Room level indication is lost,
THEN have Control Room implement EP/1/A/5000/G-1 (Generic Enclosures), Enclosure 31 (Local CA Storage Tank (Water Tower) Level Monitoring).
- _____ • **IF AT ANY TIME** Unit 2 CA Storage Tank (water tower) level Control Room level indication is lost,
THEN have Control Room implement EP/2/A/5000/G-1 (Generic Enclosures), Enclosure 31 (Local CA Storage Tank (water Tower) Level Monitoring).

_____ 1.3 **IF** containment pressure exceeds 3 psig **AND** containment pressure returns below 1 psig, **THEN** perform the following:

☐ 1.3.1 Monitor VX Containment Air Return Fans (should turn off at 0.35 psig and restart at 0.8 psig).

_____ 1.3.2 **IF** Containment pressure less than 0 psig, **THEN** perform the following:

- _____ • Ensure VX Containment Air Return Fans off.
- _____ • Ensure NS containment spray secured.
- _____ • Ensure ND containment spray secured.
- _____ • Evaluate ensuring cooling water to VL fans isolated (RV Containment Isolation Valves).

Technical Evaluation Checklist

_____ 1.4 **IF** a faulted S/G outside Containment exists,
THEN perform the following: {DW-93-024}

_____ 1.4.1 Notify RP to monitor area of steam release to atmosphere for radiation and to report any abnormal radiation condition to the TSC.

_____ Person Notified

_____/_____
Date Time

_____ 1.4.2 **IF** abnormal radiation exists on faulted S/G,
THEN evaluate potential rupture on S/G using the following:

☐ NC inventory control

☐ Faulted S/G level

☐ Faulted S/G pressure

_____ 1.4.3 **IF** S/G tube leakage on faulted S/G is known to exist, including pre-event leakage within limits of Tech Spec 3.4.13,
THEN perform Step 1.13.

Enclosure 4.1
Technical Evaluation Checklist

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- NOTE:**
- If NC Pump seal return containment isolation valves closed, seal return will go to PRT.
 - If NCDT pressure approaches VCT pressure, closing seal return containment isolation valves prevents back flow through NC pump #2 and #3 seals. {NCR-01691362}
 - NCDT relief pressure is 100 psig.

_____ 1.5 **IF** normal NCDT cooling **AND** release have been lost (LOOP, SI, Loss of VI),
THEN monitor NCDT temperature, pressure, **AND** perform the following as applicable:

NOTE: Step 1.5.1.1 and Step 1.5.1.2 may be performed in any order or concurrently.

_____ 1.5.1 **IF** 1(2)NV-94AC **AND** 1(2)NV-95B (NC Pump Seal Ret Cont Inside
(Outside) Isol) are open,
THEN evaluate the following:

_____ 1.5.1.1 **IF** SI has **NOT** occurred,
THEN evaluate reducing NCDT pressure per
OP/1(2)/A/6500/001 (Liquid Waste System).

_____ 1.5.1.2 **IF** SI has occurred, **AND** continued operation of NC pump is
desired,
THEN evaluate performing applicable steps in
EP/1(2)/A/5000/ES-1.1 (Safety Injection Termination)
Enclosure 3 (Plant Realignment After S/I Termination),
considering the following:

- ES-1.1, Enclosure 3 (Plant Realignment After S/I Termination) contains steps to align KC **AND** ensure proper NCDT operation.
- These steps may only be performed after evaluating impact to KC System Operation **AND** release of NCDT water to Aux Building tanks. (Consider dose **AND** potential loss of Containment Sump water outside containment).

Technical Evaluation Checklist

1.5.1.3 Evaluate isolating NC pump seal return containment isolation valves as follows:

- _____ A. Ensure all NC pumps are off for at least 5 minutes prior to performing Step C below. (NC pump seal D/P will drop by 100 psid when closing the NC pump seal return containment isolation valves.)
- _____ B. **IF** excess letdown is in service, **THEN** align excess letdown to NCDT immediately before performing Step C below.
- _____ C. Close **AND** maintain closed NC pump seal return containment isolation valves 1(2)NV-94AC and 95B.

_____ 1.5.2 **IF** NCDT pumps running without KC cooling water (SI or Loss VI) for an extended period of time **AND** NCDT temperature is approaching 200°F, **THEN** evaluate stopping NCDT pumps prior to flashing KC water in NCDT HX, **OR** exceeding NCDT piping design temperatures.
(Ref MCFD 1(2)565-01.01 and 1(2)573-03.01).

Technical Evaluation Checklist

- _____ 1.6 **IF** all the following conditions exist 24 hours after initiation of the event,
 THEN perform Steps 1.6.1 **AND** 1.6.2: {NCR 01715452}
- ☐ LOCA has occurred resulting in NS actuation
 - ☐ Loss of Offsite power has occurred on either unit
 - ☐ Any KF train running with heat load aligned to SNSWP (via KF to KC to RN)
- ☐ 1.6.1 Monitor SNSWP temperature once per 6 hours.
- _____ 1.6.2 **IF** SNSWP temperature reaches 90°F,
 THEN evaluate performing the following:
- ☐ 1.6.2.1 Secure any KF train with its heat load aligned to SNSWP (via KF to KC to RN).
 - _____ 1.6.2.2 **IF** available,
 THEN align KF heat load to LLI (via KF to KC to RN).
 - _____ 1.6.2.3 **IF** KF cooling secured,
 THEN notify the Control Room of the following:
 - _____ A. Do **NOT** start a KF train with its heat load aligned to SNSWP without Station Management's approval.
 - ☐ B. Refer to AP/1(2)/A/5500/041 (Loss Of Spent Fuel Cooling Or Level), Case I (Loss Of Spent Fuel Cooling).
- _____ 1.7 **IF** LOCA and transfer to Cold Leg Recirc has occurred,
 THEN monitor RN/KC HX DP on affected unit(s) as follows: {NCR 01702096}
- ☐ 1.7.1 Obtain initial RN/KC HX DP reading (M1(2)P1222 or M1(2)P1223).
 - 1.7.2 Obtain subsequent RN/KC HX DP readings (M1(2)P1222 or M1(2)P1223) as follows:
 - _____ 1.7.2.1 **IF** DP 0 - 8 psid,
 THEN monitor DP every 12 hours.
 - _____ 1.7.2.2 **IF** DP 8 - 11.4 psid,
 THEN monitor DP every 2 hours.
 - _____ 1.7.3 **IF** the five minute average corrected DP (M1(2)P1222 or M1(2)P1223) exceeds 11.5 psid on a continuous basis,
 THEN evaluate appropriate actions.

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- _____ 1.8 Within 8 hours of SI initiation **AND** prior to onset of SFP boiling, evaluate restoring SFP cooling per AP/1(2)/A/5500/041 (Loss of Spent Fuel Pool Cooling or Level). {NCR 01705301}.
- _____ 1.9 **IF** a S/G PORV isolation valve was closed to isolate a failed open or leaking S/G PORV, **THEN** perform the following: {NCR 01698025}

NOTE: As affected S/G pressure drops, S/G PORV isolation valve may start leaking. This may be a concern if S/G is ruptured.

- ☐ 1.9.1 Locally monitor affected S/G PORV line for leakage while depressurizing associated S/G.
- _____ 1.9.2 **IF** S/G PORV starts leaking again, **THEN** dispatch operator to ensure PORV isolation valve closed.
- _____ 1.10 **WHEN** S/Gs are depressurized, **THEN** throttle CA control valves for idle CA pumps as required to prevent CA suction sources from overfilling S/Gs due to gravity feed.

NOTE: For design basis events, using just the 3 psig containment pressure criteria is adequate for determining when ACC setpoints must be used. For some beyond basis LOCAs outside containment, high containment radiation may be reached hours into the event, without reaching 3 psig in containment. (High containment radiation will then be used to determine when ACC setpoints will be used.)

- _____ 1.11 **IF AT ANY TIME** containment radiation read on EMF - 51A or B reaches 1E5 R/hr, **THEN** notify control room to ensure abnormal containment condition (ACC) setpoints are used in emergency procedures. {DW-93-27}

NOTE: High energy line breaks inside containment may damage VI Headers. The containment pressure analysis does **NOT** assume VI in-leakage.

- _____ 1.12 **IF** LOCA inside containment exists **AND** containment pressure remains above 3 psig, **THEN** evaluate status of VI isolation to containment as follows: {NCR 01717093, NCR 01599659 CA #17, DW 98-023}
- 1.12.1 Check VI valves closed on affected unit:
- ☐ 1(2) VI-129B (VI Supply to A Cont Ess VI Hdr Outside Isol)
 - ☐ 1(2) VI-160B (VI Supply to B Cont Ess VI Hdr Outside Isol)
 - ☐ 1(2) VI-150B (Lwr Cont Non Ess Cont Outside Isol)
 - ☐ 1(2) VI-148B (Upp Cont Non Ess Cont Outside Isol)

- 1(2)VI-129B will isolate VI to: 1(2)NC-34A (Pzr PORV), 1(2)NV-21A (NV Spray to Pzr Isol), and normal letdown isolation valves.
- 1(2)VI-160B will isolate VI to: 1(2)NC-32B and 1(2) 36B (Pzr PORV), 1(2)NV-13B and 1(2) 16A (NV Supply to A(D) NC Loop Isol) (NV-13B & 16A will both fall open) and VL cooling water tube cleaning controls (which may bypass VL unit if VL not already isolated).
- 1(2)VI-150B will isolate VI to: 1(2)NC-27 and 1(2) 29 (A(B) NC Loop PZR Spray Control), valves associated with NCDT control and cooling, and valves needed to vent N2 from CLAs.

- 1.12.2.1 Evaluate potential VI header break OR VI leakage into Containment, use the following information as applicable: {NCR 01599659 CA#17}
- On Unit 1, VI flow to Unit 1 Aux/Reactor Bldg can be checked on OAC VI graphic (M1A1448). Look at OAC point history prior to event AND compare to current value. Flow normally cycles between 200 to 400 SCFM. If OAC is lost, local indication is also available on 1VIFT6570 (Aux/Rx Bldg VI Flow) in Service Bldg, 739, U-29.
- On Unit 2, there is no VI flow to Unit 2 Aux Bldg and Reactor Bldg. Look at VI dryer discharge 30 min average OAC points on VI graphic (M1P1579, 1580, 1581). Compare the sum of the current values of these OAC points (ensure 30 minutes time frame is while VI header is open to containment) and sum of values prior to event. Flow indications cycle significantly as VI dryers go to purge mode.
- 1.12.2.2 Evaluate closing, locally closing, OR alternate means to isolate VI headers feeding containment as needed to prevent exceeding containment design pressure (15 psig). If desired, one header at a time could be isolated to evaluate header with leak.

☐ 1.12.3 Evaluate placing "INFO" tags "Contact TSC prior to opening" next to control board switches for valves in Step 1.12.1.

Technical Evaluation Checklist

- _____ 1.13 **IF** LOCA or any other event has occurred resulting in potential for continued radiological release,
THEN complete the following within 4 hours of event initiation to limit control room dose: {NCR 01606973, NCR 01606907}

1.13.1 Record position of VC intakes isolation dampers:

1.13.1.1 Unit 1 intake (location A):

- ☐ 1VC-1A (VC Otsd Air Intake Isol from Unit 1) _____
- ☐ 1VC-2A (VC Otsd Air Intake Isol from Unit 1) _____
- ☐ 1VC-3B (VC Otsd Air Intake Isol from Unit 1) _____
- ☐ 1VC-4B (VC Otsd Air Intake Isol from Unit 1) _____

1.13.1.2 Unit 2 intake (location B):

- ☐ 1VC-9A (VC Otsd Air Intake Isol from Unit 2) _____
- ☐ 1VC-10A (VC Otsd Air Intake Isol from Unit 2) _____
- ☐ 1VC-11B (VC Otsd Air Intake Isol from Unit 2) _____
- ☐ 1VC-12B (VC Otsd Air Intake Isol from Unit 2) _____

NOTE: EMF reading is only valid if associated intake is open.
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1.13.2 Have RP determine which unit intake has highest radiation hazard using any of the following as required:

- ☐ EMF-43A (Control Rm Air Intake Loc A) (associated with Unit 1 intake)
- ☐ EMF-43B (Control Rm Air Intake Loc B) (associated with Unit 2 intake)
- ☐ Local monitoring of intakes (each intake can be accessed from associated unit's D/G Bldg roof. The VC intake is two candy cane shaped 18 inch pipes on Aux Bldg roof next to Reactor Bldg).

- At least one unit's intake must remain open.
- If dampers require local operation, Unit 1 intake dampers are located in Unit 1 MG set room and Unit 2 intake dampers are located in Unit 2 MG set room.
- Control Room dose calculations assume that both unit's VC intake isolation dampers are open within 4 hours of event. If the radiation hazard is clearly higher on one unit's intake, it is conservative to isolate the affected intake, after ensuring the cleaner unit's intake is open.
- If release is through a faulted S/G with known S/G tube leakage AND RP is unable to determine which unit intake has the highest radiation hazard, the affected unit intake should be assumed to be higher than the other unit.

- _____ 1.13.3 **IF** one unit's intake radiation hazard is clearly higher than the other unit,
THEN perform the following:
- _____ 1.13.3.1 Ensure open all intake dampers associated with cleanest unit's intake listed in Step 1.13.1.1 **OR** 1.13.1.2.
- _____ 1.13.3.2 **WHEN** intake dampers associated with cleanest unit's intake are open,
THEN close intake dampers associated with highest radiation hazard unit listed in Step 1.13.1.1 **OR** 1.13.1.2.
- _____ 1.13.4 **IF** both unit's intake radiation hazard are approximately the same **OR** difference can **NOT** be determined,
THEN ensure open all intake dampers listed in both Steps 1.13.1.1 **AND** 1.13.1.2.

Technical Evaluation Checklist

- 1.14 **IF** ND Pump is running 2 hours with ND flow to NC loops less than 1000 gpm per running ND Pump (1000 gpm with one pump on, 2000 gpm with 2 pumps on), **THEN** perform the following: {NCR 01591460}

- 1.14.1 Determine if total flow rate of each ND Pump (including recirc flow) is less than 1000 gpm using the following as needed:

- "ND Pump mini-flow" for associated pump (OAC **OR** Control Room Chart Recorder)
- "ND Pump and HX mini-flow" (OAC or Control Room Chart Recorder) (requires associated recirc valve 1(2)ND-68A **OR** 1(2)ND-67B open).
- **IF** both ND Pumps running **AND** ND train's cross-tie is open (1(2)ND-30A and 1(2)ND-15B), **THEN** the stronger ND pump may be pumping through the other train's recirc valve (assuming recirc valve is open) and most of the flow to NC Cold Legs. This may limit the flow of weaker pump to just its "ND Pump mini-flow" indication.
- ND flow to A and B NC Cold Legs indication (at low flow, instrument uncertainty may be 433 gpm.)
- ND flow to C and D NC Cold Legs indication (at low flow, instrument uncertainty may be 433 gpm.)
- **IF** ND Aux Containment Spray aligned, **THEN** the associated ND Pump flow is greater than 1000 gpm.
- **IF** accessible, **THEN** local ND Pump flow indication in Aux Bldg, 695' may be used. This indicates total ND Pump flow for associated pump, minus the flow through the associated "ND Pump mini-flow" line that taps off upstream of associated ND Pump check valve. (The local gauges below measure pump flow downstream of associated ND discharge check valve, and are **NOT** on either mini-flow line).
 - ◇ 1A ND Pump: 1NDPG5040 (1A ND Pump Mini Flow)
 - ◇ 1B ND Pump: 1NDPG5050 (1B ND Pump Mini Flow)
 - ◇ 2A ND Pump: 2NDPG5040 (2A ND Pump Mini Flow)
 - ◇ 2B ND Pump: 2NDPG5050 (2B ND Pump Mini Flow)
- **IF** ND aligned to supply suction of NV and NI pumps in Cold Leg Recirc, **THEN** consider ND flow to NV and NI pump suctions. This could be supplied by one **OR** both ND pumps, depending on flow rates **AND** which ND pump was stronger.

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Technical Evaluation Checklist

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NOTE: At low flow, ND Pump internal hydraulic recirc, increased seal wear and possibly increased wear ring can occur over an extended period. Monitoring operating parameters such as bearing temperatures or stator temperature are not adequate to determine pump health under these conditions.

_____ 1.14.2 **IF** ND Pump is running with flow less than 1000 gpm,
 THEN evaluate the following flow limits **AND** actions:

1.14.2.1 Review the following operating considerations:

- _____ • **IF** individual ND Pump flow is less than 600 gpm for over 3 hours,
 THEN pump degradation may occur.
- _____ • **IF** individual ND Pump flow is between 600 to 1000 gpm for over 12 hours,
 THEN pump degradation may occur.
- _____ • **IF** flow is at low side of range above,
 THEN more attention should be given to limiting run time.

Technical Evaluation Checklist

_____ 1.14.2.2 **IF** ND Pump is approaching a limit above,
THEN evaluate performing the following:

☐ A. Raising ND Pump flow.

☐ B. Evaluate securing ND Pump considering the following:

_____ • Do **NOT** secure an ND Pump with associated ND Aux Containment Spray Valve open.

_____ • **IF** ND Pump supplying NV and NI pump suction in Cold Leg Recirc,
THEN at least one ND pump must remain on with associated supply valve to NV and NI Pumps open (1(2)ND-58A or 1(2)ND-136B), to maintain suction supply to NV **AND** NI pumps.

_____ • Securing one ND pump operating in Cold Leg Recirc with suction aligned to NV **AND** NI Pumps may make plant more vulnerable to loss of emergency coolant recirc. As a failure on the remaining ND pump will cause loss of NPSH to running NV **AND** NI pumps.

_____ • **IF** one ND pump operating in Cold Leg Recirc with suction aligned to NV **AND** NI pumps is secured,
THEN evaluate securing one of two trains of NV **AND** NI also to protect them in case the remaining ND pump trips.

_____ • Ensure core cooling will be maintained with remaining operating ECCS pumps.

_____ C. **IF** ND Pump is secured **AND** other ND pump is left on,
THEN recheck remaining ND pump flow.

_____ 1.15 **WHEN** desired to turn off H2 Igniters,
THEN perform the following: {NCR 01708556}

☐ 1.15.1 Determine if adequate core cooling has existed for this entire event.

_____ 1.15.2 **IF** adequate core cooling has existed for this entire event **AND** containment pressure is less than 0.25 psig,
THEN turn H2 Igniters off.

_____ 1.15.3 **IF** loss of adequate core cooling has occurred during this event,
THEN turn H2 Igniters off 24 hours after adequate core cooling has been established.

NOTE: DPC-1552.08-00-0260 assumes a 24-hour action time to open curtains following a pipe break in the doghouse.

- _____ 1.16 **IF** feed line **OR** steam line break has occurred inside doghouse **AND** doghouse top steam vent curtains have been lowered,
THEN operate curtains in applicable doghouse as necessary to reduce doghouse temperature for personnel accessibility **AND** long term EQ conditions.
{NCR 01645548}
- _____ 1.17 **IF** VC Safety Signal initiated (S/I, B/O or Manual) **AND** it is desired to secure one VC CR AHU to improve Control Room cooling or secure one VC OAPFT to improve ability to access Control Room,
THEN evaluate performing AP/0/A/5500/039 (Control Room Hi Temperature), considering the following: [NCR 01902982]
- Both VC CR AHUs start on a Safety Signal actuation. This degrades the VC System ability to cool the Control Room, since this reduces the air flow through the VC train with chiller in operation.
 - Both VC OAPFT start on a Safety Signal actuation. This make Control Room access difficult due to high DP across doors. It also creates higher pressure changes in Control Room when doors are opened and closed.
 - AP/0/A/5500/039 (Control Room Hi Temperature) provides guidance to secure the non-selected train VC CR AHU and provides guidance to evaluate securing one of the VC OAPFTs.

Technical Evaluation Checklist

- _____ 1.18 **IF** NS is started during this event **AND** subsequently stopped,
THEN perform the following: {NCR 01694189, NCR 01685462}

CAUTION: If an NS pump has been off for more than 12 hours, restarting that pump may result in NS piping failure in Reactor Building Annulus (water hammer concern).

- _____ 1.18.1 **IF** continued NS capability of secured NS pump is required,
THEN ensure secured NS pump is run at least once per 12 hours as follows:

- ☐ Refer to OP/1(2)/A/6200/007 (Containment Spray System).
- ☐ Run affected NS pump long enough to establish NS flow **AND** refill NS header.

- _____ 1.18.2 **WHEN** no longer running affected NS Pump(s) every 12 hours,
THEN perform the following within 12 hours of last NS Pump run:

- ☐ 1.18.2.1 Tagout NS Pump(s) that have been run **AND** will remain off over 12 hours.

NOTE: Do **NOT** clear NS Pump tags until NS headers drained.

- _____ 1.18.2.2 **WHEN** conditions allow,
THEN drain NS header(s) on secured NS train(s) per
OP/1(2)/A/6200/007 (Containment Spray System).

End of Enclosure

1. Position Requirements

- NOTE:**
- EMF 54A, EMF 54B, and EMF 22 are powered from Motor Control Center SMXE, which can be powered from Load Center 2SLXF (Normal), Load Center 1SLXF (Alternate) or the TSC DG (Backup).
 - A Loss of Offsite Power (LOOP) may cause SMXE to temporarily lose power causing these EMFs to fail to TRIP 2.
 - Satellite copy of procedure used in Step 1.1 is located inside metal bldg behind aux boiler room, near to TSC D/G.

- _____ 1.1 **IF** EMF-22 "POWER ON" light is dark **AND** both Units 1 and 2 have lost offsite power to TSC equipment,
THEN perform the following:
- _____ 1.1.1 Ensure Operations has restored power to SMXE using TSC DG per OP/0/A/6350/010 E (Operation of Shared Motor Control Center SMXE and TSC D/G), Enclosure 4.7 (TSC Diesel Generator Emergency Start).
- _____ 1.1.2 Do not continue in this enclosure until SMXE is energized.
- _____ 1.1.3 **WHEN** manpower allows,
THEN ensure TSC D/G is monitored approximately every 4 hours per OP/0/A/6350/010 E (Operation of Shared Motor Control Center SMXE and TSC D/G), Enclosure 4.11 (Monitoring the Operation of TSC D/G).
- _____ 1.2 **IF** a LOOP has occurred,
THEN manually reset EMF 54A, EMF 54B, **AND** EMF 22 to clear the signal.
- _____ 1.3 Turn on the EMF 54A **AND** EMF 54B in the TSC from the OAC computer room by pressing the Start button on each EMF control.
- _____ 1.4 Ensure EMF 22 (TSC Area Monitor) is functional.

- NOTE:**
- Alignment of TSC ventilation to filter mode is described below:
 - * If TSC power was manually aligned to be powered by TSC D/G, OP/0/A/6350/010 E (Operation of Shared Motor Control Center SMXE and TSC D/G), Enclosure 4.7 (TSC Diesel Generator Emergency Start) already performed action to ensure TSC ventilation is in filtered mode.
 - * TSC ventilation will be in filtered mode if TSC equipment (from SMXE) was energized when Unit 1 or Unit 2 Safety Injection occurred (automatic alignment).
 - * If Safety Injection did **NOT** occur **OR** Unit 2 offsite power lost after Safety Injection reset, it will **NOT** be in filter mode unless Step 1.5 is completed.
 - Air intakes sampled by EMF 54A and EMF 54B will shut on a TRIP 2 on the respective EMF
 - Resetting the TRIP 2 set-point automatically opens the air intakes

- _____ 1.5 Ensure TSC ventilation is aligned to filter mode as follows:
- _____ 1.5.1 **IF** TSC power was manually aligned to be powered by TSC D/G,
THEN GO TO Step 1.6.
- _____ 1.5.2 **WHEN** manpower allows,
THEN have operator place "VH-SW-3 OTSC-F-1 SELECTOR SWITCH" to "TEST" on Control Panel "OTSC-CP-1" (located Unit 2 TB, 786, behind TSC AHU filters, between 2N-28 and 2N-27).
- _____ 1.6 **IF** EMF 54A **AND** EMF 54B exceed the TRIP 2 set-point,
THEN raise the TRIP 2 set-point on the lowest reading EMF to reopen the air intake.
- _____ 1.7 **IF** EMF 54A **OR** EMF 54B has a valid TRIP 2,
THEN recommend to the RPM that an air sample be taken in the TSC.

Enclosure 4.2

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Dose Assessor TSC EMF Alignment

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- _____ 1.8 **WHEN** TSC no longer required to be activated for drill or event,
 THEN perform the following:
 - _____ 1.8.1 Ensure EMF 54A secured.
 - _____ 1.8.2 Ensure EMF 54B secured.
 - _____ 1.8.3 **IF** TSC activated for event,
 THEN have operator place "VH-SW-3 OTSC-F-1 SELECTOR SWITCH" to
 "NORMAL" on Control Panel "OTSC-CP-1" (located Unit 2 TB, 786,
 behind TSC AHU filters, between 2N-28 and 2N-27).

End of Enclosure