NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **PERFORM QUADRANT POWER TILT CALCULATION**

JPM NUMBER: **P015.005A.COT** **REV.** **1 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P015.005.COT/PERFORM QUADRANT POWER TILT CALCULATIONS

K/A NUMBERS: 2.1.7 (3.7/4.4), 2.1.10 (2.7/3.9), 2.1.25 (2.8/3.1)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [X] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [X]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by: _____
Instructor Date

Validated by: _____
Validation Instructor Date
(See JPM Validation Checklist, Attachment 1)

Approved by: _____
Training Supervisor Date

JPM P015.005A.COT, PERFORM QUADRANT POWER TILT CALCULATION, Rev. 1 Draft

JPM Number: P015.005A.COT

JPM Title: PERFORM QUADRANT POWER TILT CALCULATION

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

X Procedure adequately addresses task elements.

Enter Identifier here: **PBF-2512, "Quadrant Power Tilt Manual Calculation", Rev. 4**
AOP-6H "Quadrant Power Tilt", Rev. 3

____ Other document adequately describes necessary task elements.

Enter Identifier here: _____

X Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Unit 1 CO.
- Unit 1 was at 100% power when a single control rod dropped into the core.
- Actions of AOP-6A "Dropped Rod" and AOP-6H "Quadrant Power Tilt" are being performed in parallel.
- The plant has been stabilized.
- PPCS failed 5 minutes ago due to a hardware problem.

INITIATING CUES (IF APPLICABLE):

- The SRO has directed you to perform the actions of AOP-6H steps 3 through 6.

JPM PERFORMANCE INFORMATION

Required Materials: Standard Calculator
PBF-2512 "Quadrant Power Tilt Manual Calculation"
ROD 14 Calibration Currents
AOP-6H "Quadrant Power Tilt"

General References:

- Technical Specifications
- PBF-2512 "Quadrant Power Tilt Manual Calculation"
- AOP-6H "Quadrant Power Tilt"
- PBF-2512 Column 1 completed (required only if JPM is not administered in simulator)
- ROD 14 Calibration Currents (place in ROD book prior to JPM performance or provide to examinee).
- Completed PBF-2512

Task Standards: Quadrant power tilt calculation completed and determined to be greater than 1.02 and the required power reduction from Rated Thermal Power is determined to be 24-30%.

NOTE: A completed PBF-2512 is included with this JPM based on the initial conditions. Some differences may exist due to reading of the power range current meters. Minor meter reading deviations should not effect proper performance of the critical steps.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step:1 **Critical N (SEQ-1)**	Check Quadrant power tilt alarms operable: Check reactor power greater than or equal to 95%.
Standard:	Reactor power determined to be less than 95%.
Evaluator Cue:	Power is 85% (or as indicated on simulator).
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:2 **Critical N (SEQ-1)**	If PPCS tilt alarms are not operable, then check quadrant tilt within 12 hours out of service and every 12 hours thereafter.
Standard:	Manual QPT calculation initiated using PBF-2512.
Evaluator Cue:	Inform examinee that the QPTCALC.XLS file is corrupted and a manual calculation will be required using PBF-2512. If administering in the simulator, provide blank copy of PBF-2512 to examinee.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:3 **Critical N (SEQ-1)**	Record power range meter readings from the 0-500 microamp scale (check range set at 0.5 milliamps)
Standard:	Detector currents obtained from each Power Range NI cabinet drawer. These values are recorded in Column 1 of PBF-2512.
Evaluator Cue:	If JPM is **not** to be administered in simulator, then provide trainee with appropriate PBF-2512 (column 1 filled out).
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:4 **Critical N (SEQ-2)**	Transfer channel calibration current from ROD 14
Standard:	Power Range calibration currents are obtained from ROD 14. These values are recorded on PBF-2512 in Column 2.
Evaluator Cue:	If JPM is **not** to be administered in simulator, then provide trainee with appropriate ROD 14.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:5 **Critical N (SEQ-3)**	Calculate power for each channel (column 1 ÷ column 2)
Standard:	Calculate power for each channel and record the results in column 3 of PBF-2512.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:6 **Critical N (SEQ-4)**	Calculate average power [(sum of column 3) ÷ 4]
Standard:	Calculate average power and record the result in column 4 of PBF-2512.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:7 **Critical N (SEQ-5)**	Calculate the upper and lower tilt ratio (column 3 ÷ column 4)
Standard:	Calculate upper and lower tilt ratio and record the results in column QPTR of PBF-2512.
Evaluator Note:	**Following completion of QPTR calculations, the examiner should refocus the examinee (as necessary) on the steps required in AOP-6H based on the results of PBF-2512.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:8 **Critical N (SEQ-6)**	Check all four power range channels operable.
Standard:	All four power range channels determined to be operable based on available indications.
Evaluator Cue:	If inquiry to shift supervision is made regarding power range operability, indicate to examinee that there are no operability concerns with the NIs.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:9 **Critical Y (SEQ-6)**	Determine if QPT is greater than 1.02
Standard:	Examinee determines that QPT is greater than 1.02
Evaluator Note:	**QPT is exceeded in channels 42A, 44A, 42B, and 44B.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:10 **Critical Y (SEQ-7)**	Determine required power reduction from Rated Thermal Power.
Standard:	Examinee determines a power reduction in the range of 24-30% is required from Rated Thermal Power.
Evaluator Cue:	If necessary, the examinee should be specifically asked the total power reduction required from Rated Thermal Power.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **This JPM is Complete.**

Stop Time: _____

SIMULATOR SET UP:

Simulator Setup Instructions:

- NOTE: If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.

- Initialize to Exam Pack “Dropped Rod (G3)” IC-101
- Verify NI Current readings are consistent with completed PBF-2512
- Verify ROD 14, Power Range Detector Calibration Currents, in the ROD book agrees with JPM data.
- Disable Unit 1 PPCS monitors as necessary

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 CO.
- Unit 1 was at 100% power when a single control rod dropped into the core.
- Actions of AOP-6A “Dropped Rod” and AOP-6H “Quadrant Power Tilt” are being performed in parallel.
- The plant has been stabilized.
- PPCS failed 5 minutes ago due to a hardware problem.

INITIATING CUES (IF APPLICABLE):

- The SRO has directed you to perform the actions of AOP-6H steps 3 through 6.

ATTACHMENT 1
JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

Historical Record: (Optional)

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **PERFORM CONTROL ROOM REACTOR STARTUP CHECKLIST**

JPM NUMBER: **P001.001.COT** **REV.** **0 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P001.001.COT / Perform Mode Change Checklist for Reactor Startup

K/A NUMBERS: 2.1.2 (3.0/4.0) 2.2.1 (3.7/3.6)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path / Faulted: YES

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **P001.001.COT**

JPM Title: **PERFORM CONTROL ROOM REACTOR STARTUP CHECKLIST**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

X Procedure adequately addresses task elements.

Enter Identifier here: **PBF-2140, Control Room Reactor Startup Checklist Rev. 1**

___ Other document adequately describes necessary task elements.

Enter Identifier here: _____

X Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, “acknowledge.” All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Unit 1 BOP.
- A Reactor Startup is about to be commenced on Unit 1.
- CL-2E, Mode 3 to Mode 2 checklist has been completed
- Unit 1 Boron Concentration is 1200 PPM.
- Unit 1 Letdown Gas stripper is online

INITIATING CUES (IF APPLICABLE):

- You have been assigned to perform Control Room Portion of Section 1.0 of PBF-2140, Control Room Reactor Startup Checklist.

JPM PERFORMANCE INFORMATION

Required Materials: Form PBF-2140, Control Room Reactor Startup Checklist
Blender 4.0 U1

General References: OP-1B, Reactor Startup

Task Standards: Four out of five items which are out of required position are identified and recorded on PBF-2140, Control Room Reactor Startup Checklist.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

NOTE: Examinee may choose to complete the entire checklist prior to reporting out of position equipment. If this is the case, review the checklist with the examinee and ensure all out-of-position equipment is noted as listed in this JPM.

Start Time: _____

Performance Step: 1 **Critical Y (SEQ-1)**	Identify PZR Backup Heater Groups A and B as being out of required position.
Standard:	Pressurizer Backup Heater Groups A and B identified as ON. Position of switches is documented on PBF-2140.
Evaluator Note:	**Per the NOTE at the top of PBF-2140, the checklist does NOT authorize repositioning of equipment.**
Evaluator Cue:	If examinee notifies supervision of heater switches in ON, acknowledge switch position. Inform examinee that current PZR heater alignment has been requested by shift management.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical Y (SEQ-1)**	Identify both running charging pumps in MANUAL.
Standard:	1P-2A and 1P-2C identified as both pumps being in manual control and position recorded on PBF-2140.
Evaluator Note:	**Per the NOTE at the top of PBF-2140, the checklist does NOT authorize repositioning of equipment.**
Evaluator Cue:	If examinee notifies supervision that one pump should be in AUTO, inform examinee that charging pump alignment has been requested by shift management.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical Y (SEQ-1)**	Identify discrepancy between Rx Makeup Water Flow controller setting and Boric Acid Flow controller setting.
Standard:	Identify that the settings of the RMUW flow controller and Boric Acid flow controller are not correct when compared with one another. Per Blender 4.0 U1, the expected settings ratio would be 4.46 / 1 (Rx Makeup / Boric Acid).
Evaluator Note:	**Per the NOTE at the top of PBF-2140, the checklist does NOT authorize repositioning of equipment.**
Evaluator Cue:	If examinee notifies supervision of the settings, direct examinee to establish desired controller settings for auto-makeup
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical Y (SEQ-1)**	Identify Reactor Makeup Red light is not ON. (Auto Makeup not armed)
Standard:	Identify that Red Light is not lit for Reactor Makeup Switch.

Evaluator Note:	**Per the NOTE at the top of PBF-2140, the checklist does NOT authorize repositioning of equipment.**
Evaluator Cue:	If examinee notifies supervision of the indication, direct examinee to establish normal conditions for auto-makeup.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical Y (SEQ-1)**	Identify PC-2273 LP FWH Bypass Controller, set improperly for given Feed Pump suction pressure.
Standard:	Identify that PC-2273 is set at 10 PSI below Feed Pump Suction Pressure, vice the required 25 PSI.
Evaluator Note:	**Feed pump suction pressure is indicated on 1 PI-2273, 1P-28 A and B S/G Feed pump suction pressure located on 1C-03 vertical section.** **Per the NOTE at the top of PBF-2140, the checklist does NOT authorize repositioning of equipment.**
Evaluator Cue:	If examinee notifies supervision of incorrect setting, direct examinee to establish a normal setting for PC-2273 LP FWH bypass controller.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Evaluator Note: **When Control Room portion of Section 1.0 is completed, JPM may be terminated. Local check of AF-4000 and AF-4001, Turbine Driven Aux Feed Pump discharge throttle valves, is not required.**

Terminating Cues: **The evolution is complete.**

Stop Time: _____

SIMULATOR SET UP:

Simulator Setup Instructions:

- Snap into Reactor Startup IC (IC-102) or specific IC created for this JPM.
- Verify that conditions of the simulator match required positions of PBF-2140 with the following exceptions:
  - A and B PZR Backup heaters ON
  - 1P-2A and 1P-2C in manual
  - Boric Acid Flow controller does not agree with RMUW flow controller for the given boron concentration
  - Reactor Makeup not armed
  - LP FWH Bypass pressure controller 10 psi less than feedwater pressure.

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 BOP.
- A Reactor Startup is about to be commenced on Unit 1.
- CL-2E, Mode 3 to Mode 2 checklist has been completed
- Unit 1 Boron Concentration is 1200 PPM.
- Unit 1 Letdown Gas stripper is online

INITIATING CUES (IF APPLICABLE):

- You have been assigned to perform Control Room Portion of Section 1.0 of PBF-2140, Control Room Reactor Startup Checklist.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS		YES	NO	N/A
1.	Are all items on the signature page filled in correctly?	☐	☐	☐
2.	Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3.	Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4.	Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5.	Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6.	Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7.	If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8.	Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9.	Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10.	Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **TEST HIGH FLUX AT SHUTDOWN ALARM**

JPM NUMBER: **P015.004.COT** **REV.** **0 Draft**

RELATED PRA INFORMATION: None

TASK NUMBER(S) / TASK TITLE(S): P015.004.COT/ Monitor the Nuclear Instrument System for Proper Operation

K/A NUMBERS: 2.2.30 (3.5/3.3)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **P015.004.COT**

JPM Title: **TEST HIGH FLUX AT SHUTDOWN ALARM**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Delete this table if not required

X Procedure adequately addresses task elements.
Enter Identifier here: **RP-1A, Preparation for Refueling, Att. D. Rev. 67**

___ Other document adequately describes necessary task elements.
Enter Identifier here: _____

X Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Unit 1 BOP
- Unit 1 has just been drained down in preparation for removing the Reactor Vessel Head.

INITIATING CUES (IF APPLICABLE):

- The crew is performing RP-1A, Preparation for Refueling
- Both Source Range Detectors N-31 and N-32 are in service
- The SRO has requested that you perform Attachment D, Test the High Flux at Shutdown Alarm, to support the completion of Attachment A, Reactor Vessel Head Lift Checkoff Data Sheet.

JPM PERFORMANCE INFORMATION

Required Materials: RP-1A, Preparation for Refueling, Attachment D

General References: RP-1A, Preparation for Refueling
RP-1A, Preparation for Refueling, Attachment A, Reactor Vessel Head Lift Check off Data Sheet

Task Standards: High Flux at Shutdown Alarm tested satisfactorily

NOTE:When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE:Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step: 1 **Critical Y (SEQ-1)**	Test N-31 if in service (otherwise N/A) On N-31 place the "Level Trip" switch to bypass, to enable the "Operator Select" switch.
Standard:	Level Trip switch placed in bypass.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical Y (SEQ-2)**	On N-31 position the "Operator Select" switch to the "Level Adjust" position.
Standard:	Operator Select switch placed in the "Level Adjust" position.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical Y (SEQ-3)**	Unlock and increase level adjust potentiometer to increase counts to bring in alarm. Verify alarm in both control and containment.
Standard:	Level adjust potentiometer adjusted up to increase counts **AND** alarm verified in both control and containment.
Evaluator Note:	**Operator may request an auxiliary operator to enter containment to verify the alarm. There will be other personnel in containment that could be contacted.**
Evaluator Cue:	When Containment personnel contacted, inform examinee that alarm has been received in containment.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical Y (SEQ-4)**	Reposition level adjust back to zero and lock. Verify alarms clear.
Standard:	Level adjust potentiometer adjusted back to zero. **AND** Alarms verified clear.
Evaluator Note:	**Operator may request an auxiliary operator to enter containment to verify the alarm is clear. There will be other personnel in containment that could be contacted.**
Evaluator Cue:	When containment personnel are contacted, report alarm is clear.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical Y (SEQ-5)**	Position "Operator Selector" switch to Normal.
Standard:	Operator Selector switch returned to normal.

Performance: **SATISFACTORY** ☐ **UNSATISFACTORY** ☐

Comments: _____

Performance Step: 6 Position "Level Trip" switch to Normal.
Critical Y (SEQ-6)

Standard: Level Trip switch returned to normal.

Performance: **SATISFACTORY** ☐ **UNSATISFACTORY** ☐

Comments: _____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

SIMULATOR SET UP:

Simulator Setup Instructions:

- Snap into a drained down IC set (IC-11)
- Ensure plant conditions are stable
  - Vessel Level
  - Pressure
  - RHR Temperature

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 BOP
- Unit 1 has just been drained down in preparation for removing the Reactor Vessel Head.

INITIATING CUES (IF APPLICABLE):

- The crew is performing RP-1A, Preparation for Refueling
- Both Source Range Detectors N-31 and N-32 are in service
- The SRO has requested that you perform Attachment D, Test the High Flux at Shutdown Alarm, to support the completion of Attachment A, Reactor Vessel Head Lift Check off Data Sheet.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **OPERATE TSC VENTILATION SYSTEM**

JPM NUMBER: **JPM P088.008AOT** **REV.** **6 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P088.008.AOT / Operate TSC Ventilation System

K/A NUMBERS: 2.3.1 (2.6/3.0), 2.3.10 (2.9/3.3)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [X] Perform: [ ]

EVALUATION LOCATION: In-Plant: [X] Control Room: [ ]

Simulator: [ ] Other: [ ]

Lab: [ ]

Time for Completion: 12 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: _____

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **JPM P088.008AOT**

JPM Title: **Operate TSC Ventilation System**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

_X_ Procedure adequately addresses task elements.
Enter Identifier here: **EPIP 4.1, Attachment B, Rev. 37**

____ Other document adequately describes necessary task elements.
Enter Identifier here: _____

_X_ Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, “acknowledge.” All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- A site emergency has been declared at PBNP.
- You are on the relief crew and have reported to the Operations Support Center (OSC) for further instructions.
- A radiation release at PBNP is imminent.
- Wind speed is 10 mph from the north (towards Two Rivers).

INITIATING CUES (IF APPLICABLE):

- The Operations Leader has directed that you activate TSC emergency ventilation per EPIP 4.1, "Technical Support Center (TSC) Activation and Evacuation", Attachment B.

JPM PERFORMANCE INFORMATION

Required Materials: EPIP 4.1, "Technical Support Center (TSC) Activation and Evacuation", Attachments A and B

General References: EPIP 4.1, "Technical Support Center (TSC) Activation and Evacuation"

Task Standards: Shift TSC heating, ventilation and air conditioning from normal to emergency mode.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step: 1 **Critical N (SEQ-1)**	Assure that air flow is from the TSC to the turbine building. Check DPI-4713A on the annunciator panel (El. 18.5') to verify that the TSC is pressurized relative to the turbine building.
Standard:	The examinee assures that air flow is from the TSC to the turbine building. DPI-4713A on the annunciator panel (El. 18.5') is checked to verify that the TSC is NOT pressurized relative to the turbine building; DPI-4713A indicates positive pressure.
Evaluator Cue:	DPI-4713A indicates 0.1 inches of water on the turbine building side.
Evaluator Note:	**DPI-4713A needle points to the area with the higher pressure.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical N (SEQ-1)**	If not, coordinate manipulation of the turbine building supply fans, dampers, and exhaust fans with the Operations Coordinator to achieve air flow from the TSC at Door 116.
Standard:	The examinee requests the Operations Coordinator to adjust air flow from the TSC at Door 116 per Step 2.2 of EPIP 4.1, "Technical Support Center (TSC) Activation and Evacuation", Attachment B.
Evaluator Cue:	The Operations Coordinator acknowledges your request and reports when the necessary adjustments have been completed.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical N (SEQ-1)**	To shift the heating, ventilating, and air conditioning system from the normal to emergency mode, locate panel M-1.
Standard:	The examinee locates panel M-1 per Figure 4 of EPIP 4.1, "Technical Support Center (TSC) Activation and Evacuation", Attachment B.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical Y (SEQ-2)**	Turn the "auto/unocc/occupied" switch on panel M-1 to the "occupied" position.
Standard:	The examinee positions the "auto/unocc/occupied" switch on panel M-1 to the "occupied" position.
Evaluator Cue:	The "auto/unocc/occupied" switch on panel M-1 is in the "occupied" position.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical Y (SEQ-2)**	Turn the "normal/emergency" switch on panel M-1 to the "emergency" position.
Standard:	The examinee positions the "normal/emergency" switch on panel M-1 to the "emergency" (#2) position.
Evaluator Cue:	The "normal/emergency" switch on panel M-1 is in the "emergency" (#2) position.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 6 **Critical Y (SEQ-2)**	Select the north or south (east) emergency intake depending on meteorological conditions. Select the upwind intake duct.
Standard:	The examinee selects the upwind (North) intake duct, the toggle switch is positioned to the (North) right position.
Evaluator Cue:	The South/North emergency intake toggle switch is in the (North) right position.
Evaluator Note:	**Initial Conditions – Wind speed is 10 mph from the North (towards Two Rivers).**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical Y (SEQ-3)**	Select "hand" on compressor K22 located on the west wall of El. 18.5' of the TSC building (see Figure 4).
Standard:	The examinee positions the compressor K22 switch to the "hand" position.
Evaluator Cue:	The switch for compressor K22 is in the "hand" position.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 8 **Critical Y (SEQ-3)**	Turn the air handling unit (W89) disconnect to the "on" position in the TSC room north wall (see Attachment A).
Standard:	The examinee positions the air handling unit (W89) disconnect to the "on" position.
Evaluator Cue:	The air handling unit (W89) disconnect is in the "on" position.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 9 **Critical Y (SEQ-4)**	Push "start" pushbutton.
Standard:	The examinee depresses the "start" pushbutton.
Evaluator Cue:	The "start" pushbutton is depressed.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 10 **Critical N (SEQ-5)**	Inform the Rad/Chem Coordinator that the TSC emergency ventilation system has been activated in accordance with EPIP 4.1, "Technical Support Center (TSC) Activation and Evacuation", Attachment B.
Standard:	The examinee informs the Rad/Chem Coordinator that the TSC emergency ventilation system has been activated in accordance with EPIP 4.1, "Technical Support Center (TSC) Activation and Evacuation", Attachment B.
Evaluator Cue:	The Rad/Chem Coordinator acknowledges your report.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

TURNOVER SHEET

INITIAL CONDITIONS:

- A site emergency has been declared at PBNP.
- You are on the relief crew and have reported to the Operations Support Center (OSC) for further instructions.
- A radiation release at PBNP is imminent.
- Wind speed is 10 mph from the north (towards Two Rivers).

INITIATING CUES (IF APPLICABLE):

- The Operations Leader has directed that you activate TSC emergency ventilation per EPIP 4.1, "Technical Support Center (TSC) Activation and Evacuation", Attachment B.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **REVIEW RELEASE PERMIT**

JPM NUMBER: **P000.011.SRO** **REV.** **1 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P000.011.SRO/REVIEW RELEASE PERMIT

K/A NUMBERS: 2.3.6 (3.1) 2.3.8 (3.2) 2.3.9 (3.4)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [X] Perform: [ ]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [X]

Simulator: [ ] Other: (Classroom) [X]

Lab: [ ]

Time for Completion: 12 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: P000.011.SRO

JPM Title: REVIEW RELEASE PERMIT

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

_X_ Procedure adequately addresses task elements.
Enter Identifier here: OP-9C, Containment Venting and Purging, Rev. 54

____ Other document adequately describes necessary task elements.
Enter Identifier here: _____

_X_ Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, “acknowledge.” All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- Both units @ 100% power.
- Unit 1 started a containment forced vent yesterday
- The vent was interrupted this morning at 0800 due to RP needing to perform RMS trip testing which is expected to last approximately 30 minutes.

INITIATING CUES (IF APPLICABLE):

- You are the day shift SRO today
- It is currently 0835 and RP has completed their trip testing..
- All RMS monitors have been in service for the past hour.
- The SM has directed you to review the CAMP 031 release permits associated with the interrupted vent and OP-9C (both provided) prior to restarting the forced vent on Unit 1 containment at Step 5.1.4e of OP-9C.

Additionally, the following data is provided in OP-9C

RAD MONITOR	SS READINGS(initial/current)	CHECK SOURCE READINGS(current)
1RE-211 (Unit 1 Cont Air Part)	2.10 E-5 / 2.57 E-5	3.20 E-4
1RE-212 (Unit 1 Cont Gas)	9.67 E-6 / 1.25 E-5	2.80 E-4

JPM PERFORMANCE INFORMATION

Required Materials:	Calculator OP-9C, "Containment Venting and Purging" with RMS values recorded. Release Permits, prepared from CAMP 031.
General References:	CAMP 031, "Preparation of Batch Liquid and Gaseous Effluent Permits Using Retscode Software"
Task Standards:	Determine whether containment forced vent can be continued in accordance with OP-9C

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step:1 **Critical N (SEQ-1)**	Review OP-9C and release permits provided.
Standard:	Examinee reviews previous actions taken per OP-9C and verifies adequacy of release permits.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:2 **Critical Y (SEQ-1)**	Compare RE-211 and RE-212 readings from 5.1.4.a with those from 5.1.1.i
Standard:	Recognize that RE-212 value is > 125% of initial value
Evaluator Note:	**1RE-212 current steady state value exceeds 125% of its initial value per Step 5.1.4e of OP-9C.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:3 **Critical Y (SEQ-2)**	Terminate the vent per section 5.1.2 and N/A steps 5.1.3g through 5.1.3.k
Standard:	Take action to terminate the containment forced vent by directing the CO to perform step 5.1.2 and marking steps 5.1.4.g-k N/A OR Informing the SM of the need to terminate the vent.
Evaluator Note:	**If the examinee does not identify readings >125%, he will:** – **Direct the AO/RP to start the air sampler pump and record sampler flow rate on permit** – **Direct the RO to open 1RM-3200N, Forced Vent Pump Suction.** – **Direct the RO to start the forced vent blower** – **Direct the RO to record the vent flow rate on the forced vent permit** **At that point the JPM can be terminated**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:4 **Critical N (SEQ-2)**	Inform SM of the problem identified above.
Standard:	SM informed of the need to terminate the containment forced vent.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

TURNOVER SHEET

INITIAL CONDITIONS:

- Both units @ 100% power.
- Unit 1 started a containment forced vent yesterday
- The vent was interrupted this morning at 0800 due to RP needing to perform RMS trip testing which is expected to last approximately 30 minutes.

INITIATING CUES (IF APPLICABLE):

- You are the day shift SRO today
- It is currently 0835 and RP has completed their trip testing..
- All RMS monitors have been in service for the past hour.
- The SM has directed you to review the CAMP 031 release permits associated with the interrupted vent and OP-9C (both provided) prior to restarting the forced vent on Unit 1 containment at Step 5.1.4e of OP-9C.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date

NMC Committed to Nuclear Excellence	JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **CLASSIFY AN EMERGENCY EVENT IAW EPIP 1.2**

JPM NUMBER: **P028.001a.EMR** **REV.** **2 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S)/ TASK TITLE(S): **P028.001.EMR / CLASSIFY AN EMERGENCY EVENT IAW EPIP 1.2**

K/A NUMBERS: 2.4.40 (4.0) 2.4.41 (4.1)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [X] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [X]

Simulator: [X] Other: (Classroom) [X]

Lab: [ ]

Time for Completion: 30 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO

Additional signatures may be added as needed.

Developed by: _____
Instructor Date

Validated by: _____
Validation Instructor Date
(See JPM Validation Checklist, Attachment 1)

Approved by: _____
Training Supervisor Date

JPM Number: **P028.001a.EMR**

JPM Title: **CLASSIFY AN EMERGENCY EVENT IAW EPIP 1.2**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Delete this table if not required

X Procedure adequately addresses task elements.
Enter Identifier here: **EPIP 1.2, "Emergency Classification", Rev. 45**

____ Other document adequately describes necessary task elements.
Enter Identifier here: _____

X Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, “acknowledge.” All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Unit 1 SRO
- Both Units were operating at 100% power with a severe thunderstorm warning in effect. Unit 2 had indications of a small Steam Generator Tube Leak (’A’ SG) with leakage estimated at 50 gallons per day.
- Electrical perturbations from multiple lightning strikes caused a total loss of off-site power to Unit 2 and Unit 2 reactor tripped due to a unit lockout.
- All plant systems responded and are functioning per design.
- The loss of off-site power occurred 25 minutes ago and has not been restored.
- Current wind speed is 25 MPH from the west (all met towers).
- In response to the above events, the Shift Manager has declared an UNUSUAL EVENT.

INITIATING CUES :

- Based solely on the initial conditions given above and using the guidance of EPIP 1.2, you are to complete the following action:

  1.Verify the initial classification made by the Shift Manager and, if necessary, re-classify the event.

JPM PERFORMANCE INFORMATION

Required Materials:	EPIP 1.2, Emergency Classification EPIP 1.2.1, Emergency Action Level Technical Basis
General References:	EPIP 1.2, Emergency Classification EPIP 1.2.1, Emergency Action Level Technical Basis
Task Standards:	Complete emergency plan classification of event in progress.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step: 1 **Critical Y (SEQ-1)**	Verify/Re-classify the event using EPIP 1.2 based only on the initial conditions given.
Standard:	Examinee researches initial conditions and references EPIP 1.2 and 1.2.1 and determines that the Shift Manager was correct in his assessment and initial notification. An Unusual Event exists on SU1.1, Loss of power to or from the 2X04 transformer that results in a loss of all offsite power to both 2A05 and 2A06 for greater than 15 minutes AND Both safety-related 4160 VAC buses 2A05 and 2A06 power from emergency generators.
Evaluator Cue:	Upon completion of this step, read the following to the examinee: The Unit 2 CO reports to the SRO that Unit 2 Safety Injection has actuated and the 'A' Steam Generator tube leakage has increased to 450 gpm. In addition, the PAB AO reports the 2MS-2010, 'A' Steam Generator Safety Valve is stuck open. Off-site power has not been restored. Based on this additional information, re-classify the event, if necessary, in accordance with EPIP 1.2, Section 5.1.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical Y (SEQ-2)**	Using EPIP 1.2, and initial conditions given, reclassify the event.
Standard:	Examinee must recognize a SITE AREA EMERGENCY is now required to be declared per FS1 based on RCS Barrier Loss EAL #3 AND Containment Barrier Loss EAL #4. The classification must be completed within 15 minutes of completion of the reading of the evaluator cue in JPM step 1.
Evaluator Note:	**When examinee indicates his answer, the JPM is complete.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 SRO
- Both Units were operating at 100% power with a severe thunderstorm warning in effect. Unit 2 had indications of a small Steam Generator Tube Leak ('A' SG) with leakage estimated at 50 gallons per day.
- Electrical perturbations from multiple lightning strikes caused a total loss of off-site power to Unit 2 and Unit 2 reactor tripped due to a unit lockout.
- All plant systems responded and are functioning per design.
- The loss of off-site power occurred 25 minutes ago and has not been restored.
- Current wind speed is 25 MPH from the west (all met towers).
- In response to the above events, the Shift Manager has declared an UNUSUAL EVENT.

INITIATING CUES :

- Based solely on the initial conditions given above and using the guidance of EPIP 1.2, you are to complete the following action:

  1.Verify the initial classification made by the Shift Manager and, if necessary, re-classify the event.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____

Validation Personnel /Date Validation Personnel/Date

_____ _____

Validation Personnel /Date Validation Personnel/Date

_____ _____

Validation Personnel /Date Validation Personnel/Date

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **PERFORM ROD EXERCISE TEST**

JPM NUMBER: **P001.020.COT** **REV.** **0 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P001.020.COT/PERFORM CONTROL ROD EXERCISES

K/A NUMBERS: 001.K4.02 (3.8/3.8), 001.A3.05 (3.5/3.5), 001.A4.03 (4.0/3.7)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path / Faulted: YES

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **P001.020.COT**

JPM Title: **PERFORM ROD EXERCISE TEST**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Delete this table if not required

X Procedure adequately addresses task elements.
Enter Identifier here: **TS-5, Rod Exercise Test Unit 1, Rev. 30**

____ Other document adequately describes necessary task elements.
Enter Identifier here: _____

X Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

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I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Unit 1 CO.
- Unit 1 is at 100% power, steady state Xenon.

INITIATING CUES (IF APPLICABLE):

- The SRO has directed you to perform TS-5, "Rod Exercise Test Unit 1." The Pre-job brief has been completed.
- An AO is standing by in the Rod Drive MG Set Room to assist in the performance of the test.

JPM PERFORMANCE INFORMATION

Required Materials:	TS-5, Rod Exercise Test Unit 1 REI 7.0, Control Rod Position Determination
General References:	TS-5, Rod Exercise Test Unit 1 REI 7.0, Control Rod Position Determination
Task Standards:	Bank D Rods have been exercised and returned to their original position.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step:1 **Critical N (SEQ-1)**	Review Precautions/Limitations and Initial Conditions
Standard:	The examinee reviews TS-5, Rod Exercise Test Precautions and Limitations and Initial Conditions.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:2 **Critical N (SEQ-1)**	Record the following indications: RDC-LOGIC Cabinet (Key #21): -Bank Overlap Counter reading
Standard:	Examinee contacts Unit 1 Turbine Hall Operator and obtains the Bank Overlap Counter Reading.
Evaluator Note:	**Counter Reading is in the rod control cabinet in the Rod Drive MG set Room.**
Evaluator Cue:	AO reports that the Bank Overlap Counter is reading 596.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical N (SEQ-1)**	Status of the Group Select Lights for the following power cabinets: -1AC – Group Select Light “C” -2AC – Group Select Light “C” -1BD – Group Select Light “B”
Standard:	Examinee contacts the U1 TH Operator an obtains the status of the lights.
Evaluator Note:	**Light status is found on the power cabinets in the RD MG Set Room**
Evaluator Cue:	AO Reports “C” lights lit for 1AC and 2AC and “B” light lit for 1BD.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical Y* (SEQ-1)**	1C04, Rod Bank Group (Demand) counters: -Control Bank A Group 1 -Etc.
Standard:	The examinee correctly records Control and Shutdown Bank Group Demand counter readings.
Evaluator Note:	***All Bank Demand counters should indicate 228 steps except Bank D which should indicate 220 steps. Since only Bank D rods are being exercised for this JPM, only the Bank D readings are critical.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical N (SEQ-1)**	1C-120A, RPI #1, Bank Position Display -Bank A -Bank B -Bank C -Bank D
Standard:	The examinee correctly records bank positions on 1C-120A.
Evaluator Note:	**Bank Positions are indicated behind the Main Control Boards on 1C-120A. Examinee may ask permission to go behind the boards. Indicate that the 3rd license will have responsibility for the Unit while the examinee retrieves the readings.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 6 **Critical N (SEQ-2)**	Compare the Bank Overlap Counter readings to Control Bank position (Step Counters) in REI 7.0, Control Rod Position Determination.
Standard:	The examinee obtains a copy of REI 7.0 and compares the Control Bank position with the Bank Overlap Counter and determines whether the readings agree.
Evaluator Note:	**The examinee should determine that the Control Bank position and Bank Overlap Counter do NOT agree. With Control Bank D at 220 steps, the Bank Overlap Counter should read 595.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical N (SEQ-2)**	If the Control Bank Position AND Bank Overlap Counter reading do not agree, then perform Attachment A.
Standard:	The examinee determines the readings do not agree and goes to attachment A.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 8 **Critical N (SEQ-3)**	Place Rod control selector to Manual
Standard:	The examinee places Rod control selector switch to the Manual position.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 9 **Critical N (SEQ-4)**	Step Control Bank D out 1 step from its current position.
Standard:	The examinee steps Control Bank D out 1 step.
Evaluator Note:	**The examinee should monitor primary plant and rod control parameters during the rod movement.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 10 **Critical N (SEQ-5)**	Bump step Control Bank D in one step.
Standard:	The examinee bumps Control Bank D in one step.
Evaluator Note:	**The examinee should monitor primary plant and rod control parameters during the rod movement.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 11 **Critical N (SEQ-6)**	Check card A105 has the BOTTOM LIGHT ILLUMINATED (top row, 3rd card from the left in the Rod Control Logic Cabined directly above the Bank Overlap Counter).
Standard:	The examinee contacts the Auxiliary Operator in the Rod Drive Room and obtains status of card A105 bottom light.
Evaluator Note:	**Based on the report from the AO, steps 5.0 and 6.0 of Attachment A will be N/A**
Evaluator Cue:	The AO reports card A105 has the bottom light illuminated.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 12 **Critical N (SEQ-6)**	Compare the Bank D Demand Position (Step Counters) to the Bank Overlap Counter.
Standard:	The examinee contacts the AO for the Bank Overlap Counter reading and compares the Step Counter for Bank D to the obtained Bank Overlap Counter reading.
Evaluator Cue:	AO reports the Bank Overlap Counter reads 596.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 13 **Critical Y (SEQ-7)**	IF the Control Bank D Position (Step Counters) and the Bank Overlap Counter do not agree, THEN adjust the Bank Overlap Counter at RDC Logic Cabinet by depressing the +1 or –1 button as necessary until the proper value correlating to the Control Rod Bank D Position (Step Counters).
Standard:	The examinee directs the AO to depress the -1 button one time to make Bank D Step Counter and Bank Overlap Counter Agree.
Evaluator Cue:	The AO reports depressing the -1 button one time and the Bank Overlap Counter now reads 595.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 14 **Critical N (SEQ-7)**	Return the Control Rod selector switch to AUTO.
Standard:	The examinee places Control Rod selector to auto.
Evaluator Note:	**If examinee asks for an Independent Verification of this step, inform the examinee that the 3rd License will perform the IV and that the examinee may continue.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 15 **Critical N (SEQ-7)**	If printed PPCS data is required, then obtain a screen print of PPCS display page 2121 prior to and following movement of each rod group.
Standard:	The examinee requests whether PPCS printed data is required.
Evaluator Note:	**Examinee may wish to print the data, inform them that it is not required.**
Evaluator Cue:	Printed PPCS data is not required.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 16 **Critical Y (SEQ-8)**	IF Control Bank D is not fully inserted, THEN perform the following exercise test: Place the Control Rod Bank Selector switch to the CBD position.
Standard:	The examinee places the Control Rod Bank Selector switch to the CBD position.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 17 **Critical Y (SEQ-9)**	Insert OR Withdraw Control Bank D at least 10 steps but no more than 20 steps while observing movement on individual Control Bank D rods.
Standard:	The examinee inserts Control Bank D at least 10 but not more than 20 steps.
Evaluator Note:	**The examinee should monitor primary plant and rod control parameters during the rod movement. The examinee must recognize that there is not enough "room" to withdraw the rods 10 steps and must therefore insert the rods the required distance**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 18 **Critical Y (SEQ-10)**	Withdraw OR insert Control Bank D to the position recorded in Step 5.1.3
Standard:	The examinee withdraws Control Bank D to its original position recorded in Step 5.1.3.
Evaluator Note:	**The examinee should monitor primary plant and rod control parameters during the rod movement.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 19 **Critical Y (SEQ-11)**	Withdraw Control Bank D one step.
Standard:	The examinee withdraws Control Bank D one step.
Evaluator Note:	**The examinee should monitor primary plant and rod control parameters during the rod movement.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 20 **Critical Y (SEQ-12)**	Insert Control Bank D one step.
Standard:	The examinee inserts Control Bank D one step.
Evaluator Note:	**The examinee should monitor primary plant and rod control parameters during the rod movement.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 21 **Critical N (SEQ-12)**	Ensure Control Bank D is in the position recorded in Step 5.1.3.
Standard:	The examinee ensures the Control Bank D Group Demand Counter reading matches the number obtained in step 5.1.3.
Evaluator Note:	**CB D Demand Counter should read 220. If examinee asks for an Independent Verification of this step, inform the examinee that the 3rd License will perform the IV**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

SIMULATOR SET UP:

Simulator Setup Instructions:

- Snap Simulator into IC-2
- Verify Rod Counter reading are at 228 for all banks except CB D which should be set to 220.

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 CO.
- Unit 1 is at 100% power, steady state Xenon.

INITIATING CUES (IF APPLICABLE):

- The SRO has directed you to perform TS-5, “Rod Exercise Test”, the Pre-job brief has been completed.
- An AO is standing by in the Rod Drive MG Set Room to assist in the performance of the test.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS		YES	NO	N/A
1.	Are all items on the signature page filled in correctly?	☐	☐	☐
2.	Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3.	Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4.	Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5.	Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6.	Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7.	If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8.	Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9.	Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10.	Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **PERFORM EXCESS LETDOWN TO THE VCT**

JPM NUMBER: **JPM P004.013.COT** **REV.** **3 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P004.013COT / Perform Excess Letdown To The VCT

K/A NUMBERS: 004 A4.06 (3.6/3.1), 004.A4.05 (3.6/3.1)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **JPM P004.013COT**

JPM Title: **Perform Excess Letdown To VCT**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

X Procedure adequately addresses task elements.

Enter Identifier here: **OP-5E, Establishing And Securing Excess Letdown, Rev 7.**

____ Other document adequately describes necessary task elements.

Enter Identifier here: _____

X Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

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After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- Unit 1 is operating at 99% power.
- You are the U1 BOP
- Normal letdown is in service.
- CVCS is aligned for normal operation per CL-5A.
- I&C has requested that letdown be secured for trouble shooting of 1CV-135 , LP Letdown line backpressure control valve
- Unit 1 letdown gas stripper is in hot standby.

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to place excess letdown to the VCT in service per OP-5E, ESTABLISHING AND SECURING EXCESS LETDOWN.

JPM PERFORMANCE INFORMATION

Required Materials: OP-5E, Establishing And Securing Excess Letdown

General References: OP-5E, Establishing And Securing Excess Letdown
0-TS-RE-001, Power Level Determination

Task Standards: Excess letdown established, normal letdown and charging secured.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step: 1 **Critical N (SEQ-1)**	Initiate monitoring of reactor power using ΔT's.
Standard:	Monitoring of reactor power initiated.
Evaluator Cue:	The Unit 1 CO will continue monitoring reactor power IAW 0-TS-RE-001.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:2 **Critical N (SEQ-1)**	Ensure CVCS aligned per CL-5A, Chemical and Volume Control System
Standard:	CVCS is aligned per CL-5A
Evaluator Cue:	CVCS is aligned per CL-5A (initial condition)
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical N (SEQ-1)**	Ensure at least one CCW pump is running.
Standard:	At least one pump running.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical N (SEQ-1)**	Ensure the following are open: - CC-719, Cont Equipment CC Supply Hdr Isol. - CC-769, HX-4 ELHX Shell Side Outlet
Standard:	CC-719 and CC-769 checked open
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical N (SEQ-1)**	Ensure CV-312, Excess letdown divert valve, is in divert (RCDT).
Standard:	CV-312 is positioned to divert.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:6 **Critical N (SEQ-1)**	Perform the following in preparation for aligning a flowpath from excess letdown: - place excess letdown on the abnormal alignment list - declare PPCS RTO program OOS - Monitor reactor power per 0-TS-RE-001
Standard:	Examinee addresses the step
Evaluator Cue:	Those actions will be completed by U1 CO and SRO
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical N (SEQ-1)**	Ensure CV-285, Excess letdown HX outlet, is shut.
Standard:	CV-285 is shut.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 8 **Critical Y (SEQ-2)**	Open CV-1299, Excess letdown HX inlet MOV, to pressurize the HX.
Standard:	CV-1299 is open.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 9 **Critical N (SEQ-3)**	Throttle open CV-285 to obtain a 5 to 10 psi increase on PI-121, excess letdown Hx outlet pressure.
Standard:	CV-285 throttled open.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 10 **Critical N (SEQ-3)**	Divert to RCDT, controlling flow as needed, until level rise of greater than or equal to 20% is observed in the RCDT.
Standard:	Flow diverted to RCDT and level rise determined.
Evaluator Cue:	The PAB AO reports that level has increased 23%.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 11 **Critical N (SEQ-4)**	Shut CV-285.
Standard:	CV-285 is shut.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 12 **Critical Y (SEQ-5)**	Place CV-312 in normal. (VCT)
Standard:	CV-312 in normal.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 13 **Critical Y (SEQ-6)**	Throttle open CV-285 to obtain 5 to 10 psi increase on PI-121.
Standard:	CV-285 throttled open.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 14 **Critical N (SEQ-6)**	Place the Letdown Gas Stripper in hot standby if required, per OI-17, Letdown Gas Stripper Operation.
Standard:	Examinee notes that the LDGS is in hot standby per turnover.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 15 **Critical *Y (SEQ-7)**	Shut CV-200A, B and C, Letdown orifice isolation AOV's.
Standard:	CV-200A, B and C are shut
Evaluator Note:	**The critical step is to close either CV-200A, B, C or RC-427. If step 16 of this JPM is performed then this step is not critical.** **This step will actuate the PPCS Priority Alarm annunciator on 1C20 for PPCS Regen HX temperature alarm. The examinee should acknowledge the alarm and report them as expected.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 16 **Critical *Y(SEQ-7)**	Close RC-427, Letdown loop isolation.
Standard:	RC-427 closed.
Evaluator Note:	*** The critical step is to close either CV-200A, B, C or RC-427. If step 15 of this JPM is performed then this step is not critical.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 17 **Critical N (SEQ-7)**	If desired, then close CV-371 and CV-371A, Letdown isolation valves.
Standard:	CV-371 and CV-371A left open.
Evaluator Cue:	The SRO desires CV-371 and CV-371A to be left open.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:18 **Critical N (SEQ-7)**	If charging line isolation is desired to isolate a suspected leak then perform the following substeps
Standard:	The examinee marks the substeps NA and proceeds to next step
Evaluator Cue:	The SRO does not desire charging line isolation
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 19 **Critical N (SEQ-8)**	Reduce charging flow to about 5 to 15 gpm while maintaining RCP lab seal D/P. Maintain charging flow until Regen HX charging outlet temperature (TI-126) and Regen HX Letdown Outlet temperature (TI-127) are reduced to 250 degrees.
Standard:	Charging flow reduced to about 5 to 15 gpm and RCP lab seal D/P maintained. Regen HX charging outlet and Regen HX Letdown Outlet temperature are reduced to less than 250 degrees.
Evaluator Note:	**The examinee may accomplish this by securing one charging pump. This action will likely cause RCP Lab Seal ΔP Low, PPCS Priority, and Charging Pump Speed Limit High or Low alarms to actuate. The examinee should acknowledge the alarms.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 20 **Critical N (SEQ-8)**	Reduce charging flow to one pump in MAN at minimum speed while shutting HCV-142, charging line flow control.
Standard:	One pump in manual and minimum and HCV-142 closed.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 21 **Critical Y (SEQ-9)**	Throttle CV-285 as necessary to maintain pressurizer level stable near level program setpoint and observe the following: – Maintain excess letdown outlet pressure <150 psig on PI-121. – Maintain excess letdown outlet temp. <195° on TI-122. – Monitor RCP No. 1 seal return flows for any adverse effect caused by excess letdown initiation.
Standard:	Pressurizer level stable near program level setpoint. Excess letdown outlet pressure <150 psig Excess letdown outlet temperature <195° RCP No. 1 seal return flows monitored for any adverse effect caused by excess letdown initiation.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

SIMULATOR SET UP: (Modify table as necessary)

Simulator Setup Instructions:

- IC 2 with power lowered to 99% or IC prepared for JPM (IC-108)
- Display DTP on the PPCS 1 x 20

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is operating at 99% power.
- You are the U1 BOP
- Normal letdown is in service.
- CVCS is aligned for normal operation per CL-5A.
- I&C has requested that letdown be secured for trouble shooting of 1CV-135 , LP Letdown line backpressure control valve
- Unit 1 letdown gas stripper is in hot standby.

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to place excess letdown to the VCT in service per OP-5E, ESTABLISHING AND SECURING EXCESS LETDOWN.

JPM P004.013COT, Perform Excess Letdown To The VCT, Rev.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **INITIATE LOW TEMPERATURE OVERPRESSURE PROTECTION**

JPM NUMBER: **P010.010C.COT** **REV.** **0 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P010.010.COT INITIATE LOW TEMPERATURE OVERPRESSURE PROTECTION

K/A NUMBERS: 010.K4.03 (3.8/4.1) 010.A4.03 (4.0/3.8) 010.K3.01 (3.8/3.9)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION:

In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path / Faulted: YES

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **P010.010C.COT**

JPM Title: **INITIATE LOW TEMPERATURE OVERPRESSURE PROTECTION**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

X Procedure adequately addresses task elements.
Enter Identifier here: **OP-3C Hot Standby to Cold Shutdown Rev. 97**

____ Other document adequately describes necessary task elements.
Enter Identifier here: _____

X Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, “acknowledge.” All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Unit 1 CO
- Unit 1 cool down in progress in accordance with OP-3C and RCS temperature is being maintained 330F-340F with RCS pressure stable at 275 to 325 psig. OP-3C has been completed through step 5.19.1. I&C has verified surveillance requirements are met. CL-4C has been completed.

INITIATING CUES (IF APPLICABLE):

- You have been directed by the SRO to continue to place the LTOP system in service beginning with OP-3C, Step 5.19.2.

JPM PERFORMANCE INFORMATION

Required Materials: Keys for enabling LTOP
OP-3C, Hot Standby to Cold Shutdown

General References: Technical Specifications
OP-3C, Hot Standby to Cold Shutdown

Task Standards: Low temperature overpressure protection isolated utilizing PORV Switch, PORV Block Valve Switch or disabling LTOP by turning arming switch off prior to RCP #1 Seal DP alarm actuating.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step: 1 **Critical N (SEQ-1)**	Ensure the RCS temperature is 330°F to 340°F. (TI-451A or TI-451C, Loop B Cold Leg Temp, is preferred indication)
Standard:	Examinee determines RCS temperature is within acceptable band.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical N (SEQ-1)**	Check CL 4C, Low Temperature Overpressurization Protection is complete.
Standard:	Examinee checks CL 4C is complete
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical N (SEQ-1)**	Check the bistable status light L/T O/P PCV-430 is OFF (reset). Check the bistable status light L/T O/P PCV-431C is OFF (reset).
Standard:	Examinee checks bistable lights OFF.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical N (SEQ-1)**	Align RC-431C, T-1 PZR Power-Operated Relief for LTOP as follows: - Ensure RC-515, T-1 PZR RC-431C Power-Operated Relief Isolation is OPEN.
Standard:	Examinee ensures RC-515 is OPEN.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical N (SEQ-1)**	Ensure RC-431C, T-1 PZR Power-Operated Relief Control Switch is in AUTO.
Standard:	Examinee ensures RC-431C Switch is in AUTO
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 6 **Critical Y (SEQ-1)**	Place the RC-431C Low Temp Overpress Enable Key Switch to ON.
Standard:	Examinee Places RC-431C LTOP Key to ON
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical N (SEQ-2)**	Ensure RED armed light lit.
Standard:	Examinee ensures RED armed light is lit.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 8 **Critical N (SEQ-2)**	Align RC-430, T-1 PZR Power-Operated Relief for LTOP as follows: -Ensure RC-516, T-1 PZR RC-430 Power-Operated Relief Isolation is OPEN.
Standard:	Examinee ensures RC-516 is OPEN.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 9 **Critical N (SEQ-2)**	Ensure RC-430, T-1 PZR Power-Operated Relief Control Switch is in AUTO.
Standard:	Examinee ensures RC-430 Switch is in AUTO
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 10 **Critical Y (SEQ-2)**	Place the RC-430 Low Temp Overpress Enable Key Switch to ON.
Standard:	Examinee Places RC-430 LTOP Key to ON
Evaluator Note:	**Upon placing key for RC-430 to OPEN, 1PT-420, RCS Pressure transmitter will fail high. Examinee should note the open PORV and take corrective action based on the failure.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 11 **Critical Y (SEQ-3)**	Isolate RCS leak caused by PORV opening.
Standard:	Examinee recognizes and corrects RCS leak caused by placing LTOP in service concurrent with PT-420 failure: • Key switch for 1RC-430 is taken to off o OR • Handswitch for 1RC-430 is taken to SHUT o OR • 1RC-516, PORV block valve is closed.
Evaluator Note:	**Alarm Response guidance for PORV opening has Operator evaluate plant conditions causing PORV to open and take corrective action to address the problem. Additionally, AOP-24, Response to Instrument Malfunctions, contains guidance to place controls in manual as necessary to mitigate the effects of the instrument failure.** **Examinee must INITIATE corrective action prior to #1 RCP Seal DP Low alarm (1CO4C 4-11 or 1CO3 1D 4-1) annunciating. If alarm annunciates while the block valve is shutting (if this is the action taken) step should be considered SAT.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 12 **Critical N (SEQ-3)**	Report failure to SRO
Standard:	Examinee reports pressure channel failure and corrective actions taken.
Evaluator Cue:	The SRO Acknowledges your report.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

SIMULATOR SET UP: (Modify table as necessary)

Simulator Setup Instructions:

- IC-109 or Cooling Down IC Set, just prior to placing LTOP in service. RCS Temp ~335 and Pressure ~300#
- Establish trigger based on key switch for 1RC-430 position or have booth operator monitor key position and insert failure when key for 1RC-430 is turned on.
- If VCT is bypassed, ensure CV-256A Magnet reflects this alignment
- Preferred alignment is to have key switch of 1RC-430 ON position actuate the Pressure Channel failure. If this is not possible, then have the booth operator trigger channel failure when key for 1RC-430 is placed to ON

SIMULATOR MALFUNCTIONS:

TIME	MALFUNCTION No.	MALFUNCTION TITLE	DELAY	f. SERV	RAMP	I.SEV.
See Setup Instructions	XMT1RCS13A	PT-420 Pressure Fixed Output	0	1000	10	NA

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 CO
- Unit 1 cool down in progress in accordance with OP-3C and RCS temperature is being maintained 330F-340F with RCS pressure stable at 275 to 325 psig. OP-3C has been completed through step 5.19.1. I&C has verified surveillance requirements are met. CL-4C has been completed.

INITIATING CUES (IF APPLICABLE):

- You have been directed by the SRO to continue to place the LTOP system in service beginning with OP-3C, Step 5.19.2.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS		YES	NO	N/A
1.	Are all items on the signature page filled in correctly?	☐	☐	☐
2.	Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3.	Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4.	Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5.	Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6.	Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7.	If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8.	Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9.	Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10.	Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

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JOB PERFORMANCE MEASURE (JPM)

SITE:	**Point Beach Nuclear Plant**
JPM TITLE:	**RESPOND TO LOSS OF SECONDARY HEAT SINK**
JPM NUMBER:	**JPM P000.028a.COT** **REV.** **0 Draft**
RELATED PRA INFORMATION:	**None**
TASK NUMBER(S) / TASK TITLE(S):	P000.028.COT / Respond to Loss of Secondary Heat Sink
K/A NUMBERS:	E05.EA1.1 (4.1/4.0), E05.EA2.2 (3.7/4.3)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION:

In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 30 Minutes Time Critical: NO

Alternate Path / Faulted: YES

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by: _____

Instructor Date

Validated by: _____

Validation Instructor Date
(See JPM Validation Checklist, Attachment 1)

Approved by: _____

Training Supervisor Date

JPM Number: **P000.028A.COT**

JPM Title: **RESPOND TO LOSS OF SECONDARY HEAT SINK**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Delete this table if not required

X Procedure adequately addresses task elements.

Enter Identifier here: **CSP-H.1 Unit 1, Response to Loss of Secondary Heat Sink, Rev. 25**

___ Other document adequately describes necessary task elements.

Enter Identifier here: _____

X Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Unit 1 CO
- Unit 1 was at 100% power.
- PORV 1RC-430 failed open, resulting in a Unit 1 reactor trip and SI actuation.
- The associated PORV block valve 1RC-516 was shut, but a small RCS leak subsequently developed.
- Minimum auxiliary feedwater flow could not be verified per EOP-0 Unit 1, Reactor Trip or Safety Injection.
- The crew transitioned to CSP-H.1 Unit 1, Response to Loss of Secondary Heat Sink.
- CSP-H.1 Unit 1 has been completed through Step 11.a. SI has been reset IAW Step 11.a

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to continue with CSP-H.1 Unit 1, Loss of Secondary Heat Sink, beginning at Step 11.b.

JPM PERFORMANCE INFORMATION

Required Materials: CSP-H.1 Unit 1, Loss of Secondary Heat Sink

General References: CSP-H.1 Unit 1, Loss of Secondary Heat Sink

Task Standards: The Examinee establishes condensate flow to a depressurized steam generator in accordance with CSP-H.1 Unit 1, Loss of Secondary Heat Sink.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step:1 **Critical N (SEQ-1)**	Ensure feedwater regulating valve bypass controllers in manual and shut -1HC-480 for S/G A -1HC-481 for S/G B
Standard:	The Examinee ensures controllers for A and B FRV bypass valves are selected to manual with potentiometer setting at 0 to shut bypass valves.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical *Y (SEQ-2)**	Reset feedwater regulating valve bypasses.
Standard:	The Examinee depresses the "Reset" pushbuttons on 1C03 to reset the FRV bypasses.
Evaluator Note:	**Bypass valve resets are near the front of the apron section of 1C03, 78% level/SI lockout red lights above Bypass valve controllers will go out when reset buttons are depressed.** ***Critical step that must be completed at either JPM step 2 or 15**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical N (SEQ-3)**	Check feedwater regulating valve bypasses – at least one capable of being opened manually or locally. -1CS-480 for S/G A -1CS-481 for S/G B
Standard:	The Examinee checks that at least one of the bypass valves is capable of opening.
Evaluator Note:	**The Examinee may stroke one of the valves open, then shut to prove the valve will open.**
Evaluator Cue:	If Examinee contacts an Auxiliary Operator, cue that the AO is available and is capable of opening the valves if needed.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical N (SEQ-4)**	Check Main Feedwater Pumps – at least one running. -1P-28A -1P-28B
Standard:	The Examinee checks the MFP control switches and finds that neither are running. The Examinee enters the RNO column for step 12.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical N (SEQ-4)**	-Locally Start main feed seal water pumps -Ensure main feed AC lube oil pumps running -Manually open 1CS-2273 -Start one main feed pump -If no main feedwater pumps can be started, then go to step 16.
Standard:	The Examinee does the following: a. Checks the indicating lights for the main feed seal water pumps or calls the AO to start the pumps (1P-99 A and B) b. Ensures that 1P-73 B and A are running c. Places controller for 1CS-2273 in MANUAL and OPENS 1CS-2273 d. Attempts to start a main feedwater pump. e. Realizes that none will start and goes to step 16.
Evaluator Cue:	If Examinee contacts AO to start 1P-99A and B, report that the pumps are already running.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 6 **Critical N (SEQ-4)**	Check SI – no active signal present
Standard:	The Examinee checks SI annunciators or plant conditions are notes that an active SI signal is present
Evaluator Note:	**The decision point in this step determines whether the plant must be depressurized and the SI signal blocked prior to depressurizing a SG. In this case, there is an active SI signal present from Low Pressurizer Pressure, even though the signal has been reset. If examinee mistakenly assumes that there is no active signal, since SI has been reset, the examinee will perform steps 17 and 18 prior to continuing with step 19. This will not affect the success path for the JPM.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical N (SEQ-4)**	Maintain Stable RCS Conditions: Establish desired charging flow: -Fully open charging flow control valve 1HC-142 -Start additional charging pumps -1P-2A, train A -1P-2B, train A -1P-2C, train B -Adjust charging pump speed as necessary to maintain charging flow less than 140 gpm
Standard:	The Examinee: • Fully opens charging flow control valve, 1HC-142, • Ensures all available charging pumps are running, 1P-2A, 1P-2B, 1P-2C, and • Adjusts charging pump speed as necessary to maintain charging flow less than 140 gpm.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 8 **Critical N (SEQ-4)**	Control charging flow to maintain PZR level greater than [34%] 10%
Standard:	The Examinee adjusts running charging pump(s) speed to control charging flow to maintain PZR level greater than [34%] 10%.
Evaluator Note:	**Pressurizer level will likely be off-scale low. If so, the examinee will check SI flow per the RNO column.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 9 **Critical N (SEQ-4)**	Check RCS subcooling based on core exit thermocouples greater than [80°F] 35°F
Standard:	The Examinee checks RCS subcooling based on core exit thermocouples on 1C20 greater than [80°F] 35°F.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 10 **Critical N (SEQ-5)**	Depressurize One S/G To Less Than 350 PSIG: Dump steam to condenser at maximum rate from selected S/G:
Standard:	The Examinee determines that the condenser steam dump is not available and goes to step 20 RNO a.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 11 **Critical Y (SEQ-5)**	Manually or locally dump steam at maximum rate from selected S/G: Open atmospheric steam dump. -1MS-2016 for S/G A -1MS-2015 for S/G B
Standard:	The Examinee places the S/G atmospheric steam dump controller in Manual and fully opens one S/G atmospheric steam dump.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 12 **Critical N (SEQ-5)**	Shut MSIV on S/G not being depressurized.
Standard:	The Examinee verifies shut the MSIV on the S/G not being depressurized.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 13 **Critical N (SEQ-5)**	Check core exit thermocouples stable or trending lower
Standard:	The Examinee checks core exit thermocouples on 1C20 stable or trending lower.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 14 **Critical Y (SEQ-5)**	Ensure S/Gs – at least one being depressurized
Standard:	The Examinee ensures at least one steam generator is depressurizing by checking both steam generator pressures on 1C03.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 15 **Critical *Y (SEQ-5)**	Establish Feedwater Flow Path: -Reset feedwater regulating valve bypasses.
Standard:	The Examinee resets the feedwater regulating valve bypasses by depressing both feedwater regulating valve bypass pushbuttons on 1C03.
Evaluator Note:	**Bypass valve resets are near the front of the apron section of 1C03, 78% level/SI lockout red lights above Bypass valve controllers will go out when reset buttons are depressed.** ***Critical step that must be completed at either JPM step 2 or 15**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 16 **Critical Y (SEQ-6)**	Fully open feedwater regulating valve bypass on S/G being depressurized -1CS-480 for S/G A -1CS-481 for S/G B
Standard:	The examinee fully opens the feedwater regulating valve bypass 1CS-480 or 1CS-481 for the steam generator being depressurized.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 17 **Critical N (SEQ-6)**	Prepare For Condensate Flow While Depressurizing One S/G: Ensure main feed AC lube oil pumps running -1P-73B, train A -1P-73A, train B
Standard:	The Examinee checks running main feed AC lube oil pumps, 1P-73B and 1P-73A on 1C03. If they are off the Examinee dispatches an Auxiliary Operator to locally start main feed AC lube oil pumps,1P-73B and 1P-73A.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 18 **Critical N (SEQ-6)**	Manually shut low pressure feedwater heater bypass valve 1CS-2273
Standard:	The Examinee ensures the hand controller for the low pressure feedwater heater bypass valve, 1CS-2273 is in manual and shuts 1CS-2273.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 19 **Critical *Y (SEQ-6)**	Open main feed pump discharge MOVs: Open main feed pump discharge MOV and hold switch in open position. -1CS-2190, train A -1CS-2189, train B Open breaker for open MOVs -1B52-417M for 1CS-2190 -1B52-417J for 1CS-2189
Standard:	The Examinee: • Opens and holds open the main feed pump discharge MOV control switch for 1CS-2190 as an Auxiliary Operator opens breaker 1B52-417M and then, • Opens and holds open the main feed pump discharge MOV control switch for 1CS-2189 as an Auxiliary Operator open breaker 1B52-417J.
Evaluator Note:	***Although CSP-H.1 calls for both main feed pump discharge valves to be opened, only one open valve is required for satisfactory performance of this step.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 20 **Critical N (SEQ-6)**	Verify Condensate Flow Path To Depressurized S/G: Check condensate pumps – at least one running
Standard:	The Examinee checks at least one condensate pump running at 1C03.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 21 **Critical N (SEQ-6)**	Check flow path from running condensate pump to depressurizing S/G available
Standard:	The Examinee checks available the flow paths from the running condensate pumps to the depressurizing steam generator on 1C03.
Evaluator Cue:	If the Examinee request an Auxiliary Operator walk-down of the feed and condensate system, the Auxiliary Operator reports that the feed and condensate system is intact.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 22 **Critical N (SEQ-7)**	Control Condensate Addition To Depressurized S/G(s): Check wide range level in depressurized S/G(s) stable or trending higher
Standard:	The Examinee checks wide range level in the depressurized S/G(s) stable or trending higher on either 1C20 or 1C03.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 23 **Critical Y (SEQ-7)**	Throttle feedwater regulating valve bypass as necessary to maintain depressurized S/G wide range level stable or trending higher
Standard:	The Examinee throttles the feedwater regulating valve bypasses as necessary to maintain depressurized S/G wide range level stable or trending higher.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

SIMULATOR SET UP: (*Modify table as necessary)*

Simulator Setup Instructions:

Initial Setup:

- Load an IC where conditions support 100% steady state conditions.
- Load the preloads.
- Start the simulation.
- Run the simulator until SI is actuated and then shut the PRV block valve, 1RC-516 for PORV 1RC-420.
- Complete EOP-0 Unit 1, Reactor Trip or Safety Injection to the point of transition to CSP-H.1 Unit 1, Response to Loss of Secondary Heat Sink.
- Complete CSP-H.1 Unit 1, Steps 1 through 19 and then freeze the simulator.
- Walk down the control boards to ensure plant conditions accurately reflect the JPM's initial conditions.
- Make any necessary adjustments or corrections.
- Update documentation if required.
- Save to an IC for multiple uses.

Multiple Uses:

- Load the saved IC for this JPM. (IC-116)
- Walk down the control boards to ensure plant conditions accurately reflect the JPM's initial conditions.
- Make any necessary adjustments or corrections.
- Update documentation if required.
- Resave if required.

SIMULATOR INFORMATION:

Initiation Cue	Action or Component Description	Action Tagname	Malf. Value	Ramp Time	Delay Time	Trigger		Verification Performed	
						Event Criteria	Oper. Init. #	Ready	Inserted
Preload	0-P38A Auxiliary Feed Water Pump (Shaft Seizure)	PMP1AFW001	2	-	-	-	-		
Preload	0-P38B Auxiliary Feed Water Pump (Shaft Seizure)	PMP1AFW003	2	-	-	-	-		
Preload	1P-29 Steam Driven Feed Pump (Shaft Seizure)	PMP1AFW003	2	-	-	-	-		
Preload	1-A5205 P-28A SF Feed Pump CKTBKR (Trip)	BKR1CFW001	1	-	-	1 JCRFTR	-		

Initiation Cue	Action or Component Description	Action Tagname	Malf. Value	Ramp Time	Delay Time	Trigger		Verification Performed	
						Event Criteria	Oper. Init. #	Ready	Inserted
Preload	1-A5213 P-28B SG Feed Pump CKTBKR (Trip)	BKR1CFW	1	-	-	1 JCRFTR	-		
Preload	1RC-430 PRZR Rel Vlv No 1-430 (Open)	VLV1RCS001	1	-	00:00:15 15 sec.	-	-		
WHEN directed, THEN:	1-P73A 1P-28B SGFP AC Lube Oil Pump CS (ON)	LOA1CFW079	ON	-	00:01:00 60 sec	-	2		
WHEN directed, THEN	1-P73B 1P-28A SGFP AC Lube Oil Pump CS (ON)	LOA1CFW080	ON	-	00:01:15 75 sec	-	2		
WHEN directed, THEN	1CS-2190 FWP No 1P-28A Disch Stop Vlv (Fail CNTRL Fuse)	VLV1CFW015	1	-	-	-	3		
WHEN directed, THEN	1CS-2189 FWP No 1P-28B Disch Stop Vlv (Fail CNTRL Fuse)	VLV1CFW013	1				4		
WHEN directed, THEN	P99A SGFP Seal Inj. Pump	LOA1CFW83	1	-	-	-	5		
WHEN directed, THEN	P99B SGFP Seal Inj. Pump	LOA1CFW84	1	-	-	-	5		

Preload	RCS Leak Loop B Cold Leg	*When 1RC-516 is shut isolating 1RC-430, the following RCS leak occurs:* X14I201C .EQ. 1 IMF MAL1RCS002E (0: 5) 20 60 0		

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 CO
- Unit 1 was at 100% power.
- PORV 1RC-430 failed open, resulting in a Unit 1 reactor trip and SI actuation.
- The associated PORV block valve 1RC-516 was shut, but a small RCS leak subsequently developed.
- Minimum auxiliary feedwater flow could not be verified per EOP-0 Unit 1, Reactor Trip or Safety Injection.
- The crew transitioned to CSP-H.1 Unit 1, Response to Loss of Secondary Heat Sink.
- CSP-H.1 Unit 1 has been completed through Step 11.a. SI has been reset IAW Step 11.a

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to continue with CSP-H.1 Unit 1, Loss of Secondary Heat Sink, beginning at Step 11.b.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS		YES	NO	N/A
1.	Are all items on the signature page filled in correctly?	☐	☐	☐
2.	Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3.	Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4.	Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5.	Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6.	Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7.	If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8.	Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9.	Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10.	Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **ADJUST CONTAINMENT SUMP PH**

JPM NUMBER: **P026.002.COT** **REV.** **0 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P026.002.COT Adjust Containment Sump PH

K/A NUMBERS: 026.K4.02 (3.1/3.6), 026.A3.01 (4.3/4.5), 026.A2.05(3.7/4.1)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **P026.002.COT**

JPM Title: **ADJUST CONTAINMENT SUMP PH**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Delete this table if not required

X Procedure adequately addresses task elements.

Enter Identifier here: **EOP-1.4, Transfer to Containment Sump Recirc – High Head Injection, Rev. 15**

____ Other document adequately describes necessary task elements.

Enter Identifier here: _____

X Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Unit 1 BOP.
- Unit 1 has experienced a small break LOCA. The crew has entered EOP-1.4 "Transfer to Containment Sump Recirculation – High Head Injection".
- Containment pressure has remained less than Spray Actuation Setpoint throughout the accident.

INITIATING CUES (IF APPLICABLE):

- The SRO has directed you to perform step 2 of EOP-1.4 to determine if Containment Sump pH should be adjusted and perform actions accordingly.

JPM PERFORMANCE INFORMATION

Required Materials: EOP-1.4, Transfer to Containment Sump Recirculation – High Head Injection

General References: EOP-1.4, Transfer to Containment Sump Recirculation – High Head Injection

Task Standards: The Examinee establishes Containment Spray flow to containment using one containment spray pump and the associated spray eductor.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step:1 **Critical N (SEQ-1)**	Check if Containment Sump pH must be adjusted: Check Containment Spray Pumps both stopped. -1P-14A -1P-14B
Standard:	The Examinee checks green light on, red light off for both Containment Spray pumps.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical N (SEQ-1)**	Check spray addition tank – no NaOH added to containment
Standard:	The Examinee checks Spray Addition Tank level and recognizes no NaOH has been injected into containment.
Evaluator Note:	**Spray Addition Tank level indicator will read approximately 64%, which is normal tank level indication.**
Evaluator Cue:	If asked, Spray Add Tank level was 64% (or as indicated) during performance of U1 CO rounds.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical N (SEQ-1)**	Ensure containment spray pump RWST suction MOVs both open -1SI-870A for 1P-14A -1SI-870B for 1P-14B
Standard:	The Examinee ensures 1SI-870 A & B are open, red lights on, green lights off.
Evaluator Note:	**Spray Pump suction valves are normally open.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical Y (SEQ-1)**	Ensure containment spray pump discharge MOVs all open -1SI-860A for 1P-14A -1SI-860B for 1P-14A -1SI-860C for 1P-14B -1SI-860D for 1P-14B
Standard:	The Examinee opens all spray pump discharge valves, 1SI-860A-D. The Critical Task is to ensure at least one valve is open in the discharge path of the pump to be started.
Evaluator Note:	**Spray Pump Discharge valves are normally shut. The discharge valves are in parallel for each pump.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical Y (SEQ-2)**	Start one containment spray pump - 1P-14A, train A - 1P-14B, train B
Standard:	The Examinee starts one containment spray pump.
Evaluator Note:	**The Examinee may select either pump to start.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 6 **Critical Y (SEQ-3)**	Open associated spray additive eductor suction valve for running containment spray pump. -1SI-836A for 1P-14A -1SI-836B for 1P-14B
Standard:	The Examinee places the controller for the selected train SI-836 valve in MANUAL and then manipulates control joystick to OPEN the valve. The Critical Task is to ensure that at least one valve is open.
Evaluator Note:	**Examinee should select same train valve, however, the valves are in parallel so only one is needed to provide NaOH to the pump suction. Valves fail open, thus a 0 signal on the controller will fully open the valve.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical N (SEQ-4)**	Inform the SRO of present plant conditions.
Standard:	The Examinee informs the SRO that: • Containment Spray Train A(B) pump is running. • Spray eductor valve is opened and • Spray system is supplying NaOH to the containment.
Evaluator Cue:	The SRO acknowledges your report.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

SIMULATOR SET UP:

Initial Setup

- Load or Create IC set for post-LOCA conditions. This may be done by inserting an ~17% hot or cold leg break and implementing expected EOP actions until RWST reaches 60%. Be aware that this may take an hour or more to do from IC-2.
- Verify that containment pressure remains below Spray Actuation Setpoint throughout the initial setup.
- When RWST reaches 60%, walkdown the control boards and verify the plant is stable for the given conditions. Ensure ECCS Pumps are providing flow to the RCS.
- Make any necessary adjustments or corrections.
- Save to an IC for multiple use.

Multiple Use

- Load the saved IC (IC-111) for this JPM
- Walkdown control boards to ensure plant conditions accurately reflect the JPM's initial conditions.
- Make any necessary adjustments or corrections.
- Resnap if required.

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 BOP.
- Unit 1 has experienced a small break LOCA. The crew has entered EOP-1.4 “Transfer to Containment Sump Recirculation – High Head Injection”.
- Containment pressure has remained less than Spray Actuation Setpoint throughout the accident.

INITIATING CUES (IF APPLICABLE):

- The SRO has directed you to perform step 2 of EOP-1.4 to determine if Containment Sump pH should be adjusted and perform actions accordingly.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date

Historical Record: (Optional)

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **PERFORM TRANSFER OF 4KV NON-VITAL BUSES BETWEEN TRANSFORMERS**

JPM NUMBER: **JPM P062.013COT** **REV.** **4 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P062.013COT, Perform Transfer of 4kV Non-vital Buses Between Transformers

K/A NUMBERS: 062.K2.01 (3.3/3.4), 062.A4.01 (3.3/3.1), 062.A4.07 (3.1/3.1)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **JPM P062.013COT**

JPM Title: **Perform transfer of 4kV non-vital buses between transformers**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

_X_ Procedure adequately addresses task elements.
Enter Identifier here: **OP-1C, Startup to Power Operation Unit 1, Rev. 8**

____ Other document adequately describes necessary task elements.
Enter Identifier here: _____

_X_ Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, “acknowledge.” All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the U1 BOP
- Unit 1 is at 22% power following a reactor and plant startup and is at step 5.112 of OP-1C, which directs the shifting of unit auxiliaries.

INITIATING CUES (IF APPLICABLE):

- The SRO has ordered bus 1A-01 and 1A-02 shifted from 1X-04 to 1X-02 per OP-1C Unit 1, step 5.112.1 through 5.112.3.

JPM PERFORMANCE INFORMATION

Required Materials: OP-1C, Startup to Power Operation Unit 1 complete through step 5.111

General References: OP-1C, Startup to Power Operation Unit 1.

Task Standards: Bus 1A-01 and 1A-02 is shifted to transformer 1X-02 without a loss of power to 1A-01 or 1A-02.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step: 1 **Critical N (SEQ-1)**	Check electrical continuity between high sides of 1X-02 and 1X-04 (i.e. 1X-04 powered from off-site power.)
Standard:	Electrical continuity verified.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical Y (SEQ-1)**	Transfer bus 1A-01 to 1X-02 as follows: Place bus 1A-01 Normal Feed Synchroscope switch to ON.
Standard:	Synchroscope energized for breaker 1A52-01.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical N (SEQ-2)**	Check Synchroscope is nulled.
Standard:	Synchroscope verified in phase with comparable incoming and running voltage.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical Y (SEQ-3)**	Close 1A52-01, Bus 1A-01 Normal Feed.
Standard:	Breaker 1A52-01 closed.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical N (SEQ-4)**	Check Annunciator C02E 4-7, TRANSFORMERS PARALLELED, is received.
Standard:	Alarm acknowledged.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 6 **Critical Y (SEQ-5)**	Trip 1A52-37, 1A-03 to 1A-01 Bus Tie Breaker.
Standard	Breaker 1A52-37 open.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical N (SEQ-6)**	Check Annunciator C02E 4-7, TRANSFORMERS PARALLELED, clears.
Standard:	Alarm verified clear.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 8 **Critical N (SEQ-6)**	Turn the 1A-01 Normal Feed Synchroscope switch to OFF.
Standard:	Synchronizing switch for 1A52-01 in "off" position.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 9 **Critical Y (SEQ-1)**	Transfer bus 1A-02 to 1X-02 as follows: Place Bus 1A-02 Normal Feed Synchroscope switch to ON.
Standard:	Synchroscope energized for breaker 1A52-17.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 10 **Critical N (SEQ-2)**	Check Synchroscope is nulled.
Standard:	Synchroscope verified in phase with comparable incoming and running voltage.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 11 **Critical Y (SEQ-3)**	Close 1A52-17, Bus 1A-02 Normal Feed.
Standard:	Breaker 1A52-17 closed.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 12 **Critical N (SEQ-4)**	Check Annunciator C02E 4-7, TRANSFORMERS PARALLELED, is received.
Standard:	Alarm acknowledged.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 13 **Critical Y (SEQ-5)**	Trip 1A52-55, 1A-04 to 1A-02 Bus Tie Breaker.
Standard:	Breaker 1A52-55 open.
Evaluator Cue:	1A52-55 green light is lit and the red light is off. (Or as shown on the simulator).
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 14 **Critical N (SEQ-6)**	Check Annunciator C02E 4-7, TRANSFORMERS PARALLELED, clears.
Standard:	Alarm verified clear.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 15 **Critical N (SEQ-6)**	Turn the 1A-02 Normal Feed Synchroscope switch to OFF.
Standard:	Synchronizing switch for 1A52-17 in “off” position.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

SIMULATOR SET UP:

Simulator Setup Instructions:

- IC-112 (U1 in OP-1C following load ramp up to 20%)

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit1 BOP
- Unit 1 is at ~22% power following a reactor and plant startup and is at step 5.112 of OP-1C, which directs the shifting of unit auxiliaries.

INITIATING CUES (IF APPLICABLE):

- The SRO has ordered bus 1A-01 and 1A-02 shifted from 1X-04 to 1X-02 per OP-1C Unit 1, step 5.112.1 through 5.112.3.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS		YES	NO	N/A
1.	Are all items on the signature page filled in correctly?	☐	☐	☐
2.	Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3.	Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4.	Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5.	Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6.	Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7.	If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8.	Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9.	Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10.	Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____

Validation Personnel /Date Validation Personnel/Date

_____ _____

Validation Personnel /Date Validation Personnel/Date

_____ _____

Validation Personnel /Date Validation Personnel/Date

_____ _____

Validation Personnel /Date Validation Personnel/Date

Historical Record: (Optional)

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **ADJUST NUCLEAR INSTRUMENTS**

JPM NUMBER: **JPM P015.011aCOT** **REV.** **4 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P015.011.COT / Adjust Nuclear Instruments

K/A NUMBERS: 015 A1.01 (3.5/3.8), 015 A1.03 (3.7/3.7), 015 A4.02 (3.9/3.9)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 25 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by: _____
Instructor Date

Validated by: _____
Validation Instructor Date
(See JPM Validation Checklist, Attachment 1)

Approved by: _____
Training Supervisor Date

JPM Number: **JPM P015.011aCOT**

JPM Title: **ADJUST NUCLEAR INSTRUMENTS**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Delete this table if not required

_X_ Procedure adequately addresses task elements.
Enter Identifier here: **0-TS-RE-002, Rev. 5, 0-TS-RE-001, Rev. 12**

____ Other document adequately describes necessary task elements.
Enter Identifier here: _____

____ Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, “acknowledge.” All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are Unit 1 BOP
- 0-TS-RE-001, "Power Level Determination", Section 5.2 was previously performed. RTOP 15 was not within 0.75% of NIS power range indication on NI Channel 41.
- This requires 0-TS-RE-002, "Power Range Detector Power Level Adjustment" to be performed.

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to perform Attachment A of 0-TS-RE-002, "Power Range Detector Power Level Adjustment" for power range detector N-41. All prerequisites and initial conditions have been satisfied.

JPM PERFORMANCE INFORMATION

Required Materials: 0-TS-RE-002, "Power Range Detector Power Level Adjustment" with all channels except N41 marked NA
Completed 0-TS-RE-001
Copy of U1 ROD 14

General References: 0-TS-RE-001, "Power Level Determination"
0-TS-RE-002, "Power Range Detector Power Level Adjustment"
ROD 14

Task Standards: Properly adjust indicated power range Drawer A for NI Channel 41 within .75% of calculated reactor power.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step: 1 **Critical N (SEQ-1)**	Record reactor thermal output determined from 0-TS-RE-001, "Power Level Determination".
Standard:	Ask for 0-TS-RE-001 to obtain reactor thermal output value. Put value in Step 1.0 of Attachment A.
Evaluator Note:	**A copy of 0-TS-RE-001 needs to be provided to the examinee.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 2 **Critical Y (SEQ-1)**	Ensure control rod bank selector switch on 1C04 in manual.
Standard:	Rod bank selector switch taken from auto to manual on 1C04.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical N (SEQ-1)**	Record the as found power range Drawer A indication.
Standard:	Locate and obtain power range Drawer A value for Channel N41 and record on Attachment A, Step 3.0.
Evaluator Note:	**Other channels not requiring adjustment should be marked N/A. The intent of this JPM is not to perform adjustment on more than one channel, however good operational practice may lead to the examinee attempting to adjust all channels whether they require adjustment or not. The examinee may need to be cued to stop after completing adjustment on one channel.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical N (SEQ-2)**	Unlock the Gain potentiometer on power range Drawer B.
Standard:	Locate Gain potentiometer on power range Drawer B (for N41) and rotate black knob to the left to unlock.
Evaluator Note:	**Not critical as the gain potentiometer can be adjusted whether locked or unlocked – lock only changes amount of resistance**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical Y (SEQ-3)**	Adjust the indicated power for N41, on power range Drawer A as close as possible to the reactor thermal output recorded in Step 1.0, using the Gain potentiometer.
Standard:	Locate Gain potentiometer on power range Drawer A and adjust within 0.75% of calculated reactor power for Channel N41.
Evaluator Note:	**The examinee should mark the preceding substep NA as the potentiometer is not at the end of its travel.** **The critical portion of the task is to ensure that the NI adjustment is within 0.75% of the calculated reactor power.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 6 **Critical N (SEQ-4)**	Lock the Gain potentiometer on power range Drawer B.
Standard:	Locate and lock by turning black knob to the right on the Gain potentiometer for N41 on power range Drawer B.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical N (SEQ-4)**	Record the as left power range Drawer A indication.
Standard:	Examinee records power level in Step 7.0 of Attachment A.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 8 **Critical N (SEQ-4)**	Ensure the following alarms are clear: 1C04 1A 3-5, 4-2, 4-3 and 4-5
Standard:	Examinee checks that annunciators 1C04-1A, 3-5, 4-2, 4-3 and 4-5 are clear.
Evaluator Note:	**Examinee may also note the rod drop alarm is not lit on NI cabinet.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:9 **Critical N (SEQ-4)**	Ensure 1C04 1A 3-3 Power Range Channel Deviation is clear
Standard:	Examinee checks that annunciator 1C04 1A 3-3 is clear.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 10 **Critical N (SEQ-4)**	Place control rod bank selector switch on 1C-04 to automatic, if desired.
Standard:	Rod bank selector switch on 1C-04 returned to automatic.
Evaluator Cue:	If asked, it is desired to place the rod bank selector switch to automatic.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 11 **Critical N (SEQ-4)**	Record the Gain potentiometer setting for each power range channel on the logsheet in the Reactor Operating Data Book, Rod 14.
Standard:	Gain potentiometer setting for each power range channel recorded in Reactor Operating Data Book, ROD 14.
Evaluator Note:	**Examinee locates Rod 14 and then examiner provides a copy of Rod 14 for the examinee to record Gain potentiometer settings for each channel.**
Evaluator Cue:	Examiner provides a copy of Rod 14 after examinee locates Rod 14 in its proper location.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

SIMULATOR SET UP: (Modify table as necessary)

Simulator Setup Instructions:
INITIALIZE simulator and LOAD IC-2 (or IC made for the series of JPMs (IC-113))

Perform 0-TS-RE-001

Adjust NI Channel 41 to read ≥ 1% below power figured in Step 5.3.3 of 0-TS-RE-001 without bringing in the power deviation annunciator. RTOP15 should be as close to 100% as possible with steady state conditions.

ENSURE only 1 NI Channel is out of tolerance and Tavg and RTO set up on Digital Displays.

TURNOVER SHEET

INITIAL CONDITIONS:

- You are Unit 1 BOP
- 0-TS-RE-001, "Power Level Determination", Section 5.2 was previously performed. RTOP 15 was not within 0.75% of NIS power range indication on NI Channel 41.
- This requires 0-TS-RE-002, "Power Range Detector Power Level Adjustment" to be performed.

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to perform Attachment A of 0-TS-RE-002, "Power Range Detector Power Level Adjustment" for power range detector N-41. All prerequisites and initial conditions have been satisfied.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS		YES	NO	N/A
1.	Are all items on the signature page filled in correctly?	☐	☐	☐
2.	Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3.	Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4.	Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5.	Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6.	Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7.	If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8.	Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9.	Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10.	Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____

Validation Personnel /Date Validation Personnel/Date

_____ _____

Validation Personnel /Date Validation Personnel/Date

_____ _____

Validation Personnel /Date Validation Personnel/Date

Historical Record: (Optional)

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **RESPOND TO A LOSS OF COMPONENT COOLING WATER**

JPM NUMBER: **JPM P000.015COT** **REV.** **5 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P000.015.COT / Respond to Loss of Component Cooling Water System Malfunctions

K/A NUMBERS: 008 A2.02 (3.2 / 3.5)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [X] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [X]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path / Faulted: YES

TASK APPLICABILITY: SRO/RO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **P000.015.COT**

JPM Title: **RESPOND TO A LOSS OF COMPONENT COOLING WATER**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Delete this table if not required

x Procedure adequately addresses task elements.

Enter Identifier here: **AOP 9B Unit 1, Component Cooling System Malfunction, Rev. 18**

____ Other document adequately describes necessary task elements.

Enter Identifier here: _____

x Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Unit 1 CO.
- Unit 1 is at 100% steady-state conditions.
- The following indications/alarms have occurred:
  - Annunciator 1T-12 CC SURGE TANK LEVEL HIGH OR LOW 1C03 1D 3-6 is lit.
  - Annunciator AUXILIARY BUILDING –19 FT SUMP LEVEL HIGH C01A 1-11 is lit.
  - CCW surge tank level is lowering.

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to respond to the indications/alarms, taking any corrective actions required in accordance with AOP 9B Unit 1, Component Cooling System Malfunction.

JPM PERFORMANCE INFORMATION

Required Materials: AOP 9B Unit 1, Component Cooling System Malfunction.

General References: AOP 9B Unit 1, Component Cooling System Malfunction.

Task Standards: The Examinee responds to a loss of component cooling water in excess of make-up capacity in accordance with AOP 9B unit 1, Component Cooling System Malfunction.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Do not go to "run" on the simulator until the Examinee is ready to begin the JPM.

Start Time: _____

Performance Step: 1 **Critical N (SEQ-1)**	Check Component Cooling Pumps – at least one running -1P-11A, train A -1P-11B, train B
Standard:	The Examinee checks at least one component cooling pump, 1P-11A or 1P-11B running.
Evaluator Note:	**The Evaluator Cue is not required if the JPM is performed in the simulator.**
Evaluator Cue:	• The green light is off and the red light is on for component cooling pump, 1P-11A. • The green light is on and the red light is off for component cooling pump, 1P-11B.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical N (SEQ-1)**	Maintain Surge Tank level: Check surge tank level lowering -1LI-618B -PPCS point L-618
Standard:	The Examinee checks surge tank level lowering.
Evaluator Note:	**The Evaluator Cue is not required if the JPM is performed in the simulator.**
Evaluator Cue:	• 1T-12, CC Surge Tank Level, 1LI-618B indicates <45% and lowering. • PPCS point L-618 indicates <45% and slowly lowering.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____ _____

Performance Step: 3 **Critical N (SEQ-1)**	Start reactor makeup water pump aligned for services -P-23A -P-23B
Standard:	The Examinee places the control switch for the reactor makeup water pump aligned for services, P-23A/B, to the Start position.
Evaluator Note:	**The Evaluator Cue is not required if the JPM is performed in the simulator.**
Evaluator Cue:	• The control switch for the reactor makeup water pump aligned for services, P-23A/B is in the Start position. • The green light is off and the red light is on for the reactor makeup water pump, P-23A/B.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical N (SEQ-1)**	Ensure component cooling surge tank vent open -1CC-17
Standard:	The Examinee ensures that the component cooling surge tank vent, 1CC-17 is open.
Evaluator Note:	**The Evaluator Cue is not required if the JPM is performed in the simulator.**
Evaluator Cue:	The green light is off and the red light is on for component cooling surge tank vent, 1CC-17.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical N (SEQ-2)**	Cycle emergency makeup valve 1CC-815 as necessary to maintain level between 20% - 60%
Standard:	The Examinee cycles the emergency makeup valve, 1CC-815 as necessary to maintain level between 20% and 60%.
Evaluator Note:	**The Evaluator Cue is not required if the JPM is performed in the simulator.**
Evaluator Cue:	• The green light is off and the red light is on for the emergency makeup valve, 1CC-815. • 1T-12, CC Surge Tank Level, 1LI-618B indicates level is slowly lowering. • PPCS point L-618 indicates level is slowly lowering.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 6 **Critical N (SEQ-2)**	Locally fill surge tank as follows: -Cycle CCW surge tank demin water inlet valve 1CC-773 as necessary to maintain level between 20% - 60%.
Standard:	The examinee may direct the PAB AO to locally fill the CCW surge tank with DI water by opening 1CC-773 since he will be unable to maintain level with the emergency makeup valve.
Evaluator Cue:	**If the PAB AO is directed to open 1CC-773, then report back after 1.5 minutes that the valve will NOT open.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical N (SEQ-2)**	Identify and isolate leak per Attachment A, LEAK ISOLATION FOR LOWERING SURGE TANK LEVEL, while continuing with this procedure**.**
Standard:	The Examinee attempts to identify and isolate the leak per Attachment A, LEAK ISOLATION FOR LOWERING SURGE TANK LEVEL.
Evaluator Note:	**The Examinee should contact the PAB AO to inspect system piping to identify the source of the leak. The AO report should be promptly given.** **Do not let the Examinee enter AOP 12A, Oil, Hazardous Material, and Radioactive Materials Spill in response to a chromate spill.**
Evaluator Cue:	The primary auxiliary building Auxiliary Operator reports that water is spraying from the common discharge pipe in the area below C-59 by the short line and no isolation valves exist to stop the leakage.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 8 **Critical N (SEQ-2)**	Check component cooling surge tank level stable -Shut emergency makeup valve 1CC-815 -Stop reactor makeup water pump -P-23A -P-23B
Standard:	The Examinee identifies that component cooling surge tank level is not stable.
Evaluator Note:	**The Evaluator Cue is not required if the JPM is performed in the simulator. The Examinee should identify that surge tank level is not stable and maintain emergency makeup.**
Evaluator Cue:	• The green light is off and the red light is on for the emergency makeup valve, 1CC-815. • 1T-12, CC Surge Tank Level, LI-618B indicates level is slowly lowering. • PPCS point L-618 indicates level is slowly lowering.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 9 **Critical N (SEQ-2)**	When leak isolated, then perform the following: Shut surge tank makeup valve. -1CC-815 -1CC-773 Stop reactor makeup water pump. -P-23A -P-23B
Standard:	The Examinee proceeds to Step 3.
Evaluator Note:	**The Evaluator Cue is not required if the JPM is performed in the simulator.**
Evaluator Cue:	• The green light is off and the red light is on for the emergency makeup valve, 1CC-815. • 1T-12, CC Surge Tank Level, 1LI-618B indicates level is slowly lowering. • PPCS point L-618 indicates level is slowly lowering.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 10 **Critical Y (SEQ-2)**	Check Surge Tank Level greater than 10% -1LI-618B -PPCS point L-618
Standard:	There will come a point in time where the Examinee identifies that surge tank level cannot be maintained greater than 10% and proceeds to Step 3. RNO.
Evaluator Note:	**The Evaluator Cue is not required if the JPM is performed in the simulator.** **This is a continuous action step.**
Evaluator Cue:	• The green light is off and the red light is on for the emergency makeup valve, 1CC-815. • 1T-12, CC Surge Tank Level, 1LI-618B indicates level is less than 10% and is slowly lowering. • PPCS point L-618 indicates level is less than 10% and is slowly lowering.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 11 **Critical Y (SEQ-3)**	Place component cooling pumps in pullout. -1P-11A, train A -1P-11B, train B
Standard:	The Examinee places the control switches for component cooling pumps 1P-11A and 1P11B to the PULLOUT position prior to level in the CCW surge tank going off-scale low.
Evaluator Note:	**The Evaluator Cue is not required if the JPM is performed in the simulator.**
Evaluator Cue:	• The control switch for the component cooling pump, 1P-11A is in the PULLOUT position. • Both the green and red lights are off for the component cooling pump, 1P-11A. • The control switch for the component cooling pump, 1P-11B is in the PULLOUT position. • Both the green and red lights are off for the component cooling pump 1P-11B.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 12 **Critical Y (SEQ-4)**	Trip reactor and stabilize plant using EOPs while continuing with this procedure.
Standard:	The Examinee depresses both reactor trip pushbutton on 1C04 or C01 prior to the CCW surge tank level going off-scale low.
Evaluator Note:	**The Evaluator Cue is not required if the JPM is performed in the simulator.**
Evaluator Cue:	• Both reactor trip pushbuttons were depressed on either 1C04 or C01. • The green light is on and the red light is off for 1-52/RTA • The green light is on and the red light is off for 1-52/RTB • Both the green and red lights are off for 1-52/BYA • Both the green and red lights are off for 1-52/BYB • All rod bottom lights are lit. • All rod position indictors are on the bottom**.** • Neutron flux on 1N-35,1N-36 and 1N-40A is lowering.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

SIMULATOR SETUP:

Initial Setup:

- Load an IC where conditions support Unit 1 at 100% steady-state conditions.
- Load the preloads.
- Start the simulation.
- Allow the component cooling leak to progress to a point until the Annunciator 1T-12 CC SURGE TANK LEVEL HIGH OR LOW 1C03 1D lights; then freeze the simulator.
- Ensure the Blender Services/RMW Services tags are in their proper position on C01R.
- Walk down the control boards to ensure plant conditions accurately reflect the JPM's initial conditions.
- Make any necessary adjustments or corrections.
- Update documentation if required.
- Save to an IC for multiple use.

Multiple Use:

- Load the saved IC for this JPM. (IC-115)
- ENSURE the Blender Services/RMW Services tags are in their proper position on C01R.
- Walk down the control boards to ensure plant conditions accurately reflect the JPM's initial conditions.
- Make any necessary adjustments or corrections.
- Update documentation if required.
- Resave if required.

SIMULATOR INFORMATION:

Initiation Cue	Action or Component Description	Action Tagname	Malf. Value	Ramp Time	Delay Time	Trigger		Verification Performed	
						Event Criteri	Oper. Init. #	Ready	Inserted
Preload	AULILIARY BUILDING MAIN SUMP LEVEL HI (ON)	ANN-C01A-A11	ON						
Preload	FLEX LEAK AT HX-11A OUTLET	FLX-1CCW-013	180	60					
CCW surge tank level trends may be required for NRC record purposes.									

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 CO
- Unit 1 is at 100% steady-state conditions.
- The following indications/alarms have occurred:
  - Annunciator 1T-12 CC SURGE TANK LEVEL HIGH OR LOW 1C03 1D 3-6 is lit.
  - Annunciator AUXILIARY BUILDING –19 FT SUMP LEVEL HIGH C01A 1-11 is lit.
- CCW surge tank level is lowering.

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to respond to the indications/alarms, taking any corrective actions required in accordance with AOP 9B Unit 1, Component Cooling System Malfunction.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS		YES	NO	N/A
1.	Are all items on the signature page filled in correctly?	☐	☐	☐
2.	Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3.	Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4.	Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5.	Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6.	Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7.	If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8.	Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9.	Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10.	Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **MAKEUP TO RWST DURING LOSS OF CONTAINMENT SUMP RECIRCULATION**

JPM NUMBER: **JPM P000.036b.AOT** **REV.** **0 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P000.036.AOT / Add Makeup to RWST During Loss of Containment Sump Recirculation

K/A NUMBERS: 005 A4.05 (2.8/2.8), 006 A1.15 (3.3/3.9), E11 EA2.2 (3.4/4.2)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate / walkthrough: [X] Perform: [ ]

EVALUATION LOCATION: In-Plant: [X] Control Room: [ ]

Simulator: [ ] Other: [ ]

Lab: [ ]

Time for Completion: 30 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/RO/AO

Additional signatures may be added as needed.

Developed by: _____

Instructor Date

Validated by: _____

Validation Instructor Date
(See JPM Validation Checklist, Attachment 1)

Approved by: _____

Training Supervisor Date

JPM Number: **JPM P000.036b.AOT**

JPM Title: **MAKEUP TO RWST DURING LOSS OF CONTAINMENT SUMP RECIRCULATION**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Delete this table if not required

X Procedure adequately addresses task elements.

Enter Identifier here: **ECA-1.1 Unit 2, Loss of Containment Sump Recirculation, Rev. 31**

____ Other document adequately describes necessary task elements.

Enter Identifier here: _____

____ Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the PAB AO
- Unit 2 is shutdown due to a reactor coolant system leak inside containment.
- The crew is attempting to place RHR on containment sump recirculation.
- The Unit 2 RWST has been discharged to the containment.
- Fuel Transfer Canal is filled and Canal Doors are shut.

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to line-up to refill the Unit 2 RWST from the Fuel Transfer Canal using the Holdup Tank Recirculating Pump, P-9 in accordance with ECA-1.1 Unit 2, Loss of Containment Sump Recirculation, Attachment A, RWST Refill, Step A2.

JPM PERFORMANCE INFORMATION

Required Materials: ECA-1.1 Unit 2, Loss of Containment Sump Recirculation, Attachment A

General References: ECA-1.1 Unit 2, Loss of Containment Sump Recirculation

Task Standards: The Examinee refills the Unit 2 RWST from the fuel transfer canal using the Holdup Tank Recirculating Pump, P-9 in accordance with ECA-1.1 Unit 2, Loss of Containment Sump Recirculation, Attachment A, RWST Refill, Step A2.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step: 1 **Critical N (SEQ-1)**	Refill RWST From Fuel Transfer Canal Using Holdup Tank Recirculating Pump: - If fuel transfer canal not filled or transfer canal doors not shut, then go to step A3.
Standard:	The Examinee determines the status of the fuel transfer canal and transfer canal doors.
Evaluator Cue:	The fuel transfer canal is filled and the transfer canal doors are shut per the initial conditions of the JPM.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical N (SEQ-2)**	At MCC B-33, ensure P-9 CVCS HUT recirc pump breaker B52-334F on.
Standard:	The Examinee ensures that breaker B52-334F for P-9 CVCS HUT recirc pump at MCC B-33 is on.
Evaluator Cue:	The breaker B52-334F for P-9 CVCS HUT recirc pump at MCC B33 is in the on position.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical *Y (SEQ-2)**	If holdup tank recirculating pump P-9 is running, then locally stop the pump
Standard:	The examinee ensures the holdup tank recirculating pump, P-9, is secured.
Evaluator Note:	***If pump is found running, securing the pump is a critical task to prevent running it without a flowpath during later valve manipulations. If pump is found off, then this step is not critical.**
Evaluator Cue:	The red light is off for the holdup tank recirculating pump, P-9.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical Y (SEQ-3)**	Near the P-9 recirculation pump, ensure the following valves shut: -BS-1112, P-9 recirculation pump suction -BS-1109, P-9 recirculation pump discharge -BS-1119, spent fuel pool drain to T-8B CVCS holdup tank inlet -SF-785A, P-9 HUT recirc pump return to spent fuel pool -SF-785C, P-9 HUT recirc pump return to transfer canal
Standard:	The Examinee ensures the following valves are shut: • BS-1112, P-9 recirculation pump suction • BS-1109, P-9 recirculation pump discharge • BS-1119, spent fuel pool drain to T-8B CVCS holdup tank inlet • SF-785A, P-9 HUT recirc pump return to spent fuel pool • SF-785C, P-9 HUT recirc pump return to transfer canal
Evaluator Note:	**Note: The base of P-9 recirculation pump is potentially contaminated. Ensure appropriate radiological precautions are used if accessing the pump base.**
Evaluator Cue:	• BS-1112, P-9 recirculation pump suction valve operating handle is perpendicular to the pipe. • BS-1109, P-9 recirculation pump discharge valve operating handle is perpendicular to the pipe. • BS-1119, spent fuel pool drain to T-8B CVCS holdup tank inlet valve operating handle is perpendicular to the pipe. • SF-785A, P-9 HUT recirc pump return to spent fuel pool valve handwheel is rotated fully clockwise until the valve stem is fully inserted. • SF-785C, P-9 HUT recirc pump return to transfer canal valve handwheel is rotated fully clockwise until the valve stem is fully inserted.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical Y (SEQ-4)**	Locally open P-9 HUT recirc pump suction from transfer canal SF-785B
Standard:	The Examinee opens P-9 HUT recirc pump suction from transfer canal, SF-785B.
Evaluator Cue:	The P-9 HUT recirc pump suction from transfer canal, SF-785B handwheel is rotated counter-clockwise until the valve stem is fully extended.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 6 **Critical Y (SEQ-4)**	At PAB elevation 26' west of door 156, PAB to Unit 2 facade, open RWST boric acid inlet 2SI-828
Standard:	The Examinee opens the RWST boric acid inlet, 2SI-828.
Evaluator Cue:	The RWST boric acid inlet, 2SI-828 valve handwheel is rotated counter-clockwise until the valve stem is fully extended.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical Y (SEQ-5)**	Locally start holdup tank recirculating pump P-9.
Standard:	The Examinee starts the holdup tank recirculating pump, P-9.
Evaluator Cue:	• The holdup tank recirculating pump, P-9 start pushbutton is depressed. • The red light is on. • The pump is running with 60# discharge pressure.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 8 **Critical Y (SEQ-6)**	Throttle 2T-4 Volume Control Tank outlet valve 2CV-361A to establish holdup tank recirculation pump discharge pressure between 45 psig and 50 psig.
Standard:	The Examinee throttles 2T-4 Volume Control Tank outlet valve, 2CV-361A establishing holdup tank recirculation pump discharge pressure between 45 psig and 50 psig.
Evaluator Cue:	• The Volume Control Tank outlet valve 2CV-361A, is throttled. • The holdup tank recirculation pump discharge pressure indicates 47 psig.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 9 **Critical N (SEQ-7)**	Inform the Control Room that makeup to the Unit 2 RWST has commenced in accordance with ECA-1.1 Unit 2, Loss of Containment Sump Recirculation, Attachment A, RWST Refill, Step A2.
Standard:	The Examinee informs the Control Room that makeup to the Unit 2 RWST has commenced in accordance with ECA-1.1 Unit 2, Loss of Containment Sump Recirculation, Attachment A, RWST Refill, Step A2.
Evaluator Cue:	The Control Room acknowledges your report.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the PAB AO
- Unit 2 is shutdown due to a reactor coolant system leak inside containment.
- The crew is attempting to place RHR on containment sump recirculation.
- The Unit 2 RWST has been discharged to the containment.
- Fuel Transfer Canal is filled and Canal Doors are shut.

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to line-up to refill the Unit 2 RWST from the Fuel Transfer Canal using the Holdup Tank Recirculating Pump, P-9 in accordance with ECA-1.1 Unit 2, Loss of Containment Sump Recirculation, Attachment A, RWST Refill, Step A2.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS		YES	NO	N/A
1.	Are all items on the signature page filled in correctly?	☐	☐	☐
2.	Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3.	Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4.	Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5.	Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6.	Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7.	If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8.	Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9.	Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10.	Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **FAST START AN EMERGENCY DIESEL GENERATOR**

JPM NUMBER: **JPM P000.039cAOT** **REV.** **0 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P000.039.AOT / Fast Start and Emergency Diesel Generator

K/A NUMBERS: 064 A3.06 (3.3/3.4), 064 A4.01 (4.0/4.3) , 064 A4.06 (3.9/3.9)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate / walkthrough: [X] Perform: [ ]

EVALUATION LOCATION: In-Plant: [X] Control Room: [ ]

Simulator: [ ] Other: [ ]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path / Faulted: YES

TASK APPLICABILITY: SRO/RO/AO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **JPM P000.039cAOT**

JPM Title: **FAST START AN EMERGENCY DIESEL GENERATOR**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Delete this table if not required

X Procedure adequately addresses task elements.
Enter Identifier here: **ECA-0.0 UNIT 2, Loss of All AC Power, Rev. 40**

____ Other document adequately describes necessary task elements.
Enter Identifier here: _____

X Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Unit 2 Turbine Hall AO
- A loss of all AC has occurred on Unit 2.
- Emergency diesel generator G-03 failed to auto start and cannot be started from the Control Room.

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to perform ECA-0.0 Unit 2, Loss of All AC Power, Rev. 40, Attachment C, G-03 Local Manual Start, Steps C1 through C8.

JPM PERFORMANCE INFORMATION

Required Materials: ECA-0.0 Unit 2, Loss of All AC Power, Attachment C.

General References: ECA-0.0 Unit 2, Loss of All AC Power, Attachment C.

Task Standards: Emergency diesel generator G-03 is started and bus 2A-06 is energized in accordance with ECA-0.0 Unit 2, Loss of All AC Power

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step:1 **Critical N (SEQ-1)**	Dispatch Operator with Key Number 43 to G-03
Standard:	Examinee explains how to get key 43 and then goes to G-03 in diesel building.
Evaluator Note	**Key 43 will not actually need to be obtained but examinee should know that it is in the control room.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 2 **Critical N (SEQ-2)**	At D-28, Check 125 VDC Control Power greater than 105 VDC
Standard:	• The Examinee manipulates the voltmeter selector switch to the D-28 position at D-28. • The Examinee checks voltage greater than 105 VDC at D-28.
Evaluator Cue:	D-28 voltage is 121 VDC
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 3 **Critical N (SEQ-2)**	At panel C-101, check overspeed trip alarms clear.
Standard:	The Examinee checks Panel C-101 for Overspeed Trip Alarms – CLEAR.
Evaluator Cue:	Overspeed trip alarms are CLEAR.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 4 **Critical Y (SEQ-2)**	Auto Start G-03: At C-81, place local/remote switch to LOCAL
Standard:	The Examinee manipulates the local/remote switch at C-81 to the LOCAL position.
Evaluator Cue:	• The local/remote switch at C-81 is positioned to LOCAL. • The LOCAL amber light is lit and the REMOTE amber light is off for the local/remote switch at C-81. • Green light is lit for 2A52-87 at switch.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 5 **Critical N (SEQ-2)**	Ensure governor mode switch in AUTO
Standard:	The Examinee ensures that the governor mode switch at C-81 is in the AUTO position.
Evaluator Cue:	Governor made switch is in AUTO.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 6 **Critical *Y (SEQ-3)**	At C-81, depress SHUTDOWN RESET pushbutton.
Standard:	The Examinee depresses the SHUTDOWN RESET pushbutton at C-81.
Evaluator Note:	***The SHUTDOWN RESET pushbutton at C-81 must be depressed in either JPM Step 6 or Step 9.**
Evaluator Cue:	The SHUTDOWN RESET pushbutton at C-81 has been depressed.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 7 **Critical N (SEQ-3)**	Check G-03 running
Standard:	The Examinee checks the status of emergency diesel generator G-03.
Evaluator Cue:	• The emergency diesel generator G-03 tachometer reads zero. • There is no audible noise from the emergency diesel generator G-03.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 8 **Critical N (SEQ-3)**	At C-81, depress FAST START pushbutton.
Standard:	The Examinee depresses the FAST START pushbutton at C-81.
Evaluator Cue:	• The FAST START pushbutton at C-81 has been depressed. • The emergency diesel generator G-03 tachometer reads zero. • There is no audible noise from the emergency diesel generator G-03.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 9 **Critical *Y (SEQ-4)**	If G-03 did not fast start, then manually start G-03: - At C-81, depress SHUTDOWN RESET pushbutton.
Standard:	The Examinee depresses the SHUTDOWN RESET pushbutton at C-81.
Evaluator Note:	***The SHUTDOWN RESET pushbutton at C-81 must be depressed in either JPM Step 6 or step 9.**
Evaluator Cue:	The SHUTDOWN RESET pushbutton at C-81 has been depressed.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 10 **Critical N (SEQ-4)**	At C-81, depress VOLTAGE SHUTDOWN RESET pushbutton.
Standard:	The Examinee depresses the VOLTAGE SHUTDOWN RESET pushbutton at C-81.
Evaluator Cue:	The VOLTAGE SHUTDOWN RESET pushbutton at C-81 has been depressed.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 11 **Critical N (SEQ-4)**	At C-81, depresses ALARM RESET pushbutton.
Standard:	The Examinee depresses the ALARM RESET pushbutton at C-81.
Evaluator Cue:	The ALARM RESET pushbutton at C-81 has been depressed.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 12 **Critical Y (SEQ-5)**	At C-81, place governor mode switch to HYD.
Standard:	The Examinee manipulates the governor mode switch at C-81 to the HYD position.
Evaluator Cue:	• The governor mode switch at C-81 is positioned to HYD. • The emergency diesel generator G-03 tachometer reads zero. • There is no audible noise from the emergency diesel generator G-03.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 13 **Critical Y (SEQ-5)**	If G-03 is not running, then depress FAST START pushbutton.
Standard:	• The Examinee depresses the FAST START pushbutton at C-81. • The emergency diesel generator G-03 starts and comes up to 900 rpm.
Evaluator Cue:	• The FAST START pushbutton has been depressed. • The emergency diesel generator G-03 tachometer reads 900 rpm. • There is audible noise from the emergency diesel generator G-03. • The 50/100/600/850 white lights extinguish sequentially.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 14 **Critical N (SEQ-6)**	At C-81, depress ALARM RESET pushbutton
Standard:	The Examinee depresses the ALARM RESET pushbutton at C-81.
Evaluator Cue:	The ALARM RESET pushbutton at C-81 has been depressed.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 15 **Critical N (SEQ-7)**	Check G-03 frequency between 59.5 HZ and 60.5 HZ
Standard:	The Examinee checks emergency diesel generator G-03 frequency at C-81.
Evaluator Cue:	The emergency diesel generator G-03 frequency is as indicated or 58Hz (less than required range)
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 16 **Critical Y (SEQ-7)**	If field is not flashed, then at C-81, depress Voltage Shutdown Reset pushbutton.
Standard:	The Examinee depresses the VOLTAGE SHUTDOWN RESET pushbutton at C-81.
Evaluator Note:	• **Initially, there is no voltage indicated on the Diesel generator voltmeter.** • **There is no voltage indication on the RUNNING or INCOMING voltmeters at this time (sync switch remains in off).**
Evaluator Cue:	• Initially, indicated generator voltage is 0 • VOLTAGE SHUTDOWN RESET pushbutton has been depressed.(This will flash the field) • Frequency meter indicates 60 Hz • Generator voltage rises to 4160V
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step:17 **Critical N (SEQ-7)**	At C-81, ensure governor mode switch in HYD, then adjust frequency using the hydraulic governor control switch
Standard:	Examinee should ensure that governor mode selector switch is in HYD and verify that frequency is between 59.5 Hz and 60.5 Hz
Evaluator Cue:	Frequency is 60 Hz
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 18 **Critical N (SEQ-7)**	Check G-03 voltage between 4050 VAC and 4300 VAC.
Standard:	The Examinee checks emergency diesel generator G-03 voltage at C-81.
Evaluator Cue:	The emergency diesel generator G-03 voltage is 4160 VAC.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 19 **Critical N (SEQ-7)**	Energize Bus 2A-06 From Alternate Supply G-03: Check G-03 running
Standard:	The Examinee checks the status of emergency diesel generator G-03.
Evaluator Cue:	• The emergency diesel generator G-03 tachometer reads 900 rpm. • There is audible noise from the emergency diesel generator G-03. • Emergency diesel generator G-03 frequency is 60.0 HZ. • Emergency diesel generator G-03 voltage is 4160 VAC.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 20 **Critical N (SEQ-7)**	Locally ensure 2A-04 to 2A-06 bus tie breaker open: 2A52-96
Standard:	The Examinee ensures that the 2A-04 to 2A-06 bus tie breaker 2A52-96 is open at the cubicle for 2A52-96.
Evaluator Cue:	The green light is lit and red light is off for 2A-04 to 2A-06 bus tie breaker 2A52-96
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 21 **Critical N (SEQ-7)**	Locally ensure G-04 to 2A-06 bus tie breaker control switch open and in pullout: 2A52-93
Standard:	The Examinee ensures that the emergency diesel generator G-04 to 1A-06 bus tie breaker control switch 2A52-93 is open and in pullout at C-82.
Evaluator Cue:	• The emergency diesel generator G-04 to 2A-06 bus tie breaker control switch 2A52-93 is in pullout. • The green light is off and red light is off for the emergency diesel generator G-04 to 2A-06 bus tie breaker at the C-82 control switch, because the LOCAL/REMOTE control switch is in REMOTE.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 22 **Critical Y (SEQ-7)**	Locally unlock and place G-03 to bus 2A-06 breaker control switch in Auto: 2A52-87
Standard:	The Examinee unlocks and places the emergency diesel generator G-03 to bus 2A-06 breaker control switch 2A52-87 in the auto position at C-81.
Evaluator Cue:	The emergency diesel generator G-03 to bus 2A-06 breaker control switch 2A52-87 is in the auto position.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 23 **Critical N (SEQ-7)**	Locally check G-03 to bus 2A-06 breaker closed: 2A52-87
Standard:	The Examinee checks that the emergency diesel generator G-03 to bus 2A-06 breaker 2A52-87 is closed at C-81.
Evaluator Cue:	The green light is off and the red light is on for the emergency diesel generator G-03 to bus 2A-06 breaker.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 24 **Critical N (SEQ-8)**	Inform the Control Room that ECA-0.0 Unit 2, Loss of All AC Power, Rev. 40, Attachment C, G-03 Local Manual Start, Steps C1 through C8 have been completed and emergency diesel generator G-03 is running and the output breaker is closed on to bus 2A-06.
Standard:	The Examinee informs the Control Room that ECA-0.0 Unit 2, Loss of All AC Power, Rev. 40, Attachment C, G-03 Local Manual Start, Steps C1 through C8 have been completed and emergency diesel generator G-03 is running and its' output breaker is closed on to bus 2A-06.
Evaluator Cue:	The Control Room acknowledges your report.
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 2 Turbine Hall AO
- A loss of all AC has occurred on Unit 2.
- Emergency diesel generator G-03 failed to auto start and cannot be started from the Control Room.

INITIATING CUES (IF APPLICABLE):

- The SRO directs you to perform ECA-0.0 Unit 2, Loss of All AC Power, Rev. 40, Attachment C, G-03 Local Manual Start, Steps C1 through C8.

JPM P000.039cAOT, Fast Start an Emergency Diesel Generator, Rev.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date
Historical Record: (Optional)

NMC Committed to Nuclear Excellence

JOB PERFORMANCE MEASURE (JPM)

SITE: **Point Beach Nuclear Plant**

JPM TITLE: **PERFORM CCW HX ALIGNMENT DURING LOSS OF SHUTDOWN COOLING**

JPM NUMBER: **P008.003.AOT** **REV.** **0 Draft**

RELATED PRA INFORMATION: **None**

TASK NUMBER(S) / TASK TITLE(S): P008.003.AOT / Operate CCW HXs in Different Combinations

K/A NUMBERS: 026.AK3.03 (4.0/4.2), 026.AA1.05 (3.1/3.1)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [X] Perform: [ ]

EVALUATION LOCATION: In-Plant: [X] Control Room: [ ]

Simulator: [ ] Other: [ ]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/RO/AO

Additional signatures may be added as needed.

Developed by:		
	Instructor	Date
Validated by:		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:		
	Training Supervisor	Date

JPM Number: **P008.003.AOT**

JPM Title: **PERFORM CCW HX ALIGNMENT DURING LOSS OF SHUTDOWN COOLING**

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

_X_ Procedure adequately addresses task elements.
Enter Identifier here: Unit 2 SEP-2.1, Attachment A, Rev. 11

____ Other document adequately describes necessary task elements.
Enter Identifier here: _____

_X_ Task elements described as attached.

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate actions steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the PAB operator.
- 2HX-12D CC HX has been removed from service and danger tagged.
- During a forced shutdown, Unit 2 experienced a Loss of Coolant Accident.
- The operating crew is currently implementing Unit 2 SEP-2.1, Shutdown LOCA with RHR aligned for Low Head Injection.
- While monitoring plant conditions, you observe a through-wall leak on the on the tube side of HX-12C.
- The TSC has determined the need to perform Unit 2 SEP-2.1, Attachment A. HX-12C is to be considered unavailable and is to be isolated.
- Unit 1 CCW is aligned to 1HX-12A (Normal Alignment).

INITIATING CUES (IF APPLICABLE):

- The SRO has directed you to perform the actions of Unit 2 SEP-2.1, Attachment A, Steps A3 and A4.
- "A" train of RHR is operable for Decay Heat Removal and 2CC-824A has been adjusted to 30º. (Steps A1 and A2 are complete.)

JPM PERFORMANCE INFORMATION

Required Materials: Unit 2 SEP-2.1 Shutdown LOCA with RHR Aligned for Low-Head Injection, Attachment A

General References: Unit 2 SEP-2.1 Shutdown LOCA with RHR Aligned for Low-Head Injection

Task Standards: HX-12B, B CCW HX aligned to Unit 2
AND
Service Water DP across B CCW HX adjusted to 3 PSID.

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Start Time: _____

Performance Step:1 Critical N (SEQ-1)	Verify Component Cooling Heat Exchangers Alignment: Ensure at least one component cooling heat exchanger aligned to Unit 2. -HX-12C -2HX-12D
Standard:	The Examinee determines that HX-12C is to be removed from service and 2HX-12D is out of service per the initial conditions.
Evaluator Cue:	Examinee may contact Control Room for desired heat exchanger alignment. If so, remind examinee that "D" HX is out of service and "C" HX is leaking and is to be isolated.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:2 **Critical Y (SEQ-2)**	IF heat exchanger HX-12C OR 2HX-12D can NOT be aligned, THEN locally align heat exchanger HX-12B: Shut HX-12B CC Hx inlet from Unit 1, 1CC-726B
Standard:	The Examinee shuts valve 1CC-726B by rotating the handwheel clockwise until valve stem is inserted and handwheel no longer turns.
Evaluator Cue:	1CC-726B valve stem is inserted and there is no further handwheel movement in the clockwise direction.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 3 **Critical Y (SEQ-2)**	Shut HX-12B CC Hx outlet to Unit 1, 1CC-728B
Standard:	The Examinee shuts valve 1CC-728B by rotating the handwheel clockwise until valve stem is inserted and handwheel no longer turns.
Evaluator Cue:	1CC-728B valve stem is inserted and there is no further handwheel movement in the clockwise direction.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 4 **Critical Y (SEQ-3)**	Open HX-12B CC Hx outlet to Unit 2, 2CC-728B
Standard:	The Examinee opens valve 2CC-728B by rotating the handwheel counter-clockwise until valve stem is extended and handwheel no longer turns.
Evaluator Cue:	2CC-728B valve stem is extended and there is no further movement in the counter-clockwise direction.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 5 **Critical Y (SEQ-3)**	Open HX-12B CC HX inlet from Unit 2, 2CC-726B
Standard:	The Examinee opens valve 2CC-726B by rotating the handwheel counter-clockwise until valve stem is extended and handwheel no longer turns.
Evaluator Cue:	2CC-726B valve stem is extended and there is no further movement in the counter-clockwise direction.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 6 **Critical Y (SEQ-4)**	Shut 1HX-12C CC HX inlet from Unit 2, 2CC-726C
Standard:	The Examinee shuts 2CC-726C by rotating the handwheel in the clockwise direction.
Evaluator Cue:	2CC-726C valve stem is inserted and there is no further handwheel movement in the clockwise direction.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 7 **Critical N (SEQ-4)**	Shut 2HX-12D CC Hx Inlet from 2P-11A/B, 2CC-726D
Standard:	The Examinee verifies 2CC-726D shut by verifying valve stem is inserted.
Evaluator Note:	**The valve 2CC-726D will be simulated as Danger Tagged per the initial conditions. The valve must be verified shut by stem position as NP 1.9.15 Tagging Procedure allows checking a shut valve shut only in special circumstances.**
Evaluator Cue:	2CC-726D valve stem is inserted.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 8 **Critical Y (SEQ-4)**	Shut HX-12C CC HX outlet, 2CC-728C
Standard:	The Examinee shuts 2CC-728C by rotating the handwheel in the clockwise direction.
Evaluator Cue:	2CC-728C valve stem is inserted and there is no further handwheel movement in the clockwise direction.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 9 **Critical N(SEQ-4)**	Shut 2HX-12D CC Hx outlet, 2CC-728D
Standard:	The Examinee verifies 2CC-728D shut by verifying valve stem is inserted.
Evaluator Note:	**The valve 2CC-728D will be simulated as Danger Tagged per the initial conditions. The valve must be verified shut by stem position as NP 1.9.15 Tagging Procedure allows checking a shut valve shut only in special circumstances.**
Evaluator Cue:	2CC-728D valve stem is inserted.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 10 **Critical Y (SEQ-5)**	Locally Adjust Service Water Flow: IF two component cooling heat exchangers… IF only one component cooling heat exchanger aligned to Unit 2, THEN establish 3 psid service water flow to aligned heat exchanger. **-SW-360, DPIS-2937 for HX-12B** -SW-315, DPIS-2936 for HX-12C -2SW-307, 2DPIS-4445 for 2HX-12D
Standard:	The Examinee throttles open SW-360 by turning valve counter-clockwise to establish 3 PSID SW DP across HX-12B.
Evaluator Note:	**SW-360 is a large valve and may require a valve assist tool to unseat. Do not indicate DP until Examinee looks at the DPIS and/or asks for DP. Ensure Examinee is looking at correct DPIS when adjusting SW-360.**
Evaluator Cue:	SW-360 moves in the counter-clockwise direction slightly, DPIS-2937 reads 3 psid.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step: 11 **Critical N (SEQ-6)**	Inform SRO of completion of steps A3 and A4 of Unit 2 SEP-2.1, Attachment A
Standard:	The Examinee contacts the SRO and reports that B CCW HX is aligned to Unit 2 with 3 PSID of Service Water.
Evaluator Cue:	The SRO Acknowledges your report.
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **The evolution is complete.**

Stop Time: _____

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the PAB operator.
- 2HX-12D CC HX has been removed from service and danger tagged.
- During a forced shutdown, Unit 2 experienced a Loss of Coolant Accident.
- The operating crew is currently implementing Unit 2 SEP-2.1, Shutdown LOCA with RHR aligned for Low Head Injection.
- While monitoring plant conditions, you observe a through-wall leak on the on the tube side of HX-12C.
- The TSC has determined the need to perform Unit 2 SEP-2.1, Attachment A. HX-12C is to be considered unavailable and is to be isolated.
- Unit 1 CCW is aligned to 1HX-12A (Normal Alignment).

INITIATING CUES (IF APPLICABLE):

- The SRO has directed you to perform the actions of Unit 2 SEP-2.1, Attachment A, Steps A3 and A4.
- "A" train of RHR is operable for Decay Heat Removal and 2CC-824A has been adjusted to 30º. (Steps A1 and A2 are complete.)

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date