

Facility: RIVER BEND STATION Date of Examination: 10/30/2000 - 11/9/2000
 Examination Level (circle one): RO / **SRO** Operating Test Number: 1

Administrative Topic/Subject Description	Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions	Knowledge / Ability	IMPORTANCE	Additional K/A's	ORIGIN	NOTES
A.1	Conduct of Operations	JPM Demonstrate the ability to evaluate plant performance and make operational judgements based on operating characteristics/reactor behavior/and instrument interpretation Perform calculations per GOP-0004 for SLO.	2.1.7	4.4		NEW J05307r0
	Procedure Use and Control	JPM Demonstrate the ability to obtain and verify a controlled procedure copy. Prepare a Comment Only PAR on SOP-0040.	2.1.21	3.2		NEW J25402r0
A.2	Protective Tagging	JPM Identify components to prepare a Red Tag for a component including a sequence of hanging.	2.2.13	3.8		NEW J20102r0
A.3	Radiation Work Permits	JPM Entry and Egress from the Controlled Access Area (CAA). Include entry into a High Radiation Area.	2.3.1	3.0		NEW J60101r0
A.4	<i>Emergency Plan Assessment</i>	<i>JPM</i> <i>Perform the Emergency Plan Classification of a given event and complete the notification short form.</i>	<i>2.4.41</i>	<i>4.1</i>		<i>NEW</i> <i>J97601r0</i>

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System / JPM Title / Type Codes*	Safety Function	Planned Follow-up Questions: K/A/G - Importance - Description	Knowledge / Ability	IMP.	Additional K/A's	ORIGIN	NOTES
1. 217000 RCIC (N) (S) (A) Reset a RCIC turbine trip with an initiation signal present	II		A2.01 A4.03	3.8 3.4		NEW	J20905r0
2. 241000 <i>Reactor/Turbine Pressure Regulating System</i> <i>(M) (A) (S)</i> <i>Turbine Valve Testing for Control Valve #1 with a Control Valve Failure</i>	III		<i>K1.05</i> <i>A2.04</i>	<i>3.6</i> <i>3.8</i>		Modified	<i>J11007r1</i>

* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (P)lant, (R)CA

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3. <i>264000 Emergency Diesel Generators</i> <i>(S) (M)</i> <i>Parallel and Load Division III Diesel Generator</i>	VI		<i>K1.01</i> <i>K3.02</i> <i>A2.01</i>	4.1 4.0 3.6		Modified	<i>J30902r6</i>
4. 219000 RHR Suppression Pool Cooling <i>(P) (D)</i> Manually startup RHR "A" in Suppression Pool Cooling from Remote Shutdown Panel	V		A4.11	3.4		Bank	J20002r6

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5. 263000 DC Electrical Distribution (P) (N) Place the Division III 125 VDC Battery Charger in service	VI		K1.02 K4.02 A1.01 A3.01	3.2 3.1 2.5 3.2		NEW	J30501r0
6. 202001 Recirculation (N) (A) (S) Transfer Recirc Pumps from Fast to Slow Speed (Trip to off of one Recirc Pump).	I		A4.01	3.7 / 3.7	A2.03: 3.6/3.7 A3.07: 3.3/3.3 202002 A1.01 3.2/3.2 A2.01: 3.4/3.4 A4.07: 3.3/3.2	NEW	J05306r0

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7. 201001 Control Rod Drive Hydraulic (N)(P)(R) Swap Control Rod Drive Drive Water Filters	I		2.1.30	3.9 / 3.4		NEW	J05208r0
8. 205000 Shutdown Cooling System (ADHR/RHR) (S) (N) Operate ADHR/SPC and inject into the RPV from the Suppression Pool IAW EOP-0005, Enclosure 35	IV		G 2.1.31 G 2.4.6 EA1.08	4.2 3.1 3.8		NEW	J80035r0 EOP enclosure

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9. 261000 Standby Gas Treatment System (S) (A) (N) Start and Align SBGT Train A to the Auxiliary Building	IX		A4.02 A4.03 A4.09	3.1 3.0 2.7		NEW	J25704r0
10. 201005 Rod Control and Information System (C) (D) Bypass RC&IS Interlocks IAW EOP-0005, Enclosure 14	VII		K4.04 A2.06	3.5 3.2		BANK	J80014r4

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2. 241000 <i>Reactor/Turbine Pressure Regulating System</i> <i>(M) (A) (S)</i> <i>Turbine Valve Testing for Control Valve #1 with a Control Valve Failure</i>	III		<i>K1.05</i> <i>A2.04</i>	<i>3.6</i> <i>3.8</i>		Modified	<i>J11007r1</i>
3. 263000 DC Electrical Distribution (P) (N) Place the Division III 125 VDC Battery Charger in service	VI		K1.02 K4.02 A1.01 A3.01	3.2 3.1 2.5 3.2		NEW	J30501r0
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5. 201001 Control Rod Drive Hydraulic (N)(P)(R) Swap Control Rod Drive Drive Water Filters	I		2.1.30	3.9 / 3.4		NEW	J05208r0
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A.3	Radiation Work Permits	JPM Entry and Egress from the Controlled Access Area (CAA). Include entry into a High Radiation Area.	2.3.1	2.6		NEW J60101r0
A.4	<i>Emergency Implementing Procedures</i>	<i>QUESTIONS (2)</i> <i>Knowledge of the RO's responsibilities in emergency plan implementation</i>	<i>2.4.39</i>	<i>3.3</i>		<i>NEW</i> <i>Q2-4-2r0</i>

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			K4.02	3.1			
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RBS JOB PERFORMANCE MEASURE

JPM NUMBER: JPM-053-07, REVISION 0

TASK DESCRIPTION: **ADMINISTRATIVE TASK:** PERFORM THE CALCULATIONS IN GOP-0004 SINGLE LOOP OPERATION.

K/A REFERENCE & RATING: 2.17 3.7/4.4

TASK REFERENCE:

TESTING METHOD: SIMULATE PERFORMANCE: ACTUAL PERFORMANCE:
CONTROL ROOM: SIMULATOR: IN-PLANT:

COMPLETION TIME: 10 MINUTES

MAX. TIME: N/A

JOB LEVEL: RO/SRO

TIME CRITICAL: No

**EIP CLASSIFICATION
REQUIRED:** No

PRA RISK DOMINATE: No

ALTERNATE PATH (FAULTED): No

SAFETY FUNCTION GROUP: N/A

PREPARED BY: DAVID LOONEY **DATE:** 9/3/00

OPS REVIEW: J.A. CLARK **DATE:** 9/3/00

APPROVED BY: M.K. CANTRELL **DATE:** 9/3/00

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: PERFORM THE CALCULATIONS IN GOP-0004 SINGLE LOOP OPERATION.

REQUIRED POWER: ANY

IC NO.: N/A

NOTES: NONE

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

GOP-0004, SINGLE LOOP OPERATION, STEAM TABLES, COMBUSTION ENGINEERING.

REQUIRED MATERIALS:

GOP-0004, SINGLE LOOP OPERATION
STEAM TABLES, COMBUSTION ENGINEERING
CALCULATOR (SIMPLE)

REQUIRED PLANT CONDITION:

ANY

APPLICABLE OBJECTIVES:

SAFETY RELATED TASK:

(IF N/A LESS THAN 3.0)

N/A

CONTROL MANIPULATIONS:

NONE

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED. IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

IF IN-PLANT OR IN THE CONTROL ROOM.

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

READ TO THE OPERATOR:

I WILL EXPLAIN THE INITIAL CONDITIONS, AND PROVIDE INITIATING CUES. I MAY PROVIDE CUES DURING THE PERFORMANCE OF THIS JPM. I WILL ASK FOLLOW-UP QUESTIONS AS PART OF THIS JPM. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JPM WILL BE SATISFIED. YOU SHOULD INFORM ME WHEN YOU HAVE COMPLETED THE TASK.

INITIAL CONDITIONS: REACTOR RECIRC PUMP 'B' HAS TRIPPED DUE TO A FAILED RELAY. RECIRC LOOP FLOW INDICATOR C51-R614, LOOP A/B FLOW RECORDER DID NOT ACT AS EXPECTED WHEN THE TRIP OCCURRED AND ITS READINGS ARE SUSPECT. THE PLANT HAS BEEN STABILIZED WITH THE FOLLOWING CONDITIONS:

- RECIRC LOOP 'B' DISCHARGE VALVE HAS BEEN CLOSED FOR THE REQUIRED TIME AND HAS BEEN RE-OPENED.
- THE PLANT PROCESS COMPUTER INDICATES STEAM DOME PRESSURE IS 1014 PSIG
- CORE THERMAL POWER IS 2107 MWt
- RECIRC LOOP 'A' B33-R612A, TOTAL FLOW INDICATES 41.4 MLBM/HR FLOW
- RECIRC LOOP 'B' B33-R612B, TOTAL FLOW INDICATES 0.0 MLBM/HR FLOW
- TOTAL FLOW ON B33-R613, TOTAL FLOW/ Δ PRESSURE INDICATES 41.4 MLBM/HR FLOW
- C51-R614, LOOP A/B FLOW RECORDER, LOOP 'A' INDICATES 28.4 KGPM FLOW
- C51-R614, LOOP A/B FLOW RECORDER, LOOP 'B' INDICATES 1.4 KGPM FLOW
- PROCESS COMPUTER INDICATES LOOP 'A' TEMPERATURE IS 528 $^{\circ}$ F
- PROCESS COMPUTER INDICATES LOOP 'B' TEMPERATURE IS 519 $^{\circ}$ F
- PROCESS POINT B33RA005 IS 10.930 MLBM/HR FLOW
- PROCESS POINT B33RA006 IS 10.928 MLBM/HR FLOW
- PROCESS POINT B33RA007 IS 0.307 MLBM/HR FLOW
- PROCESS POINT B33RA008 IS 0.330 MLBM/HR FLOW

INITIATING CUE: THE OSS HAS DIRECTED YOU TO INDEPENDENTLY VERIFY THE STA. AND CBS CALCULATIONS CONTAINED IN GOP-0004, SINGLE LOOP OPERATION FOR STEP 4.1 (SHOW THE CALCULATION FOR STEP 4.1), STEP 4.3.2 (SHOW THE CALCULATION FOR STEP 4.3.2), AND STEP 7.1 (SHOW THE CALCULATION FOR STEP 7.1) USE THE APPLICABLE VALUES GIVEN IN THE INITIAL CONDITIONS FOR YOUR CALCULATIONS.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 1. CALCULATE GOP-0004, STEP 4.1	CANDIDATE INDICATES 72.8% +/-0.1% $2107 \text{ MWT} / 2894 \text{ MWT} = 0.72806$	---	NOTE TO EVALUATOR: THIS VALUE IS WITHIN THE LIMITS OF SINGLE LOOP OPERATION.
* 2. CALCULATE GOP-0004, STEP 4.3.2	CANDIDATE INDICATES 28.8 KGPM +/- 0.1 KGPM $10.930 \times 0.02112 \times 124.68 = 28.781 \text{ KGPM}$ OR $10.928 \times 0.02112 \times 124.68 = 28.776 \text{ KGPM}$	---	NOTE TO EVALUATOR: THIS VALUE IS WITHIN THE LIMITS OF SINGLE LOOP OPERATION.
* 3. CALCULATE GOP-0004, STEP 7.1	CANDIDATE USES CALCULATION IN STEP 4.1 OR PERFORMS SAME CALCULATION AGAIN, AND INDICATES COMPARATIVE VALUE 32.5% (+/- 0.1%) $72.8\% >$ $[2.5 \times ((41.4 \text{ MLBM/HR}/84.5 \text{ MLBM/HR}) \times 100\%)] - 90$ $72.8\% > [2.5 \times 49.0\%] - 90$ $72.8\% > 122.5\% - 90$ $72.8\% > 32.5\%$	---	NOTE TO EVALUATOR: THIS VALUE IS WITHIN THE LIMITS OF SINGLE LOOP OPERATION. NOTE TO EVALUATOR: THE THERMAL POWER CALCULATION IN STEP 4.1 IS USED TO COMPARE IN STEP 7. THIS IS NOT DOUBLE JEOPARDY BECAUSE BOTH CALCULATIONS ARE CRITICAL STEPS, A FAILURE TO CALCULATE PROPERLY ON THE FIRST CASE CONSTITUTES JPM FAILURE, FAILING THE JPM AGAIN FOR THIS WILL NOT EFFECT THE FINAL OUTCOME [FAILURE].

TERMINATION CRITERIA: CALCULATIONS COMPLETE.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____ KGN: _____

EVALUATOR: _____

DATE: _____ [LICENSE (CIRCLE ONE): RO / SRO No. of ATTEMPTS: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

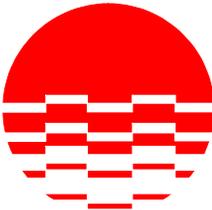
RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

***ERROR! REFERENCE SOURCE NOT FOUND.**



ENERGY

RIVER BEND STATION

ERROR! REFERENCE SOURCE NOT FOUND.

***ERROR! REFERENCE SOURCE NOT FOUND.**

****SINGLE LOOP OPERATION***

PROCEDURE NUMBER:
FOUND.

***ERROR! REFERENCE SOURCE NOT**

REVISION NUMBER:
FOUND.

***ERROR! REFERENCE SOURCE NOT**

Effective Date:

*** _____**

NOTE : SIGNATURES ARE ON FILE.

***INDEXING INFORMATION**

TABLE OF CHANGES

LETTER DESIGNATION TRACKING NUMBER	DETAILED DESCRIPTION OF CHANGES

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1 **PURPOSE**

1.1 Provide guidelines for single Recirculation Loop Operation.

2 **REFERENCES**

- 2.1 Technical Requirements Manual
- 2.2 RBS Technical Specifications
- 2.3 ADM-0003, Procedure Preparation, Review And Approval
- 2.4 ADM-0006, Thermal Hydraulics Stability Controls
- 2.5 AOP-0024, Thermal Hydraulic Stability Controls
- 2.6 GOP-0001, Plant Startup
- 2.7 GOP-0002, Power Decrease/Plant Shutdown
- 2.8 OSP-0007, Preparation Of Operations Section Procedure
- 2.9 SOP-0003, Reactor Recirculation
- 2.10 STP-000-0001, Daily Operating Logs
- 2.11 Commitment 00328, Preparation of GOP's Per FSAR
- 2.12 MR 95-037
- 2.13 MR 96-0004
- 2.14 SER 7-95
- 2.15 GE Document 24A1912, Jet Pump Cavitation (SLO)
- 2.16 ISEG OER 89-004, Single Loop Operation
- 2.17 RICSIL NO. 006 SUPP 2 and APMS-91-150, Single Loop Operation
- 2.18 ER 97-0172

3 **PRECAUTIONS**

3.1 See Attachments 1 and 2 for appropriate precautions.

4 **RECORDS**

4.1 Record disposition (i.e. handling, interim storage, and transfer to PPF) shall be in accordance with ADM-0006, Control Of Plant Records.

SINGLE LOOP OPERATION

STEP		INITIALS DATE/TIME
3	<p style="text-align: center;"><u>NOTE</u></p> <p><i>Process computer point B33NA01V should be used to determine core flow when one recirc pump is OFF. B33-R613, TOTAL CORE FLOW, (Red Pen) may be inaccurate in this configuration and should <u>not</u> be used.</i></p> <p><i>Step 3 may be required to be performed every 15 minutes during a startup or a power increase until greater than 30% thermal power and greater than 50% recirculation loop flow is obtained.</i></p> <p><i>Step 3 is applicable during single loop operation when either reactor thermal power is less than 30% of rated thermal power (868 MWT) or recirculation loop flow in the operating loop is less than 50% of rated flow (16.5 kgpm).</i></p> <p>WITHIN 15 MINUTES PRIOR TO EITHER AN INCREASE IN REACTOR THERMAL POWER OR AN INCREASE IN RECIRCULATION LOOP FLOW RATE, PERFORM DATA SHEET 1, DIFFERENTIAL TEMPERATURE VERIFICATION. (SR 3.4.11.8 AND SR 3.4.11.9)</p>	<p>L</p>
4	<p style="text-align: center;"><u>NOTE</u></p> <p><i>Steps 4, 5, and 6 should be performed concurrently but completed within their respective time limits.</i></p> <p><i>Record initial reading here then every 12 hours on STP-000-0001, Daily Operating Logs.</i></p> <p>WITHIN ONE HOUR OF ENTERING SINGLE LOOP OPERATION, VERIFY THE FOLLOWING:</p> <p>4.1. THERMAL POWER IS LESS THAN OR EQUAL TO 83% RATED THERMAL POWER (2402 MWTH)</p> $\frac{\text{CMWTH}}{2894} = \text{_____} \% \leq 83\%$ <p style="text-align: center;">(TSR 3.4.1.1.2)</p> <p style="text-align: center;">AND</p> <p>4.2. AT H13-P680, B33-HYVF060A AND B33-HYVF060B, FLOW CONT VALVE, IS IN LOOP MANUAL. (TSR 3.4.1.1.3)</p>	<p>_____</p> <p>_____</p> <p>L</p>

SINGLE LOOP OPERATION

STEP		INITIALS DATE/TIME
4.3.	<p>TOTAL LOOP FLOW IN RUNNING LOOP IS LESS THAN 33 KGPM USING ONE OF THE FOLLOWING METHODS (N/A METHOD NOT USED). (TSR 3.4.1.1.1)</p> <p>1. OBTAIN FLOW FROM C51-R614, LOOP A/B FLOW RECORDER, FOR THE OPERATING LOOP.</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">KGPM</p> <p>2. USE COMPUTER POINT FOR THE OPERATING LOOP (LOOP A - B33NA005 OR B33NA006, LOOP B - B33NA007 OR B33NA008) AND CONVERT FROM MLBM/HR TO KGPM USING THE FOLLOWING FORMULA:</p> $\frac{\text{(FLOW)}}{\text{(FLOW)}} \times \frac{\text{(SV)}}{\text{(SV)}} \times \frac{\text{(KGPM)}}{\text{(KGPM)}} \times (124.68) = \text{_____}$ <p>WHERE:</p> <p>FLOW = LOOP FLOW FROM COMPUTER POINT IN MLBM/HR, SV = SPECIFIC VOLUME FROM STEAM TABLES (Vf) (DEPENDENT ON LOOP TEMP) IN FT³/LBM.</p>	<p>_____</p> <p>N/A</p> <p>_____</p>
5	<p>WITHIN 24 HOURS OF SINGLE LOOP OPERATION PERFORM THE FOLLOWING: (CO 3.4.1.B.3, TS 3.2.1, AND CO 3.4.1.B.4, 3.2.2)</p> <p>5.1. VERIFY ON A MONITOR CASE EDIT THAT THE CORRECTION FACTOR FOR MAPRAT IS IN ACCORDANCE WITH THE COLR FOR SINGLE LOOP OPERATION, AND THE OPTION FLAG INDICATES SINGLE LOOP. IT MAY BE NECESSARY TO DEMAND A MONITOR CASE IF IT HAS NOT EXECUTED AUTOMATICALLY.</p> <p style="text-align: center;">NOTE</p> <p style="text-align: center;"><i>An administrative limit of 0.99 shall be applied to MFLCPR. This limit may be applied by the computer, during extended single loop operation. Reactor Engineer shall be consulted if in single loop operation for an extended period of time (Greater than 12 hours) to determine if the limit has been applied in the computer.</i></p> <p>5.2. VERIFY ON A MONITOR CASE EDIT THAT MFLCPR IS LESS THAN OR EQUAL TO 0.99, OR LESS THAN OR EQUAL TO 1.000 IF LIMIT WAS CHANGED IN THE 3D MONICORE COMPUTER BY REACTOR ENGINEERING.</p>	<p>_____</p> <p>L</p> <p>_____</p> <p style="text-align: right;">_____</p> <p style="text-align: right;">L</p>

SINGLE LOOP OPERATION

STEP		INITIALS DATE/TIME
6	WITHIN 24 HOURS OF ENTERING SINGLE LOOP OPERATION VERIFY APRM SLO/TLO TOGGLE SWITCHES ARE IN SLO AND STP-505-5203(4) DIVISION 1(2) FLOW CONTROL TRIP REFERENCE (FCTR) CARD SWITCH VERIFICATION ARE COMPLETE. (CCO 3.4.1.B.5) CHECK OFF WHEN COMPLETE: A B C D E F G H	 <hr/> <hr/>
7	REFER TO ATTACHMENT 3, RBS SINGLE LOOP OPERATION POWER/FLOW MAP, DURING POWER CHANGES TO PREVENT ENTRY INTO MONITORED OR RESTRICTED REGIONS. 7.1. CONFIRM THAT THERMAL POWER (%) IS GREATER THAN $[2.5 \times (\text{CORE FLOW IN } \%) - 90]$ TO AVOID EXCESSIVE CAVITATION OF THE JET PUMPS.	
8	REFER TO ROP-0024, CORE THERMAL HYDRAULICS STABILITY CONTROLS, FOR ACTIONS IF THE REGIONS ARE ENTERED.	L
9	WHEN CONDITIONS PERMIT, THEN ACTIVATE THE CORE MONITOR AS DESIRED.	

RETURN TO TWO LOOP OPERATION

<u>INITIATED</u>	<u>COMPLETED</u>
ON: DATE/TIME: _____ BY: NCO _____ / ____ _____ (SIGNATURE) KCN OSS _____ / ____ _____ (SIGNATURE) KCN	ON: DATE/TIME: _____ BY: NCO _____ / ____ _____ (SIGNATURE) KCN OSS _____ / ____ _____ (SIGNATURE) KCN

OTHER DOCUMENTS ATTACHED: _____

REMARKS:

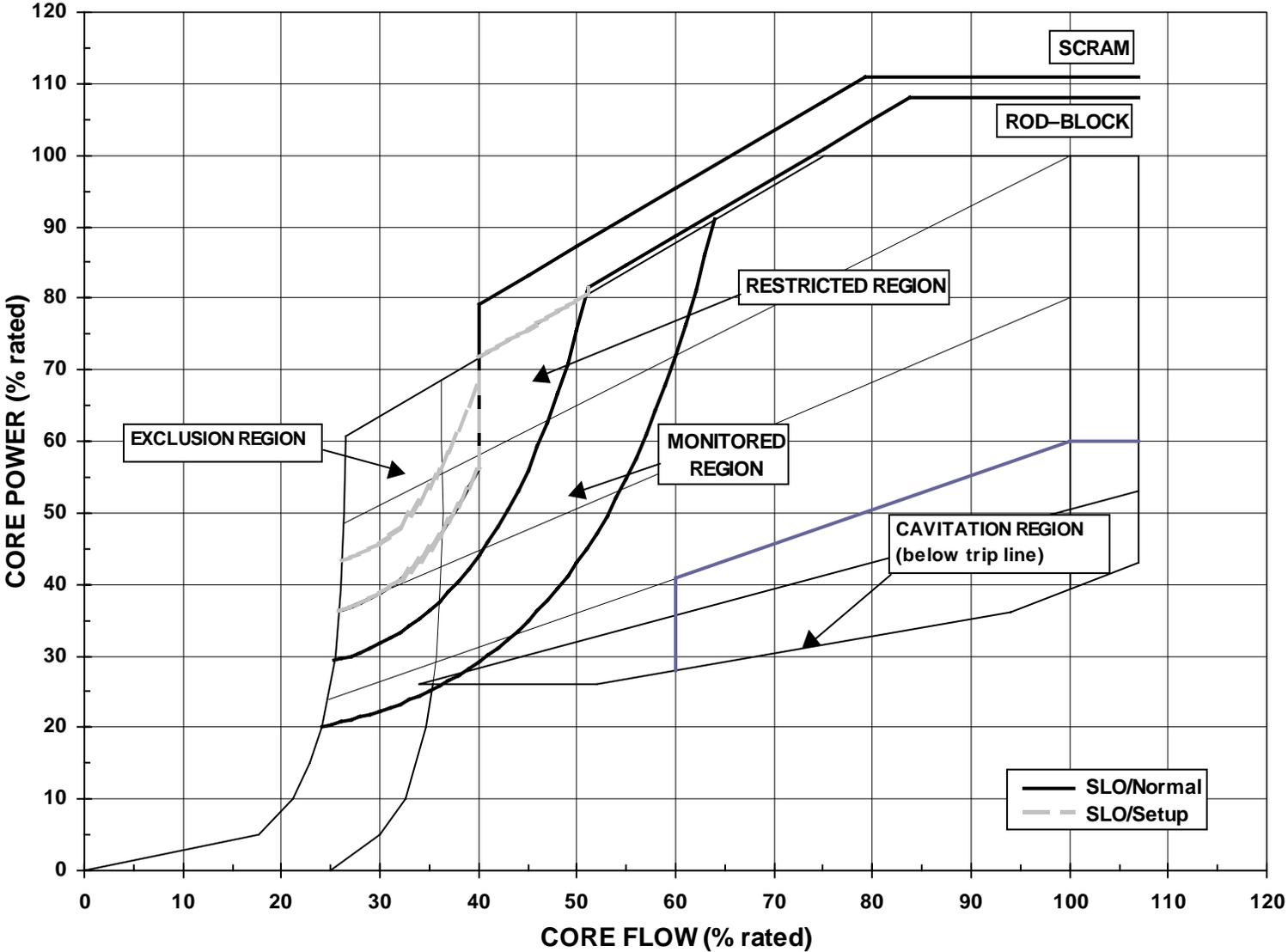
3.0 PRECAUTIONS

- 3.1 During Single Loop operation frequently monitor Thermal Power Vs Core Flow curves in AOP-0024, Thermal Hydraulics Stability Controls.
- 3.2 During performance of Step 2.1 it is anticipated that the plant will approach the Restricted Region of the Power/Flow map as defined in AOP-0024, Thermal Hydraulics Stability Controls. Therefore if core conditions allow, or can be adjusted to ensure FCBB is less than 1.0, then performance of Step 1 is recommended. If the Restricted Region is not entered, Step 1 can be skipped at the OSS discretion.

RETURN TO TWO LOOP OPERATION

STEP		INITIALS DATE/TIME
1	<p>IF PERFORMANCE OF STEP 2.1 WILL PLACE THE PLANT INTO THE RESTRICTED REGION OF THE POWER/FLOW MAP AS DEFINED IN GOP-0024, THERMAL HYDRAULIC STABILITY CONTROLS THEN PRIOR TO ENTERING THE RESTRICTED REGION PERFORM THE FOLLOWING :</p> <p>4.2 Verify FCBB is less than or equal to 1.000.(TS 3.2.4)</p> <p>4.3 Place each APRM FCTR in 'Setup' by depressing the Normal/Setup pushbutton as necessary to alternate between Normal & Setup arrays until the Normal/Setup LED indication light is Yellow indicating that the 'Setup' trip reference boundaries are in effect.</p>	<p>_____</p> <p>_____</p>
2	<p>TO PREVENT EXCESSIVE THERMAL GRADIENTS AND POSSIBLE FALSE PUMP STARTS, WITHIN 15 MINUTES PRIOR TO ATTEMPTED START OF AN IDLE RECIRCULATION LOOP, ENSURE THE FOLLOWING TEMPERATURE DIFFERENTIALS AND CORE FLOW ARE WITHIN THE LIMITS BELOW:</p> <p>2.1 DIFFERENCE BETWEEN THE BOTTOM HEAD COOLANT TEMPERATURE AND THE REACTOR PRESSURE VESSEL (RPV) COOLANT TEMPERATURE IS LESS THAN OR EQUAL TO 100°F. (NOT APPLICABLE WHEN REACTOR STEAM DOME PRESSURE IS LESS THAN 25 PSIG) (SR 3.4.11.3)</p> <p>2.2 DIFFERENCE BETWEEN THE REACTOR COOLANT TEMPERATURE IN THE RECIRCULATION LOOP TO BE STARTED AND THE RPV COOLANT TEMPERATURE IS LESS THAN OR EQUAL TO 50°F. (SR 3.4.11.4)</p> <p>2.3 THE OPERATING RECIRCULATION LOOP FLOW RATE IS LESS THAN OR EQUAL TO 16,500 GPM. (TSR 3.4.11.2.1)</p>	<p>_____</p> <p>_____</p> <p>_____</p>
3	RESTART THE IDLE RECIRCULATION PUMP PER SOP-0003, REACTOR RECIRCULATION.	
4	VERIFY APLGR LIMITS ARE RESTORED TO DUAL LOOP OPERATING LIMITS AS FOLLOWS: (TS 3.2.1) WHEN IN DUAL LOOP CONFIRM THAT THE OPTION FLAG INDICATES DUAL LOOP MODE ON A MONITOR CASE EDIT.	
5	<p>RESTORE APRM FCTR SLO/TLO TOGGLE SWITCHES TO TLO and IGC COMPLETE STP-505-5203(4) DIVISION 1(2) FLOW CONTROL TRIP REFERENCE (FCTR) CARD SWITCH VERIFICATION ARE COMPLETE. (LCO 3.4.1.B.5)</p> <p>CHECK OFF WHEN COMPLETE:</p> <p>A B C D E F G H</p>	
6	ACTIVATE THE CORE MONITOR AS NEEDED.	
7	REFER TO GOP-0001, PLANT STARTUP, OR GOP-0002, POWER DECREASE/PLANT SHUTDOWN, FOR FURTHER POWER MANEUVERING.	

RBS SINGLE LOOP OPERATION POWER/FLOW MAP



DIFFERENTIAL TEMPERATURE VERIFICATION

	**** COMPUTER POINTS B33N033 AND B33N035 OR B33N034 AND B33N036 MAY BE USED.
--	--

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

Reactor Recirc Pump 'B' has tripped due to a failed relay. Recirc Loop flow indicator C51-R614, Loop A/B Flow Recorder did not act as expected when the trip occurred and its readings are suspect. The plant has been stabilized with the following conditions:

- Recirc Loop 'B' discharge valve has been closed for the required time and has been re-opened.
- The plant process computer indicates steam dome pressure is 1014 PSIG
- Core thermal power is 2107 MWt
- Recirc Loop 'A' B33-R612A, total flow indicates 41.4 MLBM/HR FLOW
- Recirc Loop 'B' B33-R612B, total flow indicates 0.0 MLBM/HR FLOW
- Total flow on B33-R613, total flow/ Δ pressure indicates 41.4 MLBM/HR FLOW
- C51-R614, Loop A/B Flow Recorder, Loop 'A' indicates 28.4 KGPM FLOW
- C51-R614, Loop A/B Flow Recorder, Loop 'B' indicates 1.4 KGPM FLOW
- Process computer indicates Loop 'A' temperature is 528 $^{\circ}$ F
- Process computer indicates Loop 'B' temperature is 519 $^{\circ}$ F
- Process point B33NA005 is 10,930 MLBM/HR FLOW
- Process point B33NA006 is 10,928 MLBM/HR FLOW
- Process point B33NA007 is 0,307 MLBM/HR FLOW
- Process point B33NA008 is 0,330 MLBM/HR FLOW

INITIATING CUES:

The OSS has directed you to independently verify the STA and CRS calculations contained in GOP-0004, Single Loop Operation for Step 4.1 (show the calculation for Step 4.1), Step 4.3.2 (show the calculation for Step 4.3.2), and Step 7.1 (show the calculation for Step 7.1) use the applicable values given in the Initial Conditions for your calculations.

TERMINATION CRITERIA:

Calculations Complete.

RBS JOB PERFORMANCE MEASURE

JPM NUMBER: JPM-201-02, REVISION 0

TASK DESCRIPTION: ADMINISTRATIVE TASK; PREPARATION FOR TAG OUT AND DRAINING OF SLS*STRAT1B, STANDBY LIQUID CONTROL PUMP 'B' SUCTION STRAINER.

K/A REFERENCE & RATING: 2.2.13 3.6/3.8

TASK REFERENCE:

TESTING METHOD: SIMULATE PERFORMANCE: ACTUAL PERFORMANCE:
CONTROL ROOM: SIMULATOR: IN-PLANT:

COMPLETION TIME: 15 MINUTES

MAX. TIME: N/A

JOB LEVEL: RO/SRO

TIME CRITICAL: No

**EIP CLASSIFICATION
REQUIRED:** No

PRA RISK DOMINATE: No

ALTERNATE PATH (FAULTED): No

SAFETY FUNCTION GROUP: N/A

PREPARED BY: DAVID LOONEY **DATE:** 9/3/00

OPS REVIEW: J.A. CLARK **DATE:** 9/3/00

APPROVED BY: M.K. CANTRELL **DATE:** 9/3/00

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: ADMINISTRATIVE TASK: MANUALLY TAG OUT SLS*STAT-B, STANDBY LIQUID CONTROL PUMP 'B' SUCTION STRAINER.

REQUIRED POWER: N/A

IC NO.: N/A

NOTES: NONE

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

PIQ-27-16A, SOP-0028, STANDBY LIQUID CONTROL, ADM-0027, PROTECTIVE TAGGING

REQUIRED MATERIALS:

PIQ-27-16A, SOP-0028, STANDBY LIQUID CONTROL, ADM-0027, PROTECTIVE TAGGING

REQUIRED PLANT CONDITION:

ANY

APPLICABLE OBJECTIVES:

SAFETY RELATED TASK:

N/A

(If K/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

NONE

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENT SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

If In-Plant or In the Control Room.

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

Read to the Operator,

I will explain the initial conditions, and provide initiating cues. I may provide cues during the performance of this JPM. I will ask follow-up questions as part of this JPM. When you complete the task successfully, the objective for this JPM will be satisfied. You should inform me when you have completed the task.

INITIAL CONDITIONS: The tagging computer has suffered a system failure that cannot be immediately repaired. During a pump run testing just completed, SLC pump 'B' had abnormal suction pipe noise and vibration when operating, the suction strainer is suspect.

INITIATING CUE: To expedite trouble shooting, you are to prepare a list of components to tag-out for SLS*STATIB Standby Liquid Control Pump 'B' Suction Strainer, include the position and sequence of tag placement for draining and inspection.

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 1. Tag Control Room Control switch Tag EHS-MCC 2B Breaker 2C Pump Motor	Tag Control Room Control switch - neutral and covered. EHS-MCC 2B BKR 2C Pump Motor - open/off.	_____	NOTE TO EXAMINER: Tagging the cover is not critical, task can be safely done without this tag. These can be done in any order but prior to next step.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 3. PUMP DISCHARGE ISOLATION (DOWN STREAM OF STRAINER) PUMP SUCTION AND STRAINER UPSTREAM ISOLATION	TAG CLOSED (41-VF003) TAG CLOSED (41-VF002)	_____	THESE CAN BE DONE IN ANY ORDER BUT PRIOR TO NEXT STEP.
* 4. DRAIN STRAINER FOR INSPECTION.	REMOVE CAP AND OPEN SLS-V3001 (DRAIN). AND REMOVE CAP AND OPEN SLS-V28 (VENT)	_____	THESE STEPS TO BE ACCOMPLISHED LAST.

TERMINATION CRITERIA: COMPONENTS IDENTIFIED AND HANGING SEQUENCE AND DRAINING IDENTIFIED.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____ KCN: _____

EVALUATOR: _____

DATE: _____ [LICENSE (CIRCLE ONE): _____] RO / SRO No. of Attempts: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

THE TAGGING COMPUTER HAS SUFFERED A SYSTEM FAILURE THAT CANNOT BE IMMEDIATELY REPAIRED. DURING A PUMP RUN TESTING JUST COMPLETED SLC PUMP 'B' HAD ABNORMAL SUCTION PIPE NOISE AND VIBRATION WHEN OPERATING. THE SUCTION STRAINER IS SUSPECT.

INITIATING CUES:

TO EXPEDITE TROUBLE SHOOTING, YOU ARE TO PREPARE A LIST OF COMPONENTS TO TAG-OUT FOR SLS*STRT1B Standby Liquid Control Pump 'B' SUCTION STRAINER, INCLUDE THE POSITION AND SEQUENCE OF TAG PLACEMENT FOR DRAINING AND INSPECTION.

TERMINATION CRITERIA:

COMPONENTS IDENTIFIED AND HANGING SEQUENCE AND DRAINING IDENTIFIED.

RBS JOB PERFORMANCE MEASURE

JPM NUMBER: JPM-254-02, REVISION 0

TASK DESCRIPTION: ADMINISTRATIVE TASK: OBTAIN AN OFFICIAL WORK COPY OF SOP-0040 AND WRITE A PAR.

K/A REFERENCE & RATING: 2.1/21 3.1/32

TASK REFERENCE:

TESTING METHOD: SIMULATE PERFORMANCE: ACTUAL PERFORMANCE: X
CONTROL ROOM: SIMULATOR: IN-PLANT: X

COMPLETION TIME: 27 MINUTES

MAX. TIME: N/A

JOB LEVEL: RO/SRO

TIME CRITICAL: No

EIP CLASSIFICATION No
REQUIRED:

PRA RISK DOMINATE: No

ALTERNATE PATH (FAULTED): No

SAFETY FUNCTION GROUP: ADMINISTRATIVE PERFORMANCE

PREPARED BY: DAVID LOONEY DATE: 9/3/00

OPS REVIEW: J.A. CLARK DATE: 9/3/00

APPROVED BY: M.K. CANTRELL DATE: 9/3/00

**RBS JOB PERFORMANCE MEASURE
SIMULATOR SETUP SHEET**

TASK DESCRIPTION: ADMINISTRATIVE TASK: OBTAIN AN OFFICIAL WORK COPY OF SOP-0040 AND WRITE A PAR.

REQUIRED POWER: N/A

IC NO.: N/A

NOTES: N/A

RBS JOB PERFORMANCE MEASURE DATA SHEET

REFERENCES FOR DEVELOPMENT:

SOP-0040, HYDROGEN MIXING, PURGE, RECOMBINERS, AND IGNITORS; ADM-0006, CONTROLLED DOCUMENTS AND
PLANT RECORDS; RBNP-0001, CONTROL AND USE OF RBS PROCEDURES

REQUIRED MATERIALS:

RBNP-0001, CONTROL AND USE OF RBS PROCEDURES

CANDIDATE MAY ALSO USE A CALCULATOR, BUT IS NOT REQUIRED.

REQUIRED PLANT CONDITION:

ANY

APPLICABLE OBJECTIVES:

SAFETY RELATED TASK:

N/A

(IF N/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

N/A

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

If In-Plant or In the Control Room:

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

Read to the Operator:

I will explain the initial conditions, and provide initiating cues. I may provide cues during the performance of this JPM. I will ask follow-up questions as part of this JPM. When you complete the task successfully, the objective for this JPM will be satisfied. You should inform me when you have completed the task.

INITIAL CONDITIONS: You have been designated to improve SOP-0040, Hydrogen Mixing, Purge, Recombiners, by eliminating the opportunity to make a mathematical error while performing in a more stressful environment.

INITIATING CUE:

Obtain an Official Work Copy of SOP-0040, Hydrogen Mixing, Purge, Recombiners.

Verify it is current including any approved outstanding changes.

Write a Comment (CM) PAR to change the method of determining Initial Hydrogen Recombiner kW setting from a calculation to a look-up by doing the following:

- Replace the steps in SOP-0040 for determining Initial Hydrogen Recombiner kW setting with one step that states "Determine the required Recombiner Power Setting by using Attachment 5, Recombiner Power vs Containment Pressure" (or words to this effect).
- Rename Attachment 5, from "Recombiner Power Correction Factor vs Containment Pressure Curve" to "Recombiner Power vs Containment Pressure".
- Rename the vertical axis from "Pressure Factor (Cp)" to "Recombiner Power (kW)".
- Replace the Cp factors on the vertical axis with kW by multiplying the Cp number by 43kW. Do not round off calculations.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 1. Obtain an Official Work Copy of SOP-0040, HYDROGEN MIXING, PURGE, RECOMBINERS	SOP-0040, HYDROGEN MIXING, PURGE, RECOMBINERS STAMPED IN RED OFFICIAL WORK COPY.	_____	
* 2. VERIFY IT IS CURRENT INCLUDING ANY APPROVED OUTSTANDING CHANGES	THIS CAN BE DONE BY PHONE CALL TO CIRC, IF THE COPY MADE AND STAMPED BY CIRC THIS IS ALREADY ACCOMPLISHED, OR THIS CAN BE LOOKED UP ON NORMS DATABASE (COMPUTER BASED SYSTEM).	_____	
* 3. WRITE A COMMENT (CM) PAR TO CHANGE THE METHOD OF DETERMINING INITIAL HYDROGEN RECOMBINER KW SETTING	THE PAR SHOULD BE EVALUATED AGAINST THE ONE ATTACHED TO THIS JPM. THE CANDIDATE MAY ATTACH OTHER PARTS OF THE PROCEDURE THAT REFERENCE ATTACHMENT 5, OR THEY MAY ATTACH THE ENTIRE PROCEDURE	_____	<p>WHEN OBTAINING A TRACKING NUMBER FROM THE ASG, THEN:</p> <p>CUE: USE THE WORDS NRC EXAM FOR A TRACKING NUMBER.</p> <p>WHEN THE CANDIDATE INDICATES THEY ARE DONE FILLING OUT THE PAR, THEN:</p> <p>CUE: SUBMIT THE PAR TO ME (THE EXAMINER, DO NOT SUBMIT TO THE ASG).</p>

TERMINATION CRITERIA: PAR FORM COMPLETE WITH ATTACHED MARKED UP PROCEDURE PAGES.

**RBS JOB PERFORMANCE MEASURE
VERIFICATION OF COMPLETION**

OPERATOR: _____ SSN: _____ KCN: _____

EVALUATOR: _____

DATE: _____ [LICENSE (CIRCLE ONE):] RO / SRO No. Of Attempts: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE



PAR

TRACKING NO. NRC EXAM

PAGE _____ OF _____

PROCEDURE ACTION REQUEST

PROCEDURE NO SOP-0040	CURRENT REV 10A [NOTE TO EVALUATOR: THIS MAY CHANGE PRIOR TO EXAM]	PROCEDURE TITLE HYDROGEN MIXING, PURGE, RECOMBINERS, AND IGNITORS
---------------------------------	--	---

TYPE OF ACTION:

<input type="checkbox"/> PROCEDURE REVISION (PR)	<input type="checkbox"/> EDITORIAL CHANGE (EC) <input type="checkbox"/> INCORP EC IMMEDIATELY
<input type="checkbox"/> NEW PROCEDURE (NP)	<input checked="" type="checkbox"/> COMMENT (CM)
<input type="checkbox"/> CHANGE NOTICE (CN) <input type="checkbox"/> OTHER	<input type="checkbox"/> CANCEL PROCEDURE (CX)

Change Notice (CN) is not allowed if there is a Change of Intent

PROCEDURE ACTION BASIS *(Provide detailed description of the procedure change and the basis for that change. Include reference to applicable documents causing change; attach continuation sheets if necessary):*

FOR DETAIL OF PROCEDURE CHANGE, SEE ATTACHED [NOTE TO EVALUATOR: THE CANDIDATE MAY APPLY THE DETAIL THAT IS GIVEN IN THE JPM DESCRIBING THE CHANGE, THIS IS ACCEPTABLE BUT MARK-UP IS EXPECTED].	REASON FOR CHANGE: ELIMINATE THE OPPORTUNITY TO MAKE A MATHEMATICAL ERROR WHILE PERFORMING IN THE MORE STRESSFUL CONDITIONS OF ELIMINATING HYDROGEN FROM CONTAINMENT POST [OGA (OR WORDS TO THIS EFFECT)].
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CN SAFETY EVALUATION SCREENING REVIEWER *(KCN/DATE)* _____
Must be 50.59 qualified
(Attach applicable forms from LI-101)

CHECKLIST:

<input type="checkbox"/> ACCREDITED TRAINING PROGRAM AFFECTED	<input type="checkbox"/> TRAINING REQUIRED	<input type="checkbox"/> BEFORE ISSUE <i>or</i> <input type="checkbox"/> AFTER ISSUE
<input type="checkbox"/> CHANGE TO THE TECH SPEC / STP / LSFT CROSS REFERENCE MATRIX <i>(Attach change request from ADM-0015 if applicable)</i>	<input type="checkbox"/> VERIFY LICENSEE COMMITMENTS <i>(All changes)</i>	<input type="checkbox"/> CROSS DISCIPLINE REVIEW

REVIEW AND APPROVAL:

SIGNATURE/KCN/DATE PREPARER <u>Signed / 0000 / mo/dy/yr</u> SUPV/TECH VERIF* _____ I-SRD <i>(CN Only)</i> _____ APPROVAL _____	VALIDATION FRG REVIEW FRG MEETING NO PROOFER <i>(CNIcorp)</i> EFFECTIVE DATE:	SIGNATURE/KCN/DATE _____ _____ _____ _____ _____
--	---	---

**(Must be an individual other than the preparer)*

RBS JOB PERFORMANCE MEASURE

4.3 Startup of the Hydrogen Recombiners

NOTE

All switch operations will take place at panel H13-P808.

- 4.3.1. Turn the HYDROGEN RECOMBINER A(B) POWER OUTPUT switch to ON.
- 4.3.2. Read the Post-LOCA Containment Pressure from one of the indications listed below and determine from plant operating records the Pre-LOCA Containment Temperature.

INDICATOR	PANEL
CMS-ES45A	H13-P819
CMS-ES45B	H13-P820
CMS-PR2A, BLUE PEN	H13-P808

- 4.3.3. ~~Determine Pressure Factor (C_p) using Error! Reference source not found.,
Recombiner Power Correction Factor vs Containment Pressure.~~
- 4.3.4. ~~Determine the required Recombiner Power Setting by multiplying the Reference Power, 43 KW, times C_p .~~

(Re-number) Determine the required Recombiner Power Setting by using **Attachment 5, Recombiner Power vs Containment Pressure.**



NOTE

Hydrogen Recombiner Kilowatt Meter Indication lags the Potentiometer. When adjusting Recombiner Power, the potentiometer should be adjusted incrementally to allow the Kilowatt Meter Indication to keep pace with the potentiometer.

- 4.3.5. Turn the HYDROGEN RECOMBINER A(B) KILOWATT CONTROL Potentiometer clockwise until 5 KW is obtained on the HCS-WM10A/B, HYDROGEN RECOMBINER 1A(1B) KILOWATTS. Hold at this power level for 10 minutes.
- 4.3.6. Turn the HYDROGEN RECOMBINER A(B) KILOWATT CONTROL Potentiometer clockwise until 10 KW is obtained on the HCS-WM10A/B, HYDROGEN RECOMBINER 1A(1B) KILOWATTS. Hold at this power level for 10 minutes.

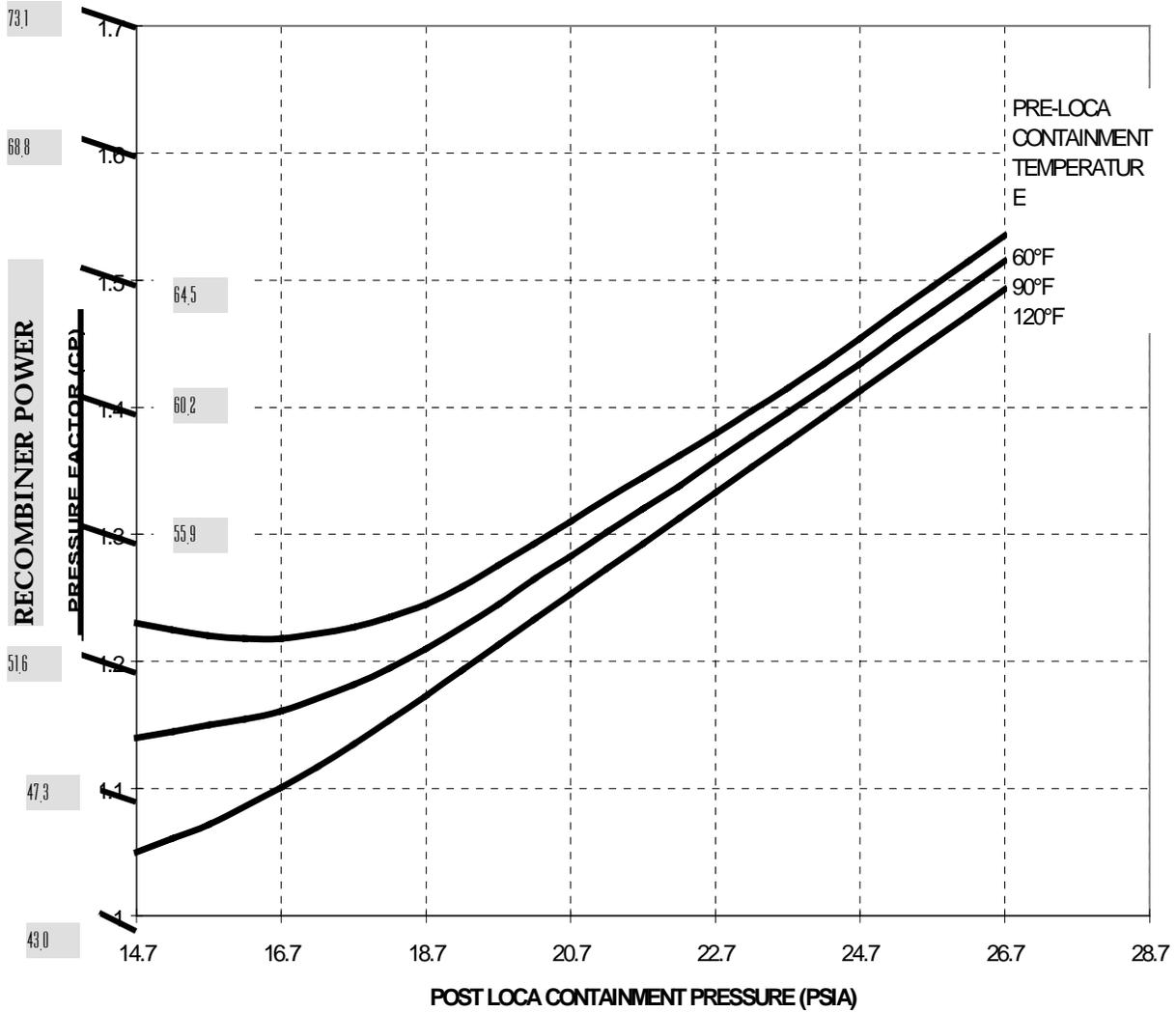
RBS JOB PERFORMANCE MEASURE

ATTACHMENT 5

PAGE 1 OF 1

RECOMBINER POWER CORRECTION FACTOR VS CONTAINMENT PRESSURE CURVE

RECOMBINER POWER VS CONTAINMENT PRESSURE



RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

YOU HAVE BEEN DESIGNATED TO IMPROVE SOP-0040, HYDROGEN MIXING, PURGE, RECOMBINERS, BY ELIMINATING THE OPPORTUNITY TO MAKE A MATHEMATICAL ERROR WHILE PERFORMING IN A MORE STRESSFUL ENVIRONMENT.

INITIATING CUES:

OBTAIN AN OFFICIAL WORK COPY OF SOP-0040, HYDROGEN MIXING, PURGE, RECOMBINERS.

VERIFY IT IS CURRENT INCLUDING ANY APPROVED OUTSTANDING CHANGES.

WRITE A COMMENT (CM) PAR TO CHANGE THE METHOD OF DETERMINING INITIAL HYDROGEN RECOMBINER KW SETTING FROM A CALCULATION TO A LOOK-UP BY DOING THE FOLLOWING:

- REPLACE THE STEPS IN SOP-0040 FOR DETERMINING INITIAL HYDROGEN RECOMBINER KW SETTING WITH ONE STEP THAT STATES "DETERMINE THE REQUIRED RECOMBINER POWER SETTING BY USING ATTACHMENT 5, RECOMBINER POWER VS CONTAINMENT PRESSURE" (OR WORDS TO THIS EFFECT).
- RENAME ATTACHMENT 5, FROM "RECOMBINER POWER CORRECTION FACTOR VS CONTAINMENT PRESSURE CURVE" TO "RECOMBINER POWER VS CONTAINMENT PRESSURE".
- RENAME THE VERTICAL AXIS FROM "PRESSURE FACTOR (CP)" TO "RECOMBINER POWER (KW)".
- REPLACE THE CP FACTORS ON THE VERTICAL AXIS WITH KW BY MULTIPLYING THE CP NUMBER BY 43KW, ROUND CALCULATIONS TO THE NEAREST TENTH OF A KW.

TERMINATION CRITERIA:

PAR FORM COMPLETE WITH ATTACHED MARKED UP PROCEDURE PAGES.

RBS JOB PERFORMANCE MEASURE

JPM NUMBER: JPM-601-01, REVISION 0

TASK DESCRIPTION: ADMINISTRATIVE TASK: ENTERING A HIGH RADIATION AREA FOR VALVE POSITION VERIFICATION.

K/A REFERENCE & RATING: 2.3.1 2.6/3.0

TASK REFERENCE:

TESTING METHOD: SIMULATE PERFORMANCE: ACTUAL PERFORMANCE:
CONTROL ROOM: SIMULATOR: IN-PLANT:

COMPLETION TIME: 15 MINUTES

MAX. TIME: N/A

JOB LEVEL: RO/SRO

TIME CRITICAL: No

**EIP CLASSIFICATION
REQUIRED:** No

PRA RISK DOMINATE: No

ALTERNATE PATH (FAULTED): No

SAFETY FUNCTION GROUP: N/A

PREPARED BY: DAVID LOONEY **DATE:** 9/3/00

OPS REVIEW: J.A. CLARK **DATE:** 9/3/00

APPROVED BY: M.K. CANTRELL **DATE:** 9/3/00

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: ADMINISTRATIVE TASK, ENTERING A HIGH RADIATION AREA FOR VALVE MANIPULATION.

REQUIRED POWER: N/A

IC NO.: N/A

NOTES: NONE

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

GET 2; RWP 00-1202-01, AUTHORIZED TO ENTER LARA, AAA, HCA

REQUIRED MATERIALS:

RWP 00-1202-01

REQUIRED PLANT CONDITION:

PLANT OPERATING OFF-GAS IN SERVICE

APPLICABLE OBJECTIVES:

SAFETY RELATED TASK:

N/A

(IF K/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

NONE

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

IF IN-PLANT OR IN THE CONTROL ROOM:

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

READ TO THE OPERATOR:

I WILL EXPLAIN THE INITIAL CONDITIONS, AND PROVIDE INITIATING CUES. I MAY PROVIDE CUES DURING THE PERFORMANCE OF THIS JPM. I WILL ASK FOLLOW-UP QUESTIONS AS PART OF THIS JPM. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JPM WILL BE SATISFIED. YOU SHOULD INFORM ME WHEN YOU HAVE COMPLETED THE TASK.

INITIAL CONDITIONS: FOLLOWING OFF-GAS DRYER CHILLER INSPECTION, VERIFYING VALVE LINE-UP PRIOR TO PLACING IN USE, PLANT AT 100% POWER WITH OFF-GAS IN SERVICE.

INITIATING CUE: YOU ARE REQUIRED TO VERIFY N64-VF099B, DRYER-CHILLER "B" GLYCOL INLET ISOL IS OPEN, THIS VALVE IS LOCATED ON DRYER SKID 'B'.

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
1. REVIEW HIGH RADIATION RWP 00-1202-01	RWP 00-1202-01	_____	
* 2. OBTAIN AN ERD AND LOG IN ON COMPUTER.	ERD LOG IN SUCCESSFULLY COMPLETE, DOSE SETTINGS 50 MR, AND 1500 MR/HR	_____	
* 3. REVIEW TASK WITH RADIATION PROTECTION.	DISCUSSED WITH RP.	_____	
4. BECOME AWARE OF RADIOLOGICAL CONDITIONS.	REVIEW SURVEY MAPS OR DISCUSS WITH RP.	_____	
5. OBSERVE ALL POSTINGS.		_____	
6. ENTER ROOM AND AS QUICKLY AS POSSIBLE LOCATE VALVE.	ALARA	_____	CUE: SIMULATE THIS.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
___ 7. VERIFY VALVE OPEN.	MOVES VALVE IN CLOSE DIRECTION SLIGHTLY THEN RE-OPENS.	___	CUE: SIMULATE THIS.
* ___ 8. EXIT CAR	COUNT OUT THROUGH PCMB, SUCCESSFULLY EXIT CAR.	___	
___ 9. SIGN OFF RWP 00-1202-01.	COMPUTER REPORTS DOSE, AND MAX DOSE RATE.	___	

TERMINATION CRITERIA: N64-VF099B, DRYER-CHILLER "B" GLYCOL INLET ISOL VERIFIED OPEN.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____ KCN: _____

EVALUATOR: _____

DATE: _____ [LICENSE (CIRCLE ONE): _____] RO / SRO No. of Attempts: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

FOLLOWING OFF-GAS DRYER CHILLER INSPECTION, VERIFYING VALVE LINE-UP PRIOR TO PLACING IN USE, PLANT AT 100% POWER WITH OFF-GAS IN SERVICE.

INITIATING CUES:

YOU ARE REQUIRED TO VERIFY N64-VF099B, DRYER-CHILLER "B" GLYCOL INLET ISOL IS OPEN, THIS VALVE IS LOCATED ON DRYER SKID "B".

TERMINATION CRITERIA:

N64-VF099B, DRYER-CHILLER "B" GLYCOL INLET ISOL VERIFIED OPEN.

RBS JOB PERFORMANCE MEASURE

JPM NUMBER: JPM-976-01 REV. 0

TASK DESCRIPTION: CLASSIFY AN EVENT.

K/A REFERENCE & RATING: 2.4.41 4.1

TASK REFERENCE: 301001005003
301011005003

TESTING METHOD: SIMULATE PERFORMANCE: ACTUAL PERFORMANCE:
CONTROL ROOM: SIMULATOR: IN-PLANT:

COMPLETION TIME: 10 MINUTES

MAX TIME: N/A

JOB LEVEL: SRO

TIME CRITICAL: NO

**EIP CLASSIFICATION
REQUIRED:** YES

PRA RISK DOMINATE: NO

ALTERNATE PATH (FAULTED): NO

SAFETY FUNCTION AREA GENERIC KNOWLEDGES/ABILITIES

PREPARED BY: M.K. CANTRELL
10/3/00

DATE:

OPS REVIEW: _____

DATE: _____

APPROVED BY: _____

DATE: _____

RBS JOB PERFORMANCE MEASURE

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: CLASSIFY AN EVENT.

REQUIRED POWER: N/A

IC NO.: ANY

NOTES:

THE PERFORMER HAS 15 MINUTES, FROM THE CLASSIFICATION OF THE EVENT, TO COMPLETE THE NOTIFICATION FORM FOR THE COMMUNICATOR TO TRANSMIT.

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

EIP-2-001, CLASSIFICATION OF EMERGENCIES
ARP P601-19A-H01
ARP P601-19A-H02
ARP P601-19A-H01
ARP P601-19A-H01

REQUIRED MATERIALS:

EIP-2-001, CLASSIFICATION OF EMERGENCIES
NOTIFICATION MESSAGE FORM (SHORT FORM)

REQUIRED PLANT CONDITION:

N/A

APPLICABLE OBJECTIVES:

ETT-032	OBJ, 4
ETT-032R	OBJ, 4
ETT-023	OBJ, 8
ETT-023R	OBJ, 8

SAFETY RELATED TASK:

(If N/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

N/A

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED. IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

If In-Plant or In the Control Room:

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

Read to the Operator:

I will explain the initial conditions, and provide initiating cues. I may provide cues during the performance of this JPM. I may ask follow-up questions as part of this JPM. When you complete the task successfully, the objective for this JPM will be satisfied. You should inform me when you have completed the task.

INITIAL CONDITIONS:

The plant was operating at 100% of rated power when a Main Turbine Trip and Reactor Scram occurred. The following conditions exist:

The reactor is shutdown (all controls are fully inserted)

Main Steam Tunnel ambient temperature is 220 degrees Fahrenheit

Main Steam Tunnel ventilation differential temperature is 80 degrees Fahrenheit

Wind direction is 105 degrees

Wind speed is 12 miles per hour

No precipitation

Main Steam Line flows as indicated on P680 are as follows:

- Main Steam Line "A" - 0 MLBM/HR
- Main Steam Line "B" - .5 MLBM/HR
- Main Steam Line "C" - 0 MLBM/HR
- Main Steam Line "D" - 0 MLBM/HR

INITIATING CUE:

As the Shift Superintendent and Emergency Director, classify the event and complete the appropriate notification short form.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
1. REVIEW EMERGENCY ACTION LEVELS FOR EVENT CLASSIFICATION.	EIP-2-001 REVIEWED	_____	
* 2. CLASSIFY EVENT AS SITE AREA EMERGENCY DUE TO A STEAM LINE BREAK (OUTSIDE CONTAINMENT WITHOUT ISOLATION).	EVENT CLASSIFIED AS SAE (PER EAL 3.1)	_____	NOTE TO EVALUATOR: TO FIGURE THE CLASSIFICATION EIP-2-001 WILL HAVE TO BE UTILIZED.
* 3. COMPLETE SHORT FORM FOR NOTIFICATION OF SITE AREA EMERGENCY.	SHORT FORM NOTIFICATION COMPLETED AS FOLLOWS: DECLARED AT: TIME STEP 2 ABOVE COMPLETED ON: <i>Current date</i> FOR: STEAM LINE BREAK (OUTSIDE CONTAINMENT WITHOUT ISOLATION) WIND FROM: 105° AT: 12 MPH RELEASE: NO AUTHORIZED BY: <i>Signature</i> TITLE: EMERGENCY DIRECTOR	_____	

TERMINATING CUE: CLASSIFICATION DETERMINED AND SHORT FORM NOTIFICATION COMPLETED.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____ KCN: _____

EVALUATOR: _____

DATE: _____ LICENSE (CIRCLE ONE): RO / SRO NO. OF ATTEMPTS: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITION S:

THE PLANT WAS OPERATING AT 100% OF RATED POWER WHEN A MAIN TURBINE TRIP AND REACTOR SCRAM OCCURRED. THE FOLLOWING CONDITIONS EXIST:

THE REACTOR IS SHUTDOWN (ALL CONTROLS ARE FULLY INSERTED)

MAIN STEAM TUNNEL AMBIENT TEMPERATURE IS 220 DEGREES FARENHEIT

MAIN STEAM TUNNEL VENTILATION DIFFERENTIAL TEMPERATURE IS 80 DEGREES FARENHEIT

WIND DIRECTION IS 105 DEGREES

WIND SPEED IS 12 MILES PER HOUR

NO PRECIPITATION

MAIN STEAM LINE FLOWS AS INDICATED ON P680 ARE AS FOLLOWS:

- MAIN STEAM LINE "A" - 0 MLBM/HR
- MAIN STEAM LINE "B" - .5 MLBM/HR
- MAIN STEAM LINE "C" - 0 MLBM/HR
- MAIN STEAM LINE "D" - 0 MLBM/HR

INITIATING CUES:

AS THE SHIFT SUPERINTENDENT AND EMERGENCY DIRECTOR, CLASSIFY THE EVENT AND COMPLETE THE APPROPRIATE NOTIFICATION SHORT FORM.

TERMINATING CUES:

CLASSIFICATION DETERMINED AND SHORT FORM NOTIFICATION COMPLETED.

NRC EXAM RO
Administrative Part A.4

Knowledge and Ability:	2.4.39
Importance Rating:	3.3
Subject Description:	Emergency Implementing Procedures
Method of Evaluation	<u>Two Administrative Questions</u> demonstrating knowledge of EIPs.

Question 1.

A Notification of Unusual Event (NOUE) has been declared at River Bend Station due to a stuck open Safety Relief Valve. Who assumes the responsibilities of the Emergency Director during this event?

Answer: Operations Shift Superintendent (OSS)

NRC EXAM RO
Administrative Part A.4

Knowledge and Ability:	2.4.39
Importance Rating:	3.3
Subject Description:	Emergency Implementing Procedures
Method of Evaluation	<u>Two Administrative Questions</u> demonstrating knowledge of EIPs.

Question 2.

An emergency condition has occurred. What are the emergency guidelines for Total Effective Dose Equivalent (TEDE) for immediate actions taken to prevent major damage to equipment or to prevent the release of radioactive material?

Answer: 10 Rem

NRC EXAM RO
Administrative Part A.4
(Operator Copy)

Question 1.

A Notification of Unusual Event (NOUE) has been declared at River Bend Station due to a stuck open Safety Relief Valve. Who assumes the responsibilities of the Emergency Director during this event?

NRC EXAM RO
Administrative Part A.4

(Operator Copy)

Question 2.

An emergency condition has occurred. What are the emergency guidelines for Total Effective Dose Equivalent (TEDE) for immediate actions taken to prevent major damage to equipment or to prevent the release of radioactive material?

RBS JOB PERFORMANCE MEASURE

JPM NUMBER: JPM-052-08, REVISION 0

TASK DESCRIPTION: SWAP CONTROL ROD DRIVE DISCHARGE FILTERS.

K/A REFERENCE & RATING: 3.9/3.4

TASK REFERENCE:

TESTING METHOD: SIMULATE PERFORMANCE: ACTUAL PERFORMANCE: _____
CONTROL ROOM: _____ SIMULATOR: _____ IN-PLANT:

COMPLETION TIME: MINUTES

MAX. TIME: N/A

JOB LEVEL: RO/SRO

TIME CRITICAL: No

**EIP CLASSIFICATION
REQUIRED:** No

PRA RISK DOMINATE: No

ALTERNATE PATH (FAULTED): No

SAFETY FUNCTION GROUP: 1

PREPARED BY: DAVID LOONEY **DATE:** 9/3/00

OPS REVIEW: J.A. CLARK **DATE:** 9/3/00

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: SWAP CONTROL ROD DRIVE DISCHARGE FILTERS.

REQUIRED POWER: ANY

IC NO.: N/A

NOTES: NONE

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT: SOP-0002

REQUIRED MATERIALS: SOP-0002

REQUIRED PLANT CONDITION: ANY

APPLICABLE OBJECTIVES:

SAFETY RELATED TASK: N/A
(If K/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

IF IN-PLANT OR IN THE CONTROL ROOM.

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

READ TO THE OPERATOR:

I WILL EXPLAIN THE INITIAL CONDITIONS, AND PROVIDE INITIATING CUES. I MAY PROVIDE CUES DURING THE PERFORMANCE OF THIS JPM. I WILL ASK FOLLOW-UP QUESTIONS AS PART OF THIS JPM. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JPM WILL BE SATISFIED. YOU SHOULD INFORM ME WHEN YOU HAVE COMPLETED THE TASK.

INITIAL CONDITIONS: Control Rod Hydraulic System is operating, in a normal lineup.

INITIATING CUE: CRS has directed you as the Reactor Building Operator to swap CRD Discharge Filters from "A" in service to "B" in service. Drain the "A" discharge filter.

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
1. Verify the C11-PDIS-N002, Filter Differential Pressure Indicating Switch is in operation.	C11-PDIS-N002, Filter Differential Pressure Indicating Switch is in operating (valved in and indicating).	_____	
* 2. Open C11-VF020B, CRD PMP DISCH FILTER D003B INLET ISOL VALVE.	VALVE FULLY COUNTERCLOCKWISE.	_____	
* 3. Open C11-VF022B, CRD PMP DISCH FILTER D003B VENT VLV AND DER-V10, C11-FLT0003B VENT VALVE. WHEN AIR-FREE WATER IS VENTED FROM FILTER, THEN CLOSE C11-VF022B, VENT VALVE AND DER-V10, C11-FLT0003B VENT VALVE.	SOLID STREAM OF WATER (WATER W/O AIR)	_____	<p>ONCE CANDIDATE INDICATES WATER FLOWING;</p> <p>CUE: WATER WITHOUT AIR IS FLOWING.</p>

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 4. SLOWLY OPEN C11-VF021B, CRD PMP DISCH FILTER D003B OUTLET ISOL VLV.	VALVE FULLY COUNTERCLOCKWISE.	_____	
* 5. CLOSE C11-VF021A, CRD PMP DISCH FILTER D003A OUTLET ISOL VALVE.	VALVE FULLY CLOCKWISE.	_____	NOTE TO EVALUATOR: STEPS 2, 3, & 4 MUST BE PERFORMED PRIOR TO THIS STEP. AND STEP 5 MUST BE PERFORMED BEFORE STEP 7 FOR SATISFACTORY RESULTS.
6. VERIFY PROPER FILTER OPERATION BY OBSERVING C11-PDIS-N002 IS IN NORMAL BAND.	C11-PDIS-N002 IS IN NORMAL BAND.	_____	CUE: C11-PDIS-N002 INDICATES 4 PSID
* 7. CLOSE C11-VF020A, CRD PMP DISCH FILTER D003A INLET ISOL VALVE.	VALVE FULLY CLOCKWISE.	_____	NOTE TO EVALUATOR: STEPS 2, 3, & 4 MUST BE PERFORMED PRIOR TO THIS STEP. AND STEP 5 MUST BE PERFORMED BEFORE STEP 7 FOR SATISFACTORY RESULTS.
* 8. OPEN C11-F022A, CRD PMP DISCH FILTER D003A VENT VLV.	VALVE OPEN (COUNTERCLOCKWISE).	_____	NOTE TO EVALUATOR: THIS STEP CAN BE PERFORMED SATISFACTORY WITHOUT FULLY OPENING THE VENT.
* 9. OPEN C11-VF023A, CRD PMP DISCH FILTER D003A DRAIN VLV.	VALVE OPEN (COUNTERCLOCKWISE).	_____	NOTE TO EVALUATOR: THIS STEP CAN BE PERFORMED SATISFACTORY WITHOUT FULLY OPENING THE DRAIN.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 10. OPEN DER-V8, C11-FLTD003A VENT VALVE.	VALVE OPEN (COUNTERCLOCKWISE).	_____	NOTE TO EVALUATOR: THIS STEP CAN BE PERFORMED SATISFACTORY WITHOUT FULLY OPENING THE VENT.
* 11. OPEN DER-V9, C11-FLTD003A DRAIN VALVE.	VALVE OPEN (COUNTERCLOCKWISE).	_____	NOTE TO EVALUATOR: THIS STEP CAN BE PERFORMED SATISFACTORY WITHOUT FULLY OPENING THE DRAIN. WHEN THIS STEP IS COMPLETE: CUE: WATER FLOW HAS STOPPED.
* 12. CLOSE C11-F022A, CRD PMP DISCH FILTER D003A VENT VLV	VALVE FULLY CLOCKWISE.	_____	
* 13. CLOSE C11-VF023A(B), CRD PMP DISCH FILTER D003A(B) DRAIN VLV	VALVE FULLY CLOCKWISE.	_____	
* 14. CLOSE DER-V8(V10), C11-FLTD003A(B) VENT VALVE	VALVE FULLY CLOCKWISE.	_____	
* 15. CLOSE DER-V9(V11), C11-FLTD003A(B) DRAIN VALVE	VALVE FULLY CLOCKWISE.	_____	
16. NOTIFY CONTROL ROOM THAT CHANGEOVER IS COMPLETE.	CONTROL ROOM NOTIFIED.	_____	CUE: CONTROL ROOM ACKNOWLEDGES SWAP COMPLETE AND INDICATES ALL FLOWS AND PRESSURES ARE SATISFACTORY.

TERMINATION CRITERIA: CRD DISCHARGE FILTER "B" INSERVICE, "A" DISCHARGE FILTER DRAINED.

RBS JOB PERFORMANCE MEASURE

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____

EVALUATOR: _____ KCN: _____

DATE: _____ [LICENSE (CIRCLE ONE): _____] RO / SRO No. of Attempts: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

CONTROL ROD HYDROLIC SYSTEM IS OPERATING, IN A NORMAL LINEUP.

INITIATING CUES:

CRS HAS DIRECTED YOU AS THE REACTOR BUILDING OPERATOR TO SWAP CRD DISCHARGE FILTERS FROM "A" IN SERVICE TO "B" IN SERVICE, DRAIN THE "A" DISCHARGE FILTER.

TERMINATION CRITERIA:

CRD DISCHARGE FILTER "B" IN SERVICE, "A" DISCHARGE FILTER DRAINED.

RBS JOB PERFORMANCE MEASURE

JPM NUMBER: JPM-053-06, REVISION 0

TASK DESCRIPTION: TRANSFER REACTOR RECIRC PUMPS TO FAST SPEED WITH A FAILURE OF "B" TO TRANSFER

K/A REFERENCE & RATING: 202001 R4.01 3.7/3.7

TASK REFERENCE:

TESTING METHOD: SIMULATE PERFORMANCE: ACTUAL PERFORMANCE: _____
CONTROL ROOM: _____ SIMULATOR: IN-PLANT: _____

COMPLETION TIME: 12 MINUTES

MAX. TIME: N/A

JOB LEVEL: RO/SRO

TIME CRITICAL: No

**EIP CLASSIFICATION
REQUIRED:** No

PRA RISK DOMINATE: No

ALTERNATE PATH (FAULTED): Yes

SAFETY FUNCTION GROUP: 1

PREPARED BY: DAVID LOONEY **DATE:** 9/3/00

OPS REVIEW: J.A. CLARK **DATE:** 9/3/00

APPROVED BY: M.K. CANTRELL **DATE:** 9/3/00

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: TRANSFER REACTOR RECIRC PUMPS TO FAST SPEED WITH A FAILURE OF "B" TO TRANSFER

REQUIRED POWER: APPROXIMATELY 44%

IC NO.: ANY

NOTES: SETUP:

OVERRIDE ANNUNCIATORS FOR POWER INTERLOCK BYPASSED
FW FLOW INTERLOCK BYPASSED SUCH THAT WHEN ACTIVATING
THE REMOTE FUNCTION TO PLACE THE SWITCHES IN BYPASS (ONE AT A
TIME) THE OTHER ANNUNCIATOR IS OVERRIDDEN OFF. THIS WILL
SIMULATE TAKING THE SWITCHES TO BYPASS ONE AT A TIME.

FOR B33-3B 680-4C RECIRC PUMP MOT BKR 3B SW TRIP

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

GOP-0001, PLANT STARTUP; SOP-0003, REACTOR RECIRCULATION SYSTEM; GOP-0004, SINGLE LOOP OPERATION; AOP-0024, THERMAL HYDRAULIC STABILITY CONTROLS

REQUIRED MATERIALS:

SOP-0003, REACTOR RECIRCULATION SYSTEM; GOP-0004, SINGLE LOOP OPERATION; AOP-0024, THERMAL HYDRAULIC STABILITY CONTROLS

REQUIRED PLANT CONDITION:

ANY

APPLICABLE OBJECTIVES:

SAFETY RELATED TASK: N/A
(If K/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

IF IN-PLANT OR IN THE CONTROL ROOM:

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

READ TO THE OPERATOR:

I WILL EXPLAIN THE INITIAL CONDITIONS, AND PROVIDE INITIATING CUES. I MAY PROVIDE CUES DURING THE PERFORMANCE OF THIS JPM. I WILL ASK FOLLOW-UP QUESTIONS AS PART OF THIS JPM. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JPM WILL BE SATISFIED. YOU SHOULD INFORM ME WHEN YOU HAVE COMPLETED THE TASK.

INITIAL CONDITIONS: THE PLANT IS IN A STARTUP, AT APPROXIMATELY 38% REACTOR POWER.

INITIATING CUE: THE CRO DIRECTS YOU TO TRANSFER REACTOR RECIRC PUMPS TO FAST SPEED.

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
1. VERIFY FEEDWATER FLOW IS ABOVE 3.1×10^6 GPM/HR AS READ ON ERS POINT C33EA018.	FEEDWATER FLOW IS ABOVE 3.1×10^6 GPM/HR	_____	CUE: FEED FLOW, AS INDICATED ON ERS POINT C33EA018 IS 3.92×10^6
2. VERIFY BOTTOM HEAD COOLANT AND REACTOR PRESSURE VESSEL COOLANT DIFFERENTIAL TEMPERATURE LESS THAN OR EQUAL TO 100°F.	BOTTOM HEAD COOLANT AND REACTOR PRESSURE VESSEL COOLANT DIFFERENTIAL TEMPERATURE LESS THAN OR EQUAL TO 100°F.	_____	
3. VERIFY RECIRCULATION LOOP AND REACTOR PRESSURE VESSEL COOLANT DIFFERENTIAL TEMPERATURE LESS THAN 50°F.	RECIRCULATION LOOP AND REACTOR PRESSURE VESSEL COOLANT DIFFERENTIAL TEMPERATURE LESS THAN 50°F.	_____	
4. VERIFY STEAM LINE TO PUMP SUCTION DIFFERENTIAL TEMPERATURE GREATER THAN 8.6°F.	STEAM LINE TO PUMP SUCTION DIFFERENTIAL TEMPERATURE GREATER THAN 8.6°F.	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
5. VERIFY RPV LEVEL GREATER THAN LEVEL 3 (+9.7").	RPV LEVEL GREATER THAN LEVEL 3 (+9.7").	_____	
6. HAVE THE B33-S126A, POWER INTERLOCK BYPASS SWITCHES PLACED IN BYPASS.	CALLS THE REACTOR BUILDING OPERATOR (SIMULATOR INSTRUCTOR) TO PLACE THESE SWITCHES IN BYPASS.	_____	NOTE TO EXAMINER: THE CANDIDATE MAY ELECT TO START THE "B" REACTOR RECIRC PUMP 1 ST . IF THIS IS INDICATED BY THE CANDIDATE THE EXAMINER SHOULD INTERVENE AND DIRECT THE CANDIDATE TO START THE "A" PUMP 1 ST .
7. HAVE THE B33-S127A, TOTAL FEEDWATER FLOW INTERLOCK BYPASS SWITCHES PLACED IN BYPASS	CALLS THE REACTOR BUILDING OPERATOR (SIMULATOR INSTRUCTOR) TO PLACE THESE SWITCHES IN BYPASS.	_____	
* 8. VERIFY B33-K603A, RECIRC LOOP A FLOW CONTROL M/A STATION IS IN MAN, AND REDUCE B33-HYVF060A, FLOW CONTROL VALVE SETPOINT TO THE MINIMUM POSITION FOR THE PUMP BEING SHIFTED TO FAST SPEED AS INDICATED ON ERIS POINT B33EA062.	B33-HYVF060A, FLOW CONTROL VALVE INDICATES MINIMUM (~0%)	_____	WHEN B33-HYVF060A, FLOW CONTROL VALVE INDICATES MINIMUM (0%) THEN CUE:ERIS POINT B33EA062 INDICATES MINIMUM.
9. ALLOW FEEDWATER FLOW/RECIRCULATION FLOW TO STABILIZE FOR AT LEAST ONE MINUTE TO ENSURE THAT THE FEEDWATER FLOW INTERLOCK REMAINS CLEAR.	60 SECONDS PASS.	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
10. VERIFY FEEDWATER FLOW IS ABOVE 3.1×10^6 TBM/HR AS INDICATED ON ERIS POINT C33EA018.	TOTAL FEED FLOW IS $>3.1 \times 10^6$.	_____	CUE: FEED FLOW, AS INDICATED ON ERIS POINT C33EA018 IS 3.22×10^6.
11. VERIFY B33-C001A PUMP A MOT BRKR 4A IS CLOSED.	B33-C001A PUMP A MOT BRKR 4A IS CLOSED.	_____	
* 12. START B33-C001A RECIRC PUMP A, CLOSING MOTOR BREAKER 5A.	MOTOR BREAKER 5A CLOSED.	_____	NOTE TO EVALUATOR: IT WILL TAKE A FEW SECONDS FOR THIS BREAKER TO CLOSE.
13. OBSERVE B33-S001A LFMG A GEN BRKR 2A AND B33-S001A LFMG A MOT BRKR 1A OPEN.	B33-S001A LFMG A GEN BRKR 2A AND B33-S001A LFMG A MOT BRKR 1A OPEN.	_____	
14. OBSERVE B33-C001A, RECIRC PUMP A SPEED COASTS DOWN TO APPROXIMATELY 360 RPM.	B33-C001A, RECIRC PUMP A SPEED COASTS DOWN TO APPROXIMATELY 360 RPM.	_____	
15. OBSERVE B33-C001A RECIRC PUMP A MOTOR BREAKER 5A CLOSSES.	B33-C001A RECIRC PUMP A MOTOR BREAKER 5A CLOSSES.	_____	
16. OBSERVE B33-C001A PUMP A MOT BRKR 3A CLOSSES.	B33-C001A PUMP A MOT BRKR 3A CLOSSES.	_____	
17. OBSERVE B33-C001A, RECIRC PUMP A ACCELERATES TO AND STABILIZES AT 1800 RPM.	B33-C001A, RECIRC PUMP A ACCELERATES TO AND STABILIZES AT 1800 RPM.	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
18. RETURN B33-S126A. POWER INTERLOCK BYPASS TO NORMAL.	CALLS THE REACTOR BUILDING OPERATOR (SIMULATOR INSTRUCTOR) TO PLACE THESE SWITCHES IN NORMAL.	_____	
19. RETURN B33-S127A. TOTAL FEEDWATER FLOW INTERLOCK BYPASS TO NORMAL.	CALLS THE REACTOR BUILDING OPERATOR (SIMULATOR INSTRUCTOR) TO PLACE THESE SWITCHES IN NORMAL.	_____	
20. VERIFY FEEDWATER FLOW IS ABOVE 3.1×10^6 LBM/HR AS READ ON ERIS POINT C33EA018.	FEEDWATER FLOW IS ABOVE 3.1×10^6 LBM/HR.	_____	CUE: FEED FLOW, AS INDICATED ON ERIS POINT C33EA018 IS 3.92×10^6
21. VERIFY BOTTOM HEAD COOLANT AND REACTOR PRESSURE VESSEL COOLANT DIFFERENTIAL TEMPERATURE LESS THAN OR EQUAL TO 100°F.	BOTTOM HEAD COOLANT AND REACTOR PRESSURE VESSEL COOLANT DIFFERENTIAL TEMPERATURE LESS THAN OR EQUAL TO 100°F.	_____	
22. VERIFY RECIRCULATION LOOP AND REACTOR PRESSURE VESSEL COOLANT DIFFERENTIAL TEMPERATURE LESS THAN 50°F.	RECIRCULATION LOOP AND REACTOR PRESSURE VESSEL COOLANT DIFFERENTIAL TEMPERATURE LESS THAN 50°F.	_____	
23. VERIFY STEAM LINE TO PUMP SUCTION DIFFERENTIAL TEMPERATURE GREATER THAN 8.6°F.	STEAM LINE TO PUMP SUCTION DIFFERENTIAL TEMPERATURE GREATER THAN 8.6°F.	_____	
24. VERIFY RPV LEVEL GREATER THAN LEVEL 3 (+9.7").	RPV LEVEL GREATER THAN LEVEL 3 (+9.7").	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
25. HAVE THE B33-S126B, POWER INTERLOCK BYPASS SWITCHES PLACED IN BYPASS.	CALLS THE REACTOR BUILDING OPERATOR (SIMULATOR INSTRUCTOR) TO PLACE THESE SWITCHES IN BYPASS.	_____	
26. HAVE THE B33-S127B, TOTAL FEEDWATER FLOW INTERLOCK BYPASS SWITCHES PLACED IN BYPASS	CALLS THE REACTOR BUILDING OPERATOR (SIMULATOR INSTRUCTOR) TO PLACE THESE SWITCHES IN BYPASS.	_____	
* 27. VERIFY B33-K603B, RECIRC LOOP B FLOW CONTROL M/A STATION IS IN MAN. AND REDUCE B33-HYVF060B, FLOW CONTROL VALVE SETPOINT TO THE MINIMUM POSITION FOR THE PUMP BEING SHIFTED TO FAST SPEED AS INDICATED ON ERIS POINT B33EA063.	B33-HYVF060B, FLOW CONTROL VALVE INDICATES MINIMUM (~0%)	_____	WHEN B33-HYVF060A, FLOW CONTROL VALVE INDICATES MINIMUM (0%) <u>THEN</u> CUE:ERIS POINT B33EA063 INDICATES MINIMUM.
28. ALLOW FEEDWATER FLOW/RECIRCULATION FLOW TO STABILIZE FOR AT LEAST ONE MINUTE TO ENSURE THAT THE FEEDWATER FLOW INTERLOCK REMAINS CLEAR.	60 SECONDS PASS.	_____	
29. VERIFY FEEDWATER FLOW IS ABOVE 3.1×10^6 LBM/HR AS INDICATED ON ERIS POINT C33EA018.	TOTAL FEED FLOW IS $>3.1 \times 10^6$.	_____	CUE: FEED FLOW, AS INDICATED ON ERIS POINT C33EA018 IS 3.22×10^6.
30. VERIFY B33-C001B PUMP B MOT BRKR 4B IS CLOSED.	B33-C001B PUMP B MOT BRKR 4B IS CLOSED.	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 31. START B33-0001B RECIRC PUMP B, CLOSING MOTOR BREAKER 5B.	RECOGNIZE MOTOR BREAKER 5B FAILED TO CLOSE.	_____	NOTE TO EVALUATOR: IT WILL TAKE A FEW SECONDS FOR THE INCOMPLETE SEQUENCE RELAY TO TIME OUT AND ALARM.
* 32. ENTER AOP-0024, THERMAL HYDRAULIC STABILITY CONTROLS.	AOP-0024, THERMAL HYDRAULIC STABILITY CONTROLS OPENED.	_____	
33. VERIFY NOT IN THE EXCLUSION REGION OF THE POWER TO FLOW MAP.	CANDIDATE CHECKS POWER TO FLOW MAP AOP-0024 ATTACHMENT 2 FOR SINGLE LOOP OPERATION.	_____	
* 34. ENTER GOP-0004, SINGLE LOOP OPERATION.	CRS INFORMED OF NEED TO ENTER GOP-0004, OR OBTAINS GOP-0004 FOR USE.	_____	
35. VERIFY B33-HYV-F060A (B), FLOW CONT VLV FOR BOTH LOOPS IN MANUAL.	BOTH LOOPS IN MANUAL.	_____	
* 36. CLOSE B33-F067B, RECIRC PUMP B DISCH VALVE.	B33-F067B, RECIRC PUMP B DISCH VALVE GREEN LIGHT ONLY.	_____	

TERMINATION CRITERIA: REACTOR RECIRC PUMP A IN FAST SPEED.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____ KCN: _____

EVALUATOR: _____

DATE: _____ [LICENSE (CIRCLE ONE): RO / SRO No. of Attempts: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

THE PLANT IS IN A STARTUP, AT APPROXIMATELY 38% REACTOR POWER.

INITIATING CUES:

THE CRS DIRECTS YOU TO TRANSFER REACTOR RECIRC PUMPS TO FAST SPEED.

TERMINATION CRITERIA:

REACTOR RECIRC PUMPS IN FAST SPEED.

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: TURBINE VALVE TESTING FOR TURBINE CONTROL VALVE #1 WITH CONTROL VALVE FAILURE

REQUIRED POWER: 70% REACTOR POWER

IC NO.: IC-80

NOTES:

1. LOWER POWER TO 70% USING RECIRC FLOW AND CONTROL RODS (ENSURE OPERATION OUTSIDE THE MONITORED REGION ON THE POWER TO FLOW MAP).
2. ENSURE THE PROCESS COMPUTER IS OPERATIONAL.
3. VERIFY IFR TGS001, TURBINE HI VIBRATION TRIP BYPASS IS IN "BYPASS".
4. IOR-ANN XAL1870 54R C 8 ON
"TURBINE TRIPS MANUALLY BYPASSED" ANNUNCIATOR.
5. SET TRIG 20 TCVCV1(1).LT. 01
6. IOR-SW TMB-CV1T TEST T20
IOR-LO TMB-CV1T-W OFF T20

CONSOLE OPERATOR INSTRUCTIONS FOR RESTORATION:

- DIRECT CANDIDATE TO DEPRESS CV-1 TEST PUSHBUTTON.

- WHEN THE TEST PUSHBUTTON IS DEPRESSED
REMOVE IOR-LO TMB-CV1T-W OFF T20
REMOVE IOR-SW TMB-CV1T TEST T20
- DIRECT CANDIDATE TO RELEASE CV-1 TEST PUSHBUTTON TO RE-OPEN CV-1 TO PRETEST POSITIONS.
- DIRECT CANDIDATE TO CONTINUE WITH QSP-0102.

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT: OSP-0102, TURBINE VALVE TESTING

REQUIRED MATERIALS: OSP-0102, TURBINE VALVE TESTING

REQUIRED PLANT CONDITION: 70% REACTOR POWER

APPLICABLE OBJECTIVES: STM-110, OBJ. 2

SAFETY RELATED TASK: (IF K/A LESS THAN 3.0)

CONTROL MANIPULATIONS: N/A

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AP PROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

IF IN-PLANT OR IN THE CONTROL ROOM:

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

READ TO THE OPERATOR:

I WILL EXPLAIN THE INITIAL CONDITIONS, AND PROVIDE INITIATING CUES. I MAY PROVIDE CUES DURING THE PERFORMANCE OF THIS JPM. I WILL ASK FOLLOW-UP QUESTIONS AS PART OF THIS JPM. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JPM WILL BE SATISFIED. YOU SHOULD INFORM ME WHEN YOU HAVE COMPLETED THE TASK.

INITIAL CONDITIONS: Reactor power at approximately 70%.

INITIATING CUE: The CBS directs you to perform Turbine Valve Testing for Turbine Control Valve #1 in accordance with DSP-0102, SECTION 7.5 (HIGH PRESSURE TURBINE CONTROL VALVE (CV) TESTING). THE PROCEDURE IS COMPLETE UP THROUGH STEP 7.4.4. THE EVALUATOR WILL ACT AS A SECOND QUALIFIED INDIVIDUAL TO MONITOR NON-TESTED TCVS.

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
1. VERIFY REACTOR POWER IS LESS THAN OR EQUAL TO THE POWER LEVEL AS DETERMINED BY THE SYSTEM ENGINEER.	Reactor Power verified to be less than 75%.	_____	CUE: AS SYSTEM ENGINEER, REPORT TO THE OPERATOR THAT REACTOR POWER MUST BE LESS THAN 75% IN ORDER TO PERFORM THIS TEST.
2. VERIFY REACTOR STEAM DOME PRESSURE IS LESS THAN 1020 PSIG.	STEAM DOME PRESSURE VERIFIED TO BE LESS THAN 1020 PSIG AS INDICATED BY: <ul style="list-style-type: none"> ● 1H13*P680, C33-R609, TURB 1ST STG 6 BX PRESS RED PEN OR ● ERIS COMPUTER POINTS B21EA008 THROUGH B21EA013. 	_____	PERFORMANCE OF THIS PROCEDURE AT STEAM DOME PRESSURES GREATER THAN 1020 PSIG COULD RESULT IN PRESSURE EXCURSIONS AND POSSIBLY A REACTOR SCRAM DUE TO HIGH PRESSURE.
3. VERIFY INITIAL VALVE POSITION CONTROL VALVES #1, 2, AND 3 IS LESS THAN 35 PERCENT AND CONTROL VALVE #4 IS CLOSED.	CONTROL VALVE POSITION INDICATION FOR TCVS 1-3 VERIFIED TO BE LESS THAN 35%. TCV #4 POSITION VERIFIED CLOSED AT 1H13*P680.	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
<p>4. In H13-P821 Bay 4, I&C check that Control Valve Disc Dump Test Switches are OPEN by checking NO continuity at the terminals below:</p> <p>CV1 1(B2-D)404 TERM 1,2 CV2 1(B2-D)404 TERM 4,5 CV3 1(B2-D)404 TERM 7,8</p>	<p>Verify position of the Control Valve Disc Dump Test Switches by contacting I&C to verify no continuity at the terminals indicated in Step 7.5.2 of OSP-102.</p>	<p>_____</p>	<p>CUE: REPORT AS THE I&C TECHNICIAN, THE CONTROL VALVE DISC DUMP TEST SWITCHES FOR TCVS 1-3 HAVE BEEN VERIFIED OPEN PER STEP 7.5.2 OF OSP-0102 AND YOU WILL RETURN TO INITIAL THOSE STEPS OF THE OSP.</p> <p>CUE: INFORM THE OPERATOR THAT THE TURBINE VIBRATION TRIP IS IN DISABLED AT H13-P822, TURBINE SUPERVISORY INSTRUMENTS PANEL.</p>
<p>5. At H13-P822 Turbine Supervisory Instruments Panel, verify the turbine vibration trip is in disabled.</p>	<p>Candidate should indicate where H13-P822 is located in relation to H13*P680 to verify the turbine vibration trip is disabled.</p>	<p>_____</p>	
<p>6. Observe the following valves pretest positions:</p> <p>A. CV-1 using CONTROL VLV-1 VLV POS B. CV-2 using CONTROL VLV-2 VLV POS C. CV-3 using CONTROL VLV-3 VLV POS D. CV-4 using CONTROL VLV-4 VLV POS</p>	<p>Candidate visually observes the positions of TCVs 1-4 by looking at the control VLV pos meters on H13*P680 prior to performing the test.</p>	<p>_____</p>	
<p>* 7. Depress and hold CV-1 TEST pushbutton and check CV-1 slow closes using CONTROL VLV-1 VLV POS.</p>	<p>CV-1 pushbutton depressed and held, CV-1 closing at moderate speed.</p>	<p>_____</p>	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
8. OBSERVE CV-2, CV-3, CV-4 OPENING TO COMPENSATE FOR CV-1 CLOSURE USING CONTROL VLV-2, -3, -4, VLV POS.	CANDIDATE OBSERVES CV-2, CV-3, CV-4 OPENING AS CV-1 CLOSES.		
9. CHECK FOR PROPER OPERATION OF THE FAST ACTING VALVE AS CV-1 CLOSES.	CANDIDATE OBSERVES CV-1 FAST CLOSE WHEN VALVE POSITION INDICATES APPROXIMATELY 10%.		
* 10. WHEN CV-1 HAS INDICATED CLOSED FOR 10 TO 15 SECONDS, THEN RELEASE CV-1 TEST PUSHBUTTON.	CANDIDATE RELEASES CV-1 TEST PUSHBUTTON WHEN VALVE HAS INDICATED FULLY CLOSED FOR AT LEAST 10 SECONDS, AND CV-1 IS OBSERVED OPENING.		
* 11. RECOGNIZE AND REPORT THAT CV-1 FAILS TO OPEN TO PRETEST POSITION. ● RESTORE FROM CV-1 FAILURE.	CANDIDATE RECOGNIZES AND REPORTS THAT CV-1 FAILS TO OPEN TO PRETEST POSITION. CANDIDATE, IN RESPONSE TO I&C'S DIRECTIONS, SHOULD PERFORM THE FOLLOWING: ● DEPRESS THE CV-1 TEST PUSHBUTTON. ● RELEASE THE CV-1 TEST PUSHBUTTON AND CONTINUE WITH THE STP.		CUE: RECEIVE REPORT OF FAILURE OF CV-1. [TIME COMPRESSION] INFORM CANDIDATE THAT I&C, SYSTEM ENGINEERING, AND OPERATIONS HAVE COMPLETED REPAIRS TO CV-1 AND ARE READY TO RETURN IT TO SERVICE. DIRECT CANDIDATE TO COORDINATE RESTORATION WITH I&C. I&C SHOULD BE CONTACTED VIA GAITRONICS.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
12. VERIFY THE FOLLOWING VALVES RETURN TO PRETEST POSITIONS: A. CV-1 USING CONTROL VLV-1 VLV POS B. CV-2 USING CONTROL VLV-2 VLV POS C. CV-3 USING CONTROL VLV-3 VLV POS D. CV-4 USING CONTROL VLV-4 VLV POS	CANDIDATE VERIFIES CV-1 THROUGH CV-4 RETURN TO APPROXIMATELY THE SAME POSITION NOTED PRIOR TO PERFORMANCE OF THE TEST.	_____	CUE: I (AS THE EVALUATOR) WILL COMPLETE THE INDEPENDENT VERIFICATION CUE: I (AS THE EVALUATOR) WILL COMPLETE THE INDEPENDENT VERIFICATION.
13. IF A HALF SCRAM WAS INITIATED, THEN RESET THE HALF SCRAM.	HALF SCRAM RESET.	_____	
14. VERIFY INDEPENDENT VERIFICATION STEPS FOR SECTION 7.5, 6 HAVE BEEN COMPLETED.		_____	

TERMINATION CRITERIA: TURBINE VALVE TESTING FOR TURBINE CONTROL VALVE #1 IS COMPLETE.

**RBS JOB PERFORMANCE MEASURE
VERIFICATION OF COMPLETION**

OPERATOR: _____ SSN: _____

EVALUATOR: _____ KCN: _____

DATE: _____ [LICENSE (CIRCLE ONE):] RO / SRO No. of Attempts: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

REACTOR POWER AT APPROXIMATELY 70%.

INITIATING CUES:

THE CBS DIRECTS YOU TO PERFORM TURBINE VALVE TESTING FOR TURBINE CONTROL VALVE #1 IN ACCORDANCE WITH QSP-0102, SECTION 7.5 (HIGH PRESSURE TURBINE CONTROL VALVE (CV) TESTING). THE PROCEDURE IS COMPLETE UP THROUGH STEP 7.4.4. THE EVALUATOR WILL ACT AS A SECOND QUALIFIED INDIVIDUAL TO MONITOR NON-TESTED TCVS.

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: Manually Startup RHR "A" in Suppression Pool Cooling from the Remote Shutdown Panel.

REQUIRED POWER: N/A

IC NO.: N/A

NOTES: None

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

AOP-0031

REQUIRED MATERIALS:

AOP-0031, ENCLOSURE 1

REQUIRED PLANT CONDITION:

ANY

APPLICABLE OBJECTIVES:

HLO-066

OBJ. 2

HLO-021

OBJ. 2, 6, 8, 6, 10.

SAFETY RELATED TASK:

(IF K/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

NONE

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED. IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

If In-Plant or In the Control Room.

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

Read to the Operator.

I will explain the initial conditions, and provide initiating cues. I may provide cues during the performance of this JPM. I may ask follow-up questions as part of this JPM. When you complete the task successfully, the objective for this JPM will be satisfied, you should inform me when you have completed the task.

INITIAL CONDITIONS:

The Control Room has been evacuated due to a fire and resulting fumes from a ventilation duct heater, the fire is out, the Reactor is in Hot Shutdown and control has been established at the Remote Shutdown Panel.

INITIATING CUE:

The CRS has directed you to place RHR "A" in Suppression Pool Cooling using ADP-0031, Enclosure 1. Normal Service Water is available for Heat Exchanger cooling.

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 1. Open RHR "A" HX Service Water return (1E12*MOV068A).	MOV068A OPENED, RED LIGHT, AND GREEN LIGHT ON. (INDICATES VALVE IS THROTTLED).	_____	
2. VERIFY SERVICE WATER FLOW.	<6300 GPM ON FLOW INDICATOR 1SWP*FI64A.	_____	CUE: 3800 GPM FLOW IS INDICATED ON 1SWP*FI64. NOTE: INDICATE FLOW BY INDICATING NEEDLE POSITION WITH A PEN OR PENCIL.
* 3. START RHR "A" PUMP.	RHR PUMP "A" RUNNING, RED LIGHT ON, GREEN LIGHT OFF.	_____	CUE: RED LIGHT ON, GREEN LIGHT OFF.
* 4. Open RHR "A" Test Return to Suppression Pool (1E12*MOV024A).	MOV024A OPEN, RED LIGHT ON, GREEN LIGHT OFF.	_____	CUE: RED LIGHT ON, GREEN LIGHT OFF.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
5. VERIFY RHR PUMP "A" AMPS IN ALLOWABLE RANGE.	PUMP AMPS VERIFIED AT SWITCHGEAR (ENS*SWG1A)	_____	CUE: 90 AMPS INDICATED. NOTE: INDICATE FLOW BY INDICATING NEEDLE POSITION WITH A PEN OR PENCIL.
6. CLOSE RHR "A" MINIMUM FLOW TO SUPPRESSION POOL (1E12*MOV064A)	MOV064A CLOSED, GREEN LIGHT ONLY.	_____	CUE: FLOW IS GREATER THAN 1100 GPM.
* 7. THROTTLE RHR "A" HX BYPASS AS NECESSARY (1E12*MOV048A).	MOV048A THROTTLED TO ACHIEVE DESIRED COOLING; DO NOT EXCEED 5550 GPM.	_____	

TERMINATING CUE: RHR "A" IN SUPPRESSION POOL COOLING.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____ KCM: _____

EVALUATOR: _____

DATE: _____ LICENSE (CIRCLE ONE): RO / SRO NO. OF ATTEMPTS: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

THE CONTROL ROOM HAS BEEN EVACUATED DUE TO A FIRE AND RESULTING FUMES FROM A VENTILATION DUCT HEATER, THE FIRE IS OUT, THE REACTOR IS IN HOT SHUTDOWN AND CONTROL HAS BEEN ESTABLISHED AT THE REMOTE SHUTDOWN PANEL.

INITIATING CUES:

THE CBS HAS DIRECTED YOU TO PLACE RHR "A" IN SUPPRESSION POOL COOLING USING RDP-0031, ENCLOSURE 1, NORMAL SERVICE WATER IS AVAILABLE FOR HEAT EXCHANGER COOLING.

TERMINATING CUES:

RHR "A" IN SUPPRESSION POOL COOLING.

JPM NUMBER: JPM-209-05 REV. 00

TASK DESCRIPTION: ADJUST RCIC FLOW

K/A REFERENCE & RATING: 217000 R1.01, 3.7/3.6
217000 R2.02, 3.8/3.7
217000 R3.04, 3.6/3.5
217000 R4.02, 3.9/3.9
217000 R4.08, 3.7/3.6

TASK REFERENCE: 217011001001
217019001001

TESTING METHOD: SIMULATE PERFORMANCE: ACTUAL PERFORMANCE:
CONTROL ROOM: SIMULATOR: IN-PLANT:

COMPLETION TIME: 15 MIN.

MAX. TIME: N/A

JOB LEVEL: ALL

TIME CRITICAL: NO

**EIP CLASSIFICATION
REQUIRED:** NO

PRA RISK DOMINATE: NO

ALTERNATE PATH (FAULTED): YES

SAFETY FUNCTION GROUP: 2

PREPARED BY: DAVID LOONEY
9/3/00

DATE:

OPS REVIEW: J.A. CLARK
9/3/00

DATE:

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: ADJUST RCIC FLOW

REQUIRED POWER: RPV PRESSURE > 550 PSIG

IC NO.: ANY (IC # 79)

NOTES: PLACE BHR A IN SUPPRESSION POOL COOLING AND PLACE CONTAINMENT HIGH VOLUME PURGE IN SERVICE.

PREVENT HIGH PRESSURE CORE SPRAY FROM INJECTION

TERMINATE FEEDWATER INJECTION AND LOWER RPV WATER LEVEL TO LEVEL 2 (ALLOW RCIC TO AUTO INITIATE). ALLOW RPV LEVEL TO RECOVER (MAINTAINING +10" TO +51").

ACTION REQUIRED: WHEN OPERATOR BEGINS TO ADJUST RCIC FLOW CONTROLLER, TRIP RCIC TURBINE.

ACTION LIST

MALFUNCTIONS

RCIC REACTOR CORE ISOLATION COOLING

RCIC001 RCIC TURBINE TRIP (INSERT)

RCIC001 RCIC TURBINE TRIP (DELETE)

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

SOP-0035, Reactor Core Isolation Cooling System

REQUIRED MATERIALS:

SOP-0035, Reactor Core Isolation Cooling System

REQUIRED PLANT CONDITION:

RCIC IN OPERATION, AUTO INITIATION DUE TO LOW RPV WATER LEVEL.

APPLICABLE OBJECTIVES:

SAFETY RELATED TASK:

{(F K/A) LESS THAN 3.0}

CONTROL MANIPULATIONS:

No

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

If In-Plant or In the Control Room.

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

Read to the Operator.

I will explain the initial conditions, and provide initiating cues. I may provide cues during the performance of this JPM. I may ask follow-up questions as part of this JPM. When you complete the task successfully, the objective for this JPM will be satisfied, you should inform me when you have completed the task.

INITIAL CONDITIONS:

RCIC is in operation due to an auto start on low water level. RHR A operating in Suppression Pool Cooling Mode. Containment Hi Volume Purge in Service.

INITIATING CUE:

The CRS has directed you as the Unit Operator to adjust RCIC injection flow to 400 GPM.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
1. ADJUST RCIC PUMP FLOW TO 400 GPM.	E51-R600, RCIC PUMP FLOW CONTROLLER, ADJUSTED TO ACHIEVE 350-450 GPM ON E51-R606, RCIC PUMP FLOW.	_____	NOTE: SIMULATOR INSTRUCTOR SHOULD INITIATE A RCIC TURBINE TRIP PRIOR TO OR AT THE COMPLETION OF THIS STEP (SEE PAGE 2 SIMULATOR SET UP SHEET).
* 2. RECOGNIZE AND REPORT RCIC TURBINE TRIP.	CANDIDATE INDICATES RCIC TURBINE TRIP.	_____	CUE: THE CRS DIRECTS YOU TO RE-START RCIC AND INJECT AT 400 GPM.
* 3. CLOSE E51-C002, RCIC TRIP & THROTTLE VALVE OPERATOR.		_____	
4. CHECK FOR RCIC OVERSPEED.	IF THE E51-C002, RCIC TRIP & THROTTLE VALVE OPERATOR WILL NOT LATCH TO THE RCIC TRIP & THROTTLE VALVE AS INDICATED BY INDICATOR LIGHTS ON THE THE RCIC TRIP & THROTTLE VALVE THEN OVERSPEED CONDITION EXISTED OR ASK THE CRS.	_____	CUE: IF ASK: RCIC TURBINE TRIP WAS NOT OVERSPEED.
5. THROTTLE E51-C002, RCIC TRIP & THROTTLE VALVE OPERATOR OPEN TO OBTAIN 3000 RPM, ON E51-C002-1, RCIC TURBINE SPEED.	VALVE OPEN, RED LIGHTS ON AND GREEN LIGHTS OFF. 2500 - 3500 RPM INDICATED ON E51-C002-1, RCIC TURBINE SPEED.	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 6. OPEN E51-F013, RCIC INJECT ISOL VALVE	VALVE OPENED, RED LIGHT ON AND GREEN LIGHT OFF	_____	
* 7. THROTTLE E51-C002, RCIC TRIP & THROTTLE VALVE OPERATOR OR ADJUST E51-R600, RCIC PUMP FLOW CONTROLLER HYVC002	ADJUSTED TO ACHIEVE 350-450 GPM ON E51-R606, RCIC PUMP FLOW.	_____	

TERMINATING CUE: RCIC INJECTING WITH A FLOW RATE OF 350-450 GPM.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____

EVALUATOR: _____ KCN: _____

DATE: _____ LICENSE (CIRCLE ONE): RO / SRO No. of ATTEMPTS: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

RCIC IS IN OPERATION DUE TO AN AUTO START ON LOW WATER LEVEL. RHR A OPERATING IN SUPPRESSION POOL COOLING MODE. CONTAINMENT HI VOLUME PURGE IN SERVICE.

INITIATING CUES:

THE CBS HAS DIRECTED YOU AS THE UNIT OPERATOR TO ADJUST RCIC INJECTION FLOW TO 400 GPM.

TERMINATING CUES:

RCIC INJECTING WITH A FLOW RATE OF 350-450 GPM.

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: MANUALLY STARTUP STANDBY GAS TREATMENT TRAIN B TAKING A SUCTION ON THE AUXILIARY BUILDING WITH B COMPONENT FAILURE.

REQUIRED POWER: ANY

IC NO.: ANY

NOTES: OVERRIDE GTS-AOD22B, GTS FILTER 'B' RECIRC DAMPER
RED LIGHT OFF AND GREEN LIGHT ON.

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT: SOP-0043, Standby Gas Treatment System

REQUIRED MATERIALS: SOP-0043, Standby Gas Treatment System

REQUIRED PLANT CONDITION: STANDBY GAS TREATMENT IN A NORMAL STANDBY LINEUP.

APPLICABLE OBJECTIVES: HLO-033-03, OBJ 3, 5, 7, AND 8

SAFETY RELATED TASK: (IF K/A LESS THAN 3,0)

CONTROL MANIPULATIONS: NONE

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

If In-Plant or In the Control Room.

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

Read to the Operator.

I will explain the initial conditions, and provide initiating cues. I may provide cues during the performance of this JPM. I may ask follow-up questions as part of this JPM. When you complete the task successfully, the objective for this JPM will be satisfied, you should inform me when you have completed the task.

INITIAL CONDITIONS:

Standby Gas Treatment in a Normal Standby Lineup and the following systems are operating.

- Fire Water Protection System per SOP-0037, Fire Protection - Water System.
- Instrument Air System per SOP-0022, Instrument Air System.
- Containment HVAC per SOP-0059, Containment Building HVAC.
- Auxiliary Building HVAC per SOP-0065, Auxiliary Building HVAC.
- Floor and Equipment Drains System per SOP-0104, Floor & Equipment Drains.

INITIATING CUE:

The CRS has directed you as the Unit Operator to manually start Standby Gas Treatment Train 'B' taking a suction on the Auxiliary Building for engineering evaluation of building air flows. The CRS informs you **NOT** to use the MANUAL INITIATE Pushbuttons.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 1. SELECT THE AUXILIARY BUILDING FOR THE GTS SYSTEM TO DRAW AIR AND OPEN HVR-A0010B.	HVR-A0010B IS OPEN, RED LIGHTS ON AND GREEN LIGHTS ARE OFF.	_____	
2. OPEN HVR-A0022B, ANNULUS MIXING OUT DMPR TO GTS	HVR-A0022B IS OPEN, RED LIGHTS ON AND GREEN LIGHTS ARE OFF.	_____	
* 3. START STANDBY GAS TREATMENT EXHAUST FAN B	STANDBY GAS TREATMENT EXHAUST FAN B RUNNING, RED LIGHT IS ON AND GREEN LIGHT IS OFF.	_____	THE START SWITCH MUST REMAIN DEPRESSED UNTIL GTS-A001A, SGT FILTER SUCTION ISOLATION, IS FULL OPEN.
4. VERIFY GTS-A001B SGT FILTER B SUCTION ISOL OPENS.	GTS-A001B IS OPEN, RED LIGHT IS ON AND GREEN LIGHT IS OFF.	_____	
5. VERIFY GTS-FN1B, STBY GAS TRTMT EXH FN STARTS.	GTS-FN1B IS OPEN, RED LIGHT IS ON AND GREEN LIGHT IS OFF.	_____	
6. VERIFY GTS-A003B, SGT EXH FAN B DISCH OPENS.	GTS-A003B IS OPEN, RED LIGHT IS ON AND GREEN LIGHT IS OFF.	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
7. OPEN GTS-ADD22B, GTS FILTER 'B' RECIRC DAMPER.		_____	<p>NOTE TO EVALUATOR: THIS DAMPER IS FAILED, AND WILL NOT OPEN.</p> <p>THEN INFORMED AS CRS THEN:</p> <p>CUE: TO ALLOW THE ENGINEERING STAFF TO COMPLETE TEST, SHUTDOWN THE 'B' TRAIN AND START THE 'A' TRAIN OF STANDBY GAS ON THE AUX BUILDING.</p>
8. VERIFY BOTH AUX BLDG TO SGT FLT A(B) MAN INIT RESET PUSHBUTTONS ARE DEPRESSED.	PUSHBUTTONS IN RESET POSITION	_____	
* 9. STOP GTS-FN1B, SGT EXH FAN B.	GTS-FN1B, SGT EXH FAN B GREEN AND WRIGHT LIGHT ONLY.	_____	
10. VERIFY GTS-ADD1B SGT FILTER B SUCTION ISOL CLOSSES.	GTS-ADD1B SGT FILTER B SUCTION ISOL GREEN LIGHT ONLY.	_____	
11. VERIFY GTS-ADD3B, SGT EXH FAN B DISCH CLOSSES.	GTS-ADD3B, SGT EXH FAN B DISCH GREEN LIGHT ONLY.	_____	
12. PLACE GTS-ADD22B, GTS FILTER 'B' RECIRC DAMPER IN AUTO POSITION.	GTS-ADD22B, GTS FILTER 'B' RECIRC IN AUTO.	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
13. VERIFY GTS-ADD22B, GTS FILTER 'B' RECIRC CLOSED.	GTS-ADD22B, GTS FILTER 'B' RECIRC GREEN LIGHT ONLY.	_____	
* 14. CLOSE HVR-ADD18B AUX BLUG TO GTS ISOLATION	HVR-ADD18B AUX BLUG TO GTS ISOLATION GREEN LIGHT ONLY.	_____	
* 15. CLOSE HVR-ADD22B, ANNULUS MIXING OUT DMPR TO GTS	HVR-ADD22B, ANNULUS MIXING OUT DMPR TO GTS GREEN LIGHT ONLY	_____	
16. VERIFY GTS-FN2B, GTS B DECAY HEAT REMOVAL RUNNING	GTS-FN2B, GTS B DECAY HEAT REMOVAL RED LIGHT.	_____	
17. VERIFY GTS-ADD4B, DECAY HEAT REMOVAL INTK OPEN	GTS-ADD4B, DECAY HEAT REMOVAL INTK GREEN LIGHT ONLY.	_____	THEN ASK: CUE: ALLOW THE DECAY HEAT REMOVAL FAN TO OPERATE.
* 18. SELECT THE AUXILIARY BUILDING FOR THE GTS SYSTEM TO DRAW AIR AND OPEN HVR-ADD18A.	HVR-ADD18A IS OPEN, RED LIGHTS ON AND GREEN LIGHTS ARE OFF.	_____	
19. OPEN HVR-ADD22A, ANNULUS MIXING OUT DMPR TO GTS	HVR-ADD22A IS OPEN, RED LIGHTS ON AND GREEN LIGHTS ARE OFF.	_____	
* 20. START STANDBY GAS TREATMENT EXHAUST FAN A	STANDBY GAS TREATMENT EXHAUST FAN A RUNNING, RED LIGHT IS ON AND GREEN LIGHT IS OFF.	_____	THE START SWITCH MUST REMAIN DEPRESSED UNTIL GTS-ADD1A, SGT FILTER SUCTION ISOLATION, IS FULL OPEN.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
21. VERIFY GTS-ROD1A SGT FILTER A SUCTION ISOL OPENS.	GTS-ROD1A IS OPEN; RED LIGHT IS ON AND GREEN LIGHT IS OFF.	_____	
22. VERIFY GTS-FN1A STBY GAS TRTMT EXH FN STARTS.	GTS-FN1A IS OPEN; RED LIGHT IS ON AND GREEN LIGHT IS OFF.	_____	
23. VERIFY GTS-ROD3A SGT EXH FAN A DISCH OPENS.	GTS-ROD3A IS OPEN; RED LIGHT IS ON AND GREEN LIGHT IS OFF.	_____	
* 24. OPEN GTS-ROD22A. GTS FILTER 'A' RECIRC DAMPER.	GTS-ROD22A. GTS FILTER 'A' RECIRC IS OPEN; RED LIGHT ONLY.	_____	

TERMINATING CUE: Standby Gas Treatment Train taking a suction on the Auxiliary Building in accordance with SOP-0043, Standby Gas Treatment System.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____ KGN: _____

EVALUATOR: _____

DATE: _____ LICENSE (CIRCLE ONE): RO / SRO No. of ATTEMPTS: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

STANDBY GAS TREATMENT IN A NORMAL STANDBY LINEUP AND THE FOLLOWING SYSTEMS ARE OPERATING:

- FIRE WATER PROTECTION SYSTEM PER SOP-0037, FIRE PROTECTION - WATER SYSTEM.
- INSTRUMENT AIR SYSTEM PER SOP-0022, INSTRUMENT AIR SYSTEM.
- CONTAINMENT HVAC PER SOP-0059, CONTAINMENT BUILDING HVAC.
- AUXILIARY BUILDING HVAC PER SOP-0065, AUXILIARY BUILDING HVAC.
- FLOOR AND EQUIPMENT DRAINS SYSTEM PER SOP-0104, FLOOR & EQUIPMENT DRAINS.

INITIATING CUES:

THE CRS HAS DIRECTED YOU AS THE UNIT OPERATOR TO MANUALLY START STANDBY GAS TREATMENT TRAIN 'B' TAKING A SUCTION ON THE AUXILIARY BUILDING FOR ENGINEERING EVALUATION OF BUILDING AIR FLOWS. THE CRS INFORMS YOU **NOT** TO USE THE MANUAL INITIATE PUSHBUTTONS.

TERMINATING CUES:

STANDBY GAS TREATMENT TRAIN TAKING A SUCTION ON THE AUXILIARY BUILDING IN ACCORDANCE WITH SOP-0043, Standby Gas Treatment System.

RBS JOB PERFORMANCE MEASURE

JPM NUMBER: JPM-305-01 , REVISION 0

TASK DESCRIPTION: PLACE THE DIVISION 3 125 VDC BATTERY CHARGER IN SERVICE

K/A REFERENCE & RATING: 263000 K1.02 3.2/3.3
K4.02 3.1/3.5
R1.01 2.5/2.8
R3.01 3.2/3.3

TASK REFERENCE:

TESTING METHOD: SIMULATE PERFORMANCE: ACTUAL PERFORMANCE: _____
CONTROL ROOM: SIMULATOR: _____ IN-PLANT:

COMPLETION TIME: 8 MINUTES

MAX. TIME: N/A

JOB LEVEL: RO/SRO

TIME CRITICAL: No

**EIP CLASSIFICATION
REQUIRED:** No

PRA RISK DOMINATE: No

ALTERNATE PATH (FAULTED): No

SAFETY FUNCTION GROUP: 4

PREPARED BY: DAVID LOONEY **DATE:** 9/3/00

OPS REVIEW: J.A. CLARK **DATE:** 9/3/00

APPROVED BY: M.K. CANTRELL **DATE:** 9/3/00

RBS JOB PERFORMANCE MEASURE

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: PLACE THE DIVISION 3 125 VDC BATTERY CHARGER IN SERVICE

REQUIRED POWER: N/A

IC NO.: N/A

NOTES: N/A

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

SOP-049 125 VDC SYSTEM, OSP-0028 LOG REPORT - NORMAL SWITCHGEAR, CONTROL, AND DIESEL GENERATOR BUILDINGS.

REQUIRED MATERIALS:

SOP-049 125 VDC SYSTEM

REQUIRED PLANT CONDITION:

ANY

APPLICABLE OBJECTIVES:

SAFETY RELATED TASK:

N/A

(IF K/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

If In-Plant or In the Control Room.

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

Read to the Operator,

I will explain the initial conditions, and provide initiating cues. I may provide cues during the performance of this JPM. I will ask follow-up questions as part of this JPM. When you complete the task successfully, the objective for this JPM will be satisfied. You should inform me when you have completed the task.

INITIAL CONDITIONS: Division 3 battery surveillances have all been completed, and the Division 3 battery is in service supplying all loads. Testing of the Division 3 battery charger has just been completed.

INITIATING CUE: The CBS has directed you to place the Division 3 battery charger in service.

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
1. VERIFY BATTERY SURVEILLANCE IS CURRENT AND BATTERY IS READY FOR SERVICE.		_____	
2. VERIFY OPEN AC SUPPLY BREAKER ON E22-S001CGR, DIV III 125VDC HPCS BATTERY CHARGER.	E22-S001CGR, DIV III 125VDC HPCS BATTERY CHARGER AC BREAKER OFF.	_____	
3. VERIFY OPEN DC OUTPUT BREAKER ON E22-S001CGR, DIV III 125VDC HPCS BATTERY CHARGER.	E22-S001CGR, DIV III 125VDC HPCS BATTERY CHARGER DC BREAKER OFF.	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 4. On E22-S002, DIV III HPCS MOTOR CONTROL CENTER, CLOSE BREAKER 3AL, HPCS BATT CHRG NO. 1 SUPPLY BREAKER.	3AL, HPCS BATT CHRG NO. 1 SUPPLY BREAKER CLOSED.	_____	
5. VERIFY CLOSED E22-SW1, FUSED DISCONNECT SWITCH IN DIV III BATTERY CHARGER ROOM.	E22-SW1, FUSED DISCONNECT SWITCH IN DIV III BATTERY CHARGER ROOM CLOSED.	_____	
6. VERIFY CLOSED CB9, E22-S001 CGR BATTERY CHARGER SUPPLY BREAKER ON E22-PNLS001, DIV III 125VDC SWITCHGEAR.	CB9, E22-S001 CGR BATTERY CHARGER SUPPLY BREAKER ON E22-PNLS001, DIV III 125VDC SWITCHGEAR CLOSED.	_____	
* 7. CLOSE THE DC OUTPUT BREAKER ON E22-S001CGR, 125VDC HPCS BATTERY CHARGER	ON E22-S001CGR, 125VDC HPCS BATTERY CHARGER DC OUTPUT BREAKER CLOSED.	_____	
8. VERIFY THE FLOAT-EQUALIZE SWITCH IS IN NORMAL.	SWITCH IN NORMAL.	_____	NOTE: IF THE CHARGER IS IN EQUALIZE THEN QUE , SWITCH IN NORMAL
* 9. CLOSE THE AC SUPPLY BREAKER AND VERIFY THE AMBER AC ON LAMP IS ILLUMINATED, ON E22-S001CGR, 125VDC HPCS BATTERY CHARGER.	AC ON LAMP IS ILLUMINATED.	_____	
10. VERIFY CHARGER DC AMPS AND VOLTS ARE NORMAL.	132 VDC - 140 VDC, <50 AMPS.	_____	NOTE: IF THE CHARGER IS IN EQUALIZE THEN QUE , 135 VDC, <50 AMPS

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
11. VERIFY BREAKERS ARE AS INDICATED ON SOP-049 125 VDC SYSTEM. ATTACHMENT 1C.	CANDIDATE SHOULD INITIAL THE 1 ST BLOCK.	—	

TERMINATION CRITERIA: DIVISION 3 DC BATTERY CHARGER IN SERVICE.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____ KCN: _____

EVALUATOR: _____

DATE: _____ [LICENSE (CIRCLE ONE): _____] RO / SRO No. of Attempts: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

DIVISION 3 BATTERY SURVEILLANCES HAVE ALL BEEN COMPLETED, AND THE DIVISION 3 BATTERY IS IN SERVICE SUPPLYING ALL LOADS, TESTING OF THE DIVISION 3 BATTERY CHARGER HAS JUST BEEN COMPLETED.

INITIATING CUES:

THE CRS HAS DIRECTED YOU TO PLACE THE DIVISION 3 BATTERY CHARGER IN SERVICE.

TERMINATION CRITERIA:

DIVISION 3 DC BATTERY CHARGER IN SERVICE.

RBS JOB PERFORMANCE MEASURE

APPROVED BY: _____

DATE: _____

KCN

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: PARALLEL AND LOAD DIVISION III DG

REQUIRED POWER: ANY

IC NO.: ANY

NOTES:

- 1). DIV III EDG RUNNING AT IDLE SPEED
- 2). SOP-0052, SECT. 5.1 COMPLETE THROUGH STEP 5.1.2
- 3). PROVIDE COPY OF PROCEDURE

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

SOP-0052, HPCS Diesel Generator

REQUIRED MATERIALS:

SOP-0052 SECTION 5, PARALLEL OF D/G WITH OFFSITE POWER FROM MAIN CONTROL ROOM
SOP-0052 ATTACHMENT 6, KW vs. KVAR (8 PF).

REQUIRED PLANT CONDITION:

DIVISION III EDG HAS BEEN RUNNING AT IDLE SPEED (APPROX. 900 RPM) FOR 3 MINUTES. SPEED DROOP HAS BEEN SET AT 60. JACKET WATER AND CYLINDER EXHAUST TEMPERATURES HAVE BEEN VERIFIED.

APPLICABLE OBJECTIVES:

HLO-075-02, OBJ 4, 6, AND 10

SAFETY RELATED TASK:

(IF K/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

NONE

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED. IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AP PROPRATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

If In-Plant or In the Control Room.

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

Read to the Operator.

I will explain the initial conditions, and provide initiating cues. I may provide cues during the performance of this JPM. I may ask follow-up questions as part of this JPM. When you complete the task successfully, the objective for this JPM will be satisfied, you should inform me when you have completed the task.

INITIAL CONDITIONS:

Division III EDG has been running at idle speed (approx. 900 RPM) for 3 minutes. Speed droop has been set at 60. Jacket water and cylinder exhaust temperatures have been verified.

INITIATING CUE:

Division III EDG has been started using SOP-0052. The EDG has been running at idle speed for 3 minutes and the procedure is complete through Step 5.1.2. The CRS directs you to parallel the Div. III EDG with the bus and load it to 2000 KW from the control room.

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 1. PLACE THE E22B-S6, E22-ACB01 SYNC SWITCH, TO THE GEN/BUS POSITION.	SYNC. SWITCH IN THE GEN/BUS POSITION	_____	
2. (USING E22B-S3, HPCS DIESEL GENERATOR VOLTAGE REGULATOR CONT. MATCH E22-R611, INCOMING VOLTAGE TO E22-R614, RUNNING VOLTAGE.	E22-R611, INCOMING VOLTAGE AND E22-R614, RUNNING VOLTAGE VOLTAGES MATCHED.	_____	
* 3. (USING E22B-S11, HPCS DIESEL GENERATOR GOVERNOR CONTROL SWITCH, VERIFY GOVERNOR CONTROL BY RAISING AND LOWERING DIESEL GENERATOR SPEED TO CAUSE THE SYNCHROSCOPE TO ROTATE IN BOTH THE CLOCKWISE AND COUNTERCLOCKWISE DIRECTIONS,	DIESEL GENERATOR SPEED RAISED AND LOWERED CAUSING THE SYNCHROSCOPE TO ROTATE IN BOTH THE CLOCKWISE AND COUNTERCLOCKWISE DIRECTIONS,	_____	
4. (USING E22B-S11, HPCS DIESEL GENERATOR GOVERNOR CONTROL SWITCH, ADJUST FREQUENCY UNTIL THE DIESEL GENERATOR SYNCHROSCOPE ROTATES IN THE FAST, OR CLOCKWISE DIRECTION AT THE RATE OF ONE REVOLUTION IN GREATER THAN OR EQUAL TO 4 SECONDS AND LESS THAN OR EQUAL TO 6 SECONDS.	SYNCHROSCOPE ROTATING IN THE FAST DIRECTION, ONE ROTATION EVERY 4 TO 6 SECONDS.	_____	
* 5. REPEAT STEPS 5,1,3,2 AND 2,1,3,4 AS NEEDED TO MAINTAIN INCOMING AND RUNNING VOLTAGES MATCHED AND THE SYNCHROSCOPE MOVING IN THE FAST DIRECTION AT THE RATE OF ONE REVOLUTION EVERY 4 TO 6 SECONDS.	INCOMING AND RUNNING VOLTAGES MATCHED AND SYNCHROSCOPE ROTATING IN THE FAST DIRECTION EVERY 4 TO 6 SECONDS	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 6. ALLOW SYNC SCOPE TO MAKE AT LEAST FIVE REVOLUTIONS TO CHECK FREQUENCY RELIABILITY. OBSERVE SYNC LIGHTS DIM OR GO OUT AT 12 O'CLOCK ON THE SYNC SCOPE	SYNCHROSCOPE SPEED REMAINS FAIRLY CONSTANT AND SYNC LIGHTS CHANGE APPROPRIATELY	_____	
* 7. WHEN THE SYNCHROSCOPE NEEDLE IS LESS THAN OR EQUAL TO 5 MINUTES AND GREATER THAN OR EQUAL TO 2 MINUTES BEFORE THE 12 O'CLOCK POSITION, THEN CLOSE [E22-ACB01, HPCS D/G OUTPUT BRKR	BREAKER [E22-ACB01 CLOSED AND GENERATOR FREQUENCY APPROXIMATELY 60 HZ.	_____	
* 8. USING [E22B-S3, HPCS DIESEL GENERATOR VOLTAGE REGULATOR CONT MAINTAIN POSITIVE 100 TO 200 KVARs OUT.	REGULATOR ADJUSTED TO MAINTAIN 100 TO 200 KVARs ON [E22-R608.	_____	
9. PLACE [E22B-S6, [E22-ACB01 SYNC SWITCH, TO OFF.	SYNC SWITCH IN OFF POSITION.	_____	
* 10. USING [E22B-S11, HPCS DIESEL GENERATOR GOVERNOR CONTROL AND [E22B-S3, HPCS DIESEL GENERATOR VOLTAGE REGULATOR CONT, APPLY LOAD TO THE DIESEL GENERATOR. MAINTAIN KVARs BASED ON DIESEL GENERATOR LOAD PER ATTACHMENT 6 KW VS KVAR (0.8 PF)	GENERATOR LOAD (KW) RAISED USING GOVERNOR CONTROL SWITCH. LOAD INCREASED TO 1950-2100 KW. KVARs WITHIN LIMITS OF SOP-0052 ATTACHMENT 6	_____	

TERMINATING CUE: Div III EDG PARALLELED WITH BUS AND LOADED TO 1950-2100 KW.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____

EVALUATOR: _____ KCN: _____

DATE: _____ LICENSE (CIRCLE ONE): RO / SRO No. OF ATTEMPTS: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

DIVISION III EDG HAS BEEN RUNNING AT IDLE SPEED (APPROX. 900 RPM) FOR 3 MINUTES. SPEED DROOP HAS BEEN SET AT 60. JACKET WATER AND CYLINDER EXHAUST TEMPERATURES HAVE BEEN VERIFIED.

INITIATING CUES:

DIVISION III EDG HAS BEEN STARTED USING SOP-0052. THE EDG HAS BEEN RUNNING AT IDLE SPEED FOR 3 MINUTES AND THE PROCEDURE IS COMPLETE THROUGH STEP 5.1.2. THE CRS DIRECTS YOU TO PARALLEL THE DIV. III EDG WITH THE BUS AND LOAD IT TO 2000 KW FROM THE CONTROL ROOM.

TERMINATING CUES:

DIV III EDG PARALLELED WITH BUS AND LOADED TO 1950-2100 KW.

RBS JOB PERFORMANCE MEASURE

JPM NUMBER: JPM-800-14, REVISION: 4

TASK DESCRIPTION: DEFEAT THE RCGIS INTERLOCKS

K/A REFERENCE & RATING: 201005 K4.04 3.5/3.5
R2.06 3.2/3.2

TASK REFERENCE: 200049005001

TESTING METHOD: SIMULATE PERFORMANCE ACTUAL PERFORMANCE:
CONTROL ROOM: SIMULATOR: IN-PLANT:

COMPLETION TIME: 5 MIN.

MAX. TIME: N/A

JOB LEVEL: RO/SRO

TIME CRITICAL: No

**EIP CLASSIFICATION
REQUIRED:** No

PRA RISK DOMINATE: No

ALTERNATE PATH (FAULTED): No

SAFETY FUNCTION GROUP: 1

PREPARED BY: DAVID LOONEY **DATE:** 9/3/00

OPS REVIEW: J.A. CLARK **DATE:** 9/3/00

APPROVED BY: M.K. CANTRELL **DATE:** 9/3/00

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: N/A

REQUIRED POWER: N/A

IC NO.: N/A

NOTES: N/A

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

EOP-0005, ENCLOSURE 14, Defeating RC&IS Interlocks and Emergency Control Rod Insertion Data Sheet.

REQUIRED MATERIALS:

EOP-0005, ENCLOSURE 14.

REQUIRED PLANT CONDITION:

ANY, SIMULATED CONDITION.

APPLICABLE OBJECTIVES:

SAFETY RELATED TASK:

N/A

(If K/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

016, MISPOSITIONED CONTROL RODS

020, TURBINE/GENERATOR TRIP

023, REACTOR SCRAM

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AP PROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

If In-Plant or In the Control Room:

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

Read to the Operator:

I will explain the initial conditions, and provide initiating cues. I may provide cues during the performance of this JPM. I will ask follow-up questions as part of this JPM. When you complete the task successfully, the objective for this JPM will be satisfied. You should inform me when you have completed the task.

INITIAL CONDITIONS: A Reactor SCRAM has occurred and 17 rods have failed to insert. Control Rod Withdraw Blocks and Control Rod Insert Blocks exist. EOP-0005 Enclosure 16 is installed.

INITIATING CUE: The CRS has directed you to defeat the RCS Control Rod Insert Blocks using EOP-0005 Enclosure 14.

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 1. Obtain Rosemount Locking Bar Key, Enclosure 14.	EOP-0005 Enclosure 14 key, OR Key No. 46 is obtained	_____	Key No. 46, from SS/CRS will also unlock locking bar.
* 2. Unlock and remove the locking bar from C11-N654B, First Stage Turbine Pressure Trip Unit	Locking bar is removed	_____	TRIP UNIT C11-N654B IS LOCATED ON PANEL 1#13*P618, LEFT COLUMN, 2ND ROW, 1ST UNIT. CUE: LOCKING BAR REMOVED

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
3. VERIFY THE CENTER KNOB IS FULL OUT	CENTER KNOB ON CAL SWITCH IS FULL OUT	_____	CENTER KNOB IS LOCATED ON THE CAL UNIT CAL SELECT SWITCH. CUE: CENTER KNOB IS FULL OUT
4. VERIFY TRANSIENT CURRENT KNOB IS FULL OUT	TRANSIENT CURRENT KNOB IS FULL OUT	_____	TRANSIENT CURRENT KNOB IS LOCATED ON THE CAL UNIT. CUE: TRANSIENT CURRENT KNOB IS FULL OUT
5. VERIFY CENTER KNOB IS ROTATED FULLY COUNTER-CLOCKWISE	CENTER KNOB IS ROTATED FULLY COUNTER-CLOCKWISE	_____	CUE: CENTER KNOB IS ROTATED FULLY COUNTER-CLOCKWISE
* 6. ROTATE CENTER KNOB ONE CLICK CLOCKWISE TO POSITION 1.	CENTER KNOB IS IN POSITION 1	_____	CUE: CENTER KNOB IS IN POSITION 1.
* 7. TURN POWER SWITCH TO ON	POWER SWITCH IS IN THE ON POSITION	_____	POWER SWITCH IS LOCATED ON THE CAL UNIT. CUE: POWER SWITCH IS ON
* 8. DEPRESS CENTER KNOB	CENTER KNOB DEPRESSED	_____	CUE: CENTER KNOB IS DEPRESSED

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 9. ROTATE STABLE CURRENT KNOB FULLY CLOCKWISE UNTIL METER ON TRIP UNIT IS FULL SCALE AND TRIP IS RESET	STABLE CURRENT KNOB FULLY CLOCKWISE AND TRIP RESET	_____	STABLE CURRENT KNOB IS LOCATED ON CAL UNIT. CUE: STABLE CURRENT KNOB IS FULLY CLOCKWISE, TRIP UNIT C11-N654B IS FULL SCALE AND RED TRIP LIGHT ON C11-N654B IS OFF.
* 10. UNLOCK AND REMOVE THE LOCKING BAR FROM C11-N654A, FIRST STAGE TURBINE PRESSURE TRIP UNIT	LOCKING BAR REMOVED	_____	TRIP UNIT C11-N654A IS LOCATED ON PANEL 1H13*P629, RIGHT COLUMN, BOTTOM ROW, 8TH UNIT. CUE: LOCKING BAR REMOVED.
11. VERIFY THE CENTER KNOB IS FULL OUT.	CENTER KNOB ON CAL SWITCH IS FULL OUT	_____	CENTER KNOB IS LOCATED ON THE CAL UNIT CAL SELECT SWITCH. CUE: CENTER KNOB IS FULL OUT.
12. VERIFY TRANSIENT CURRENT KNOB IS FULL OUT	TRANSIENT CURRENT KNOB IS FULL OUT	_____	TRANSIENT CURRENT KNOB IS LOCATED ON THE CAL UNIT. CUE: TRANSIENT CURRENT KNOB IS FULL OUT
13. VERIFY CENTER KNOB IS ROTATED FULLY COUNTER-CLOCKWISE.	CENTER KNOB IS ROTATED FULLY COUNTER-CLOCKWISE	_____	CUE: CENTER KNOB IS ROTATED FULLY COUNTER-CLOCKWISE

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 14 ROTATE CENTER KNOB EIGHT CLICKS CLOCKWISE TO POSITION 8	CENTER KNOB IN POSITION 8	_____	CUE: CENTER KNOB IS IN POSITION 8.
* 15 TURN POWER SWITCH TO ON.	POWER SWITCH IS IN THE ON POSITION.	_____	POWER SWITCH IS LOCATED ON THE CAL UNIT. CUE: POWER SWITCH IS ON
* 16 DEPRESS CENTER KNOB	CENTER KNOB DEPRESSED	_____	CUE: CENTER KNOB IS DEPRESSED
* 17 ROTATE STABLE CURRENT KNOB FULLY CLOCKWISE UNTIL METER ON TRIP UNIT IS FULL SCALE AND TRIP IS RESET.	STABLE CURRENT KNOB FULLY CLOCKWISE AND TRIP RESET	_____	STABLE CURRENT KNOB IS LOCATED ON CAL UNIT. CUE: STABLE CURRENT KNOB IS FULLY CLOCKWISE, TRIP UNIT C11-N654A IS FULL SCALE AND RED TRIP LIGHT ON C11-N654A IS OFF.
17 REPORT TO THE CRS/RO THAT EOP-0005 ENCLOSURE 14 TRIPS HAVE BEEN RESET.	STATES EOP-0005 ENCLOSURE 14 ACGIS BLOCKS ARE NOW BYPASSED.	_____	NOTE: CANDIDATE MAY SIMPLY INDICATE THAT RODS MAY NOW BE DRIVEN INWARD.

TERMINATION CRITERIA: ACGIS INTERLOCKS HAVE BEEN DEFEATED.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____

EVALUATOR: _____ KCN: _____

DATE: _____ [LICENSE (CIRCLE ONE): _____] RO / SRO No. of Attempts: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

A REACTOR SCRAM HAS OCCURRED AND 17 RODS HAVE FAILED TO INSERT. CONTROL ROD WITHDRAW BLOCKS AND CONTROL ROD INSERT BLOCKS EXIST. EOP-0005 ENCLOSURE 16 IS INSTALLED.

INITIATING CUES:

THE CBS HAS DIRECTED YOU TO DEFEAT THE RCGIS CONTROL ROD INSERT BLOCKS USING EOP-0005 ENCLOSURE 14.

TERMINATION CRITERIA:

RCGIS INTERLOCKS HAVE BEEN DEFEATED.

RBS JOB PERFORMANCE MEASURE

JPM NUMBER: JPM-800-35, REVISION 0

TASK DESCRIPTION: OPERATE ADHR/SPC AND INJECT INTO THE RPV.

K/A REFERENCE & RATING: 205000 G2.1.30 4.2/4.2
G2.4.6 3.1/3.1
E81.08 3.0/3.0

TASK REFERENCE:

TESTING METHOD: SIMULATE PERFORMANCE: ACTUAL PERFORMANCE:
CONTROL ROOM: SIMULATOR: IN-PLANT:

COMPLETION TIME: 13 MINUTES

MAX. TIME: N/A

JOB LEVEL: RO/SRO

TIME CRITICAL: No

**EIP CLASSIFICATION
REQUIRED:** No

PRA RISK DOMINATE: No

ALTERNATE PATH (FAULTED): No

SAFETY FUNCTION GROUP: 4

PREPARED BY: DAVID LOONEY **DATE:** 9/3/00

OPS REVIEW: J.A. CLARK **DATE:** 9/3/00

APPROVED BY: M.K. CANTRELL **DATE:** 9/3/00

RBS JOB PERFORMANCE MEASURE

SIMULATOR SETUP SHEET

TASK DESCRIPTION: OPERATE RHR/SPC AND INJECT INTO THE RPV.

REQUIRED POWER: SHUTDOWN

IC NO.: 71

NOTES: REACTOR DEPRESSURIZED _____

RHR "C" UNAVAILABLE (TAGGED OUT) _____

PLACE ENCL 35 KEYLOCK SWITCHES TO BYPASS

WHEN ASK: TO OPEN RBS-V3022 (RHR "C" TEST RETURN TO SP MAN (SOL)

THEN:

ACTION

REMOTE FUNCTION

EOP EMERGENCY OPERATING PROCEDURES

EOP35 EOP-5 ENCL35 (SPC OPERATION)

JUMPRO

INSERT

MALE/OR

IMF HPCS002

TRIP RCIC TURBINE

BACKOUT BREAKERS FOR RHR A, B, C, LPCS

TRIP CRD PUMP A & B

SECURE RFP A, B, C

PLACE THE DIV II LINE FILL PUMP IN OFF

RBS JOB PERFORMANCE MEASURE

DATA SHEET

REFERENCES FOR DEVELOPMENT:

EOP-0005, ENCLOSURE 35

REQUIRED MATERIALS:

EOP-0005, ENCLOSURE 35

REQUIRED PLANT CONDITION:

N/A

APPLICABLE OBJECTIVES:

SAFETY RELATED TASK:

N/A

(If K/A LESS THAN 3.0)

CONTROL MANIPULATIONS:

NONE

ITEMS MARKED WITH AN "*" ARE REQUIRED TO BE PERFORMED, AND ARE **CRITICAL STEPS**. FAILURE TO SUCCESSFULLY COMPLETE A **CRITICAL STEP** REQUIRES THE JPM TO BE EVALUATED AS "UNSATISFACTORY". COMMENTS DESCRIBING THE REASON FOR FAILURE ARE REQUIRED IN THE COMMENTS SECTION OF THE VERIFICATION OF COMPLETION SHEET.

ITEMS MARKED WITH AN "~" ARE REQUIRED TO BE PERFORMED IN THE SEQUENCE DESCRIBED, IF NOT PERFORMED IN THE SEQUENCE DESCRIBED, AN APPROPRIATE CUES OTHER THAN DESCRIBED IN THE BODY OF THE JPM MAY BE REQUIRED TO PROVIDE PROPER FEEDBACK.

RBS JOB PERFORMANCE MEASURE

If In-Plant or In the Control Room:

CAUTION THE OPERATOR NOT TO MANIPULATE THE CONTROLS, BUT MAKE CLEAR WHAT THEY WOULD DO IF THIS WERE NOT A SIMULATED SITUATION.

Read to the Operator:

I will explain the initial conditions, and provide initiating cues. I may provide cues during the performance of this JPM. I will ask follow-up questions as part of this JPM. When you complete the task successfully, the objective for this JPM will be satisfied. You should inform me when you have completed the task.

INITIAL CONDITIONS: The reactor has been shutdown and depressurized, failure of several systems has necessitated the use of SPC/ADAR for RPV injection, the 1BRHSA30 RHR-SPC ISOLATION VALVE LOGIC BYPASS, and 1ARHSA30 RHR-SPC ISOLATION VALVE LOGIC BYPASS HAVE ALREADY BEEN BYPASSED.

INITIATING CUE: The CAS has directed you to inject water into the RPV using the "A" SPC pump in accordance with EOP-005, Enclosure 35.

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
1. VERIFY RHR PUMP C IS NOT AVAILABLE AND SECURED.	RHR PUMP C IS TAGGED OUT, ALL 4 LIGHTS ARE EXTINGUISHED.	_____	
* 2. OPEN SPC-V3A, SPC PUMP A DISCHARGE VALVE.	CANDIDATE INDICATES THEY WOULD HAVE AN EQUIPMENT/BUILDING OPERATOR OPEN THIS VALVE.	_____	<p>NOTE TO EVALUATOR: THIS VALVE IS LOCATED IN THE AUX BUILDING, 70 FT. EL. "RACQUETBALL ROOM".</p> <p>CUE: THE SPC PUMP A DISCHARGE VALVE IS OPEN.</p>

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
3. VERIFY SPC-V3B, SPC PUMP B DISCHARGE VALVE IS CLOSED.	CANDIDATE INDICATES THEY WOULD HAVE AN EQUIPMENT/BUILDING OPERATOR VERIFY THIS VALVE CLOSED.	_____	<p>NOTE TO EVALUATOR: THIS VALVE IS LOCATED IN THE AUX BUILDING, 70 FT. EL. "RACQUETBALL ROOM".</p> <p>CUE: THE SPC PUMP B DISCHARGE VALVE IS CLOSED.</p>
* 4. OPEN RRS-V3022, RHR C TEST RETURN TO SP MANUAL ISOL VLV	CANDIDATE INDICATES THEY WOULD HAVE AN EQUIPMENT/BUILDING OPERATOR OPEN THIS VALVE.	_____	<p>NOTE TO EVALUATOR: THIS VALVE IS LOCATED IN THE AUX BUILDING, 95 FT. CRESCENT AREA.</p> <p>WHEN CONTACTED, THE SIMULATOR INSTRUCTOR WILL PERFORM THIS AS THE AUX BUILDING OPERATOR AND THEN INFORM THE CANDIDATE.</p>
5. VERIFY CLOSE E12 F021, RHR PUMP C TEST RTN TO SUP PL.	E12 F021, RHR PUMP C TEST RTN TO SUP PL. GREEN LIGHT ONLY.	_____	
* 6. CLOSE E12 F064C, RHR PUMP C MIN FLOW TO SUP PL.	E12 F064C, RHR PUMP C MIN FLOW TO SUP PL. GREEN LIGHT ONLY.	_____	
7. VERIFY E12 F105, RHR PUMP C SUP PL SUCTION VALVE IS OPEN.	E12 F105, RHR PUMP C SUP PL SUCTION VALVE. RED LIGHT ONLY.	_____	
* 8. OPEN RRS-ADV62, SPC SUCTION VALVE	RRS-ADV62, SPC SUCTION VALVE. RED LIGHT ONLY.	_____	
* 9. OPEN RRS-ADV63, SPC SUCTION VALVE	RRS-ADV63, SPC SUCTION VALVE. RED LIGHT ONLY.	_____	

RBS JOB PERFORMANCE MEASURE

PERFORMANCE STEP	STANDARD	S/U	COMMENTS
* 10. Open RRS-ROV64, SPC DISCH VALVE	RRS-ROV64, SPC DISCH VALVE RED LIGHT ONLY.	_____	
* 11. Open E12 FO42C, RRR PUMP C LPCI INJECT ISOL VALVE	E12 FO42C, RRR PUMP C LPCI INJECT ISOL VALVE RED LIGHT ONLY	_____	
* 12. START SPC-P1A	SPC-P1A RED AND WHIGHT LIGHTS.	_____	
13. CHECK OPEN SPC-ROV25, SPC PUMP MINIMUM FLOW VALVE, AS INDICATED BY FLOW INDICATION ON SPC-FI 32, SPC TOTAL FLOW.	FLOW INDICATED ON ON SPC-FI 32, SPC TOTAL FLOW	_____	
* 14. THROTTLE OPEN SPC-ROV20, SPC F-D BYP VALVE TO ACHIEVE INJECTION.	GREATER THAN 1500 GPM AND LESS THAN OR EQUAL TO 2250 GPM AS INDICATED ON SPC-FI 32, SPC TOTAL FLOW.	_____	

TERMINATION CRITERIA: SPC PUMP "A" INJECTING INTO THE RPV AT >1500 GPM.

RBS JOB PERFORMANCE MEASURE

VERIFICATION OF COMPLETION

OPERATOR: _____ SSN: _____ KCN: _____

EVALUATOR: _____

DATE: _____ [LICENSE (CIRCLE ONE): _____] RO / SRO No. of Attempts: _____

FOLLOW-UP QUESTIONS:

FOLLOW-UP QUESTION RESPONSE:

TIME TO COMPLETE JPM: _____ MINUTES

COMMENTS / FEEDBACK:

RESULT: SATISFACTORY / UNSATISFACTORY

NOTE: An "UNSATISFACTORY" REQUIRES COMMENTS AND REMEDIAL TRAINING.

EVALUATOR'S SIGNATURE: _____ DATE: _____

RBS JOB PERFORMANCE MEASURE

JPM TASK CONDITIONS/CUES

(OPERATOR COPY)

INITIAL CONDITIONS:

THE REACTOR HAS BEEN SHUTDOWN AND DEPRESSURIZED, FAILURE OF SEVERAL SYSTEMS HAS NECESSITATED THE USE OF SPC/ADRR FOR RPV INJECTION.

INITIATING CUES:

THE CRS HAS DIRECTED YOU TO INJECT WATER INTO THE RPV USING THE "A" SPC PUMP IN ACCORDANCE WITH EQP-0005, ENCLOSURE 35.

TERMINATION CRITERIA:

SPC PUMP "A" INJECTING INTO THE RPV AT >1500 GPM.