JPM TITLE: **RESET A RECIRC MG SCOOP TUBE LOCKUP**

JPM NUMBER: **202002-02** **REV. 17**

TASK NUMBER(S) / TASK TITLE(S): **12.11 RESET SCOOP TUBE LOCKUP**

K/A NUMBERS: **202002 A2.05** **K/A VALUE: 3.1 / 3.1**

Justification (FOR K/A VALUES <3.0):

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☐ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** ____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]
Simulator: [X] Other: [ ]
Lab: [ ]

Time for Completion: 10 Minutes Time Critical: NO

Alternate Path [NRC]: NO
Alternate Path [INPO]: NO

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

Protected Content: NONE

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR#	PREPARER SUPERVISOR	DATE DATE
Rev. 14	Revised for 2013 LOCT Annual Operating Exam. Placed on new form TR-AA-230-1003-F10 (NOT used nor validated)				
Rev. 15	Revised for 2014 LOCT Biennial Operating Exam.			COVER SHEET COVER SHEET	
Rev. 16	Updated JPM to current revision and updated critical steps.			Scott Anderson	04/07/16
Rev. 17	Updated JPM to current revision and updated steps			Adam Beaumier	

SIMULATOR SET-UP:

SIMULATOR SETUP INSTRUCTIONS:

1. Reset to snapshot IC
2. If snapshot IC is not available then perform the following:
   - Reset to IC 20 and place in RUN (other two-loop high power ICs are acceptable, but validate first)
   - Insert Malfunction RR17a as specified in the table, then delete at 10 seconds
   - Allow power and level to stabilize and then insert control rods in reverse sequence to lower load line to approximately 100%
   - The setup may now be saved as an IC or snapshot for repeated use
3. Verify SIC9245A & B to display “S”
4. Clear DEV ALRM by depressing the ACK soft key
5. Clear recorders by pressing the button behind 1C05 OR using the SCHEDULE FILE. (perform for each use of the JPM)
6. Circle slash steps in 1C04A (C-5) including: 2.2, 3.1, 3.3, 3.4 (note positions in turnover), 3.5a,b, 3.6, 4.1. Only circle the following: 3.2, 3.7, 4.2.

SIMULATOR MALFUNCTIONS:

Key	Description	Delay	Inserted	Ramp	Initial	Value	Final
rr17a	**RECIRC M-G FLOW CTRLR FAILS, AUTO/MAN MODES- M-G A** **(VERIFY DELETE IN 10 SECONDS)**	**00:00:00** **Delete in 10 sec.**		**00:00:00**		**AS IS**	**50**

SIMULATOR OVERRIDES: None

SIMULATOR REMOTE FUNCTIONS: None

Required Materials: OI 264, Reactor Recirculation System

General References:

1. OI 264, Rev. 139
2. ARP 1C04A , Rev. 63

Task Standards:

1. Adjust Setpoint S-% to approximately match the Scoop Tube Position P-%
2. Reset scoop tube lock by momentarily placing handswitch B31A-S3A to RESET

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:

The initial conditions that I read may not **exactly** match the simulator setup, assume that the conditions that I read you are **the correct** plant conditions.

- Reactor power is at approximately 95%
- "A" Recirc MG set scoop tube locked up when "A" Recirc pump speed changed due a problem in the positioner controller
- ARP 1C04A (C-5) has been completed
  - The following parameters values have been recorded (the following values are approximate):
    1. P (Percent Position) 60.0
    2. S (Setpoint) – 78.0
    3. V (Controller Output) – 77.8
    4. X (Percent speed) – 87.0
    5. Pump discharge flow – 25 kgpm
  - The local scoop tube positioner power switch has been verified ON
  - The scoop tube positioner overloads have been verified RESET (they were not tripped)
  - The cause has been determined to be a test lead left loose in the positioner controller. The lead has been removed, the positioner verified satisfactory, and CR written

INITIATING CUES (IF APPLICABLE):

- The CRS directs you to reset the "A" Recirc MG set scoop tube lockout

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step: **Critical N (SEQ-1)** OI 264, Step 10.2, NOTE	**NOTE** **Any parameter (P, S, V or X) may be selected for digital display; however, controller adjustments using the control knob can only be made when SETPOINT (S) is selected.** **During a reset from a scoop tube lockout / deviation lockup condition, annunciator (1C08A C-8, [1C08A B-8]) inverter overload alarm may be received.**
Standard:	**The Operator reviews and placekeeps NOTE**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: **Critical N (SEQ-2)** OI 264, Step 10.2, CRS	**CONTINUOUS RECHECK STATEMENT** **IF Recirc MG speed becomes unstable during this procedure, THEN immediately relock the scoop tube by momentarily placing the A[B] SCOOP TUBE CONTROL hand switch on 1C04 to the LOCKED position.**
Standard:	**The Operator reviews and placekeeps CONTINUOUS RECHECK STATEMENT**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N (SEQ-3)** OI 264, Step 10.2, (1)	**If A[B] Recirc MG is running with either a 20% or 45% Runback in effect, then perform ARP 1C04A, D-2 [D-8] prior to resetting the Scoop Tube Lockout.**
Standard:	**The Operator determines that a Runback signal does not need to be reset (Initial Conditions stated that problem was the Positioner controller), and marks step N/A.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N (SEQ-4)** OI 264, Step 10.2, NOTE	**NOTE** **If the scoop tube lockout was the result of a deviation alarm, "DEV ALRM" will be flashing on the second display line, and the (L) & (S) led's will be flashing on SIC9245A[B].**
Standard:	**The Operator reviews and placekeeps NOTE.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N (SEQ-5)** OI 264, Step 10.2, (2) (a) – (f)	**If a DEV ALRM is flashing on SIC9245A[B], clear the DEV ALRM by performing the following, otherwise N/A:** **(a) Press the Acknowledge button (ACK) on SIC9245A[B].** **(b) Verify the DEV ALRM clears on the second display line, and the (L) & (S) led's stop flashing but remain lit.** **(c) Verify Scoop Tube Position P-%.** **(d) Adjust Setpoint S-% to be less than P-%.** **(e) Verify the (L) & (S) led's clear.** **(f) Proceed to either following step (3) or (5) as applicable to reset the scoop tube lockout.**
Standard:	**The Operator determines that a DEV ALRM is NOT flashing and N/A's the entire step.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N (SEQ-6)** OI 264, Step 10.2, (3) NOTE	**NOTE** **For low core flow or single loop operation conditions (i.e., < 27 Mlbm/hr), Core Plate dP can be obtained from PDR/FR-4528. The Core Flow vs. Core Plate dP graph should be used to determine core flow in Mlbm/hr. (Reference Appendix B in STP 3.4.1-02).**
Standard:	**The Operator reviews and placekeeps NOTE.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N (SEQ-7)** OI 264, Step 10.2, (3) (a)	**If A[B] Recirc MG Set is running, reset the Scoop Tube Lockout as follows:** **(a) Verify Scoop Tube Position P-%.**
Standard:	**The Operator verifies Scoop Tube Position P-%.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical Y (SEQ-8)** OI 264, Step 10.2, (3) (b)	**(b) Adjust setpoint S-% to approximately match Scoop Tube Position P-%.**
Standard:	**The Operator adjusts Setpoint S-% to approximately match Scoop Tube Position P-%.**
Evaluator Note:	**The Operator has to adjust the Setpoint to scoop tube Position within ±4.6% in order to prevent another scoop tube lockout. "S" should be adjusted to exactly match "P" but may be ±0.1%.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N (SEQ-9)** OI 264, Step 10.2, (3) (c)	**(c) Verify controller output V-% approximately matches Scoop Tube Position P-%.**
Standard:	**The Operator depresses the "D" key until "V" is displayed and verifies controller output V-% approximately matches Scoop Tube Position P-%.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical Y (SEQ-10)** OI 264, Step 10.2, (3) (d)	**(d) At 1C04, reset scoop tube lock by momentarily placing handswitch B31A-S3A[B] to RESET and then verify the following:**
Standard:	**The Operator resets the scoop tube lock by momentarily placing handswitch B31A-S3A to RESET.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N (SEQ-11)** OI 264, Step 10.2, (3) (e)	**(e) Annunciator 1C04A, C-5[1C04B, C-2], "A[B] RECIRC MG SCOOP TUBE LOCK" resets.**
Standard:	**The Operator verifies Annunciator 1C04A, C-5, "A RECIRC MG SCOOP TUBE LOCK" resets.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N (SEQ-12)** OI 264, Step 10.2, (3) (f)	**(f) Amber SCOOP TUBE LOCKED Light located at 1C04 (above A[B] Scoop Tube Control handswitch B31A-S3A[B]) is OFF.**
Standard:	**The Operator verifies Amber SCOOP TUBE LOCKED Light located at 1C04 (above A Scoop Tube Control handswitch B31A-S3A) is OFF.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N (SEQ-13)** OI 264, Step 10.2, (3) (g)	**Verify that the Recirc pump speed is stable by observing the following parameters:** • **SETPOINT (S)** • **Percent Position (P)** • **Percent Speed (X)** • **Recirc pump discharge flow** • **Total core flow** • **Core pressure drop** • **APRM readings**
Standard:	**The Operator verifies that the Recirc pump speed is stable by observing the following parameters:** • **SETPOINT (S)** • **Percent Position (P)** • **Percent Speed (X)** • **Recirc pump discharge flow** • **Total core flow** • **Core pressure drop** • **APRM readings**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: **Critical N (SEQ-14)** OI 264, Step 10.2, (3) (h)	**Verify that SETPOINT (S) is selected for digital display.**
Standard:	**The Operator verifies that SETPOINT (S) is selected for digital display.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 15 **Critical N** OI 264, Step 10.2, (4)	**Restore reactor power per CRS/OSM direction.**
Standard:	**The Operator informs the CRS that the scoop tube lockout is reset and/or requests direction for restoring power.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: When direction for restoring Reactor power is requested, inform the Operator that the JPM is complete.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

The initial conditions that I read may not **exactly** match the simulator setup, assume that the conditions that I read you are **the correct** plant conditions.

- Reactor power is at approximately 95%
- "A" Recirc MG set scoop tube locked up when "A" Recirc pump speed changed due a problem in the positioner controller
- ARP 1C04A (C-5) has been completed
  - The following parameters values have been recorded (the following values are approximate):
    6. P (Percent Position) 60.0
    7. S (Setpoint) – 78.0
    8. V (Controller Output) – 77.8
    9. X (Percent speed) – 87.0
    10. Pump discharge flow – 25 kgpm
  - The local scoop tube positioner power switch has been verified ON
  - The scoop tube positioner overloads have been verified RESET (they were not tripped)
  - The cause has been determined to be a test lead left loose in the positioner controller. The lead has been removed, the positioner verified satisfactory, and CR written

INITIATING CUES (IF APPLICABLE):

- The CRS directs you to reset the "A" Recirc MG set scoop tube lockout

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM TITLE: **INITIATE LPCI FOLLOWING SHUTDOWN COOLING ISOLATION SIGNAL**

JPM NUMBER: **205000-02** **REV. 10**

TASK NUMBER(S) / TASK TITLE(S): **2.17 PERFORM LPCI INITIATION WHILE IN SDC**

K/A NUMBERS: **205000** **K/A VALUE: A2.05 3.5 / 3.7**

Justification (FOR K/A VALUES <3.0):

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☐ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** ____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]
Simulator: [X] Other: [ ]
Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path [NRC]: NO
Alternate Path [INPO]: NO

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

Protected Content: (CAPRs, corrective actions, licensing commitments, etc. associated with this material)

{C001}

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR#	PREPARER SUPERVISOR	DATE DATE
Rev. 9					
Rev. 10	Update to form and admin changes	17-1 LOIT NRC Exam		Beaumier	

SIMULATOR SET-UP: *(Only required for simulator JPMs)*

SIMULATOR SETUP INSTRUCTIONS:

1. Set up in any MODE 4 IC with the “B” RHR Loop in Shutdown Cooling per OI-149.
2. Verify that no LPCI Initiation signal is present.
3. Verify that there is no RPV injection from the Condensate and Feed System.
4. Verify that the following pumps are secured and hang Warning Tags on their handswitches (also override their indicating lights):
    - ”A” Core Spray Pump
    - ”B” Core Spray Pump
    - Manually drive in the ”A” and ”B” Core Spray Trip/overload Annunciators to simulate breaker racked down
5. Secure the running CRD pump.
6. Use RWCU (Defeat is needed) and MO-1936 and MO-1937 (which isolate at 170″) and RWCU as necessary to drain the RPV to <119.5 inches. Should be about 100 inches on the Yarways at the start of the JPM.
7. Verify that LPCI LOOP Select has occurred.
8. Close RHR Loop “B” Ht Exh Bypass valve MO-1940.
9. Ensure MO-1935 “B” MIN FLOW BYPASS is energized.
10. Ensure that both MO-1920 D PUMP SHUTDOWN CLG SUCTION and MO-1912 B SHUTDOWN CLG SUCTION are both open.
11. Verify that MO-1939 B HX INLET is throttled open to allow 4000gpm.
12. Shut MSIVs and MSIV drains.

SIMULATOR MALFUNCTIONS: NONE

SIMULATOR OVERRIDES:

Key	Description	Delay	Inserted	Ramp	Initial	Value	Final
DI-RH-088	HS-2010 CROSS HEADER MOV-2010	00:00:00		00:00:00		OPEN	CLOSE
DO-CS-003	HS-2103(1) PUMP 1P- 211A (WHITE)	00:00:00		00:00:00		ON	OFF
DO-CS-004	HS-2103(2) PUMP 1P- 211A (GREEN)	00:00:00		00:00:00		OFF	OFF
DO-CS-005	HS-2103(3) PUMP 1P- 211A (AMBER)	00:00:00		00:00:00		OFF	OFF
DO-CS-006	HS-2103(4) PUMP 1P- 211A (RED)	00:00:00		00:00:00		ON	OFF
DI-CS-008	HS-2103 PUMP 1P-211A	00:00:00		00:00:00		NASP	NASP
DI-CS-017	HS-2123 PUMP 1P-211B	00:00:00		00:00:00		NASP	NASP
DI-RH-092	HA-2014 RHR PUMP 1P-229A	00:00:00		00:00:00		NASP	NASP
DI-RH-095	HA-2014 RHR PUMP 1P-229C	00:00:00		00:00:00		NASP	NASP
DO-CS-020	HS-2123(1) PUMP 1P- 211B (WHITE)	00:00:00		00:00:00		ON	OFF
DO-CS-021	HS-2123(2) PUMP 1P- 211B (GREEN)	00:00:00		00:00:00		OFF	OFF
DO-CS-022	HS-2123(3) PUMP 1P- 211B (AMBER)	00:00:00		00:00:00		OFF	OFF
DO-CS-023	HS-2123(4) PUMP 1P- 211B (RED)	00:00:00		00:00:00		ON	OFF

SIMULATOR REMOTE FUNCTIONS:

Key	Description	Delay	Inserted	Ramp	Initial	Value	Final
cs03	MANUAL OPER OF “A” CS PUMP (1P-211A BREKER)	00:00:00		00:00:00		NORM	OPEN
cs04	MANUAL OPER OF “B” CS PUMP (1P-211B BREKER)	00:00:00		00:00:00		NORM	OPEN

Required Materials: Keys for keylocked switches

OI 149, Section 5.2.

General References: OI 149, Rev. 161.

Task Standards:

1. MO-1905 isolation signal is reset.
2. MO-1912 and MO-1920 are closed.
3. MO-1913 and MO-1921 are open.
4. RHR pump(s) are started.

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:

- The plant is in Mode 4.
- Shutdown cooling was in operation with "B" RHR loop.
- The following systems are unavailable:
  - Both Core Spray pumps
  - Condensate system
  - CRD pumps
- The reactor was inadvertently drained and the drain down has been stopped.
- Another operator has emergency cleared SDC tags and MO-1935 MIN FLOW BYPASS has been re-energized in preparation for injection with RHR.

INITIATING CUES (IF APPLICABLE):

- The CRS directs you to line up and restore RPV level to greater than 170" with RHR in the LPCI mode of operation.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step: 1 **Critical N** OI 149, Section 5.2, Subsection 5.2.1, Step (1)	Verify MO-1908 and MO-1909 INBD and OUTBD SHUTDOWN CLG ISOL valves on 1C03, CLOSED.
Standard:	MO-1908 and 1909 are closed (green indicating lights lit).
Evaluator Note:	**Student begins at Section 5.2 of OI 149**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	

Performance Step: 2 **Critical Y** OI 149, Section 5.2, Subsection 5.2.1, Step (2)	When MO-1908 and MO-1909 are fully closed, reset MO-1905 and 2003 isolation signal by depressing MO-1905 and 2003 GROUP 4 ISOL SEALED-IN reset pushbuttons HS-1905B and HS-2003B on 1C03.
Standard:	Depresses HS-1905B and HS-2003B GROUP 4 ISOL SEALED-IN reset pushbuttons.
Evaluator Note:	**Student should also verify that the associated amber light is off.** **Depressing HS-2003B is not critical because the "A" RHR Loop is not being aligned.** **If the student does not depress HS-2003B per the procedure step it is not a critical step failure, but, it should made note in a comment.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 3 **Critical Y** OI 149, Section 5.2, Subsection 5.2.1, Step (3)	Close RHR Pump Shutdown Cooling Suction Valves on 1C03: Valve Description Position **Loop A:** MO 2011 A PUMP SHUTDOWN CLG SUCTION CLOSE MO 2016 C PUMP SHUTDOWN CLG SUCTION CLOSE **Loop B:** MO 1912 B PUMP SHUTDOWN CLG SUCTION CLOSE MO 1920 D PUMP SHUTDOWN CLG SUCTION CLOSE
Standard:	Closes MO-1912 and MO-1920.
Evaluator Note:	**Student may close these valves one at a time or concurrently.** **Since the B loop was previously in SDC the MO-1912 and MO-1920 valves would have to be closed.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 4 **Critical Y** OI 149, Section 5.2, Subsection 5.2.1, Step (4)	Open the RHR Pump Torus suction valves on 1C03 for the loop that was in Shutdown Cooling: Valve Description Position **Loop A:** MO 2012 A PUMP TORUS SUCTION OPEN MO 2015 C PUMP TORUS SUCTION OPEN **Loop B:** MO 1913 B PUMP TORUS SUCTION OPEN MO 1921 D PUMP TORUS SUCTION OPEN
Standard:	Opens MO-1913 and MO-1921.
Evaluator Note:	**Since the B loop was previously in SDC the MO-1913 and MO-1921 valves would have to be opened.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 5 **Critical N** OI 149, Section 5.2, Subsection 5.2.1, CAUTION prior to Step (5)	**CAUTION** V-19-48 RHR LOOP CROSSTIE may be difficult to open during LOCA conditions due to environmental and radiological hazards. It should only be opened to ensure adequate core cooling.
Standard:	Reads and placekeeps the CAUTION
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 6 **Critical N** OI 149, Section 5.2, Subsection 5.2.1, Step (5)	If necessary to align available RHR pumps with an available injection path, then open the applicable RHR Cross-Tie valve: Valve / Description / Position V-19-48 / RHR LOOP CROSSTIE / OPEN MO-2010 / RHR CROSSTIE / OPEN
Standard:	The operator can restore level without opening MO-2010.
Evaluator Note:	**MO-2010 is failed closed.**
Comments:	_____

Performance Step: 7 **Critical Y** OI 149, Section 5.2, Subsection 5.2.1, Step (6)	Align an injection path to the RPV as follows: If LPCI Loop Select has selected a loop, confirm injection valves have automatically opened. If LPCI Loop Select has NOT selected a loop, manually align the LPCI inject path by opening MO-2003[1905].
Standard:	Confirms inject valves for 'B' RHR are open.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 8 **Critical Y** OI 149, Section 5.2, Subsection 5.2.1, Step (7)	Start A and C [B and D] RHR PUMP 1P 229A and C [B and D] by placing the associated handswitch on 1C03 in STOP and then to the START position: Handswitch — Description HS 2014 [1915] — A[B] RHR PUMP 1P 229A[B] HS 2018 [1923] — C[D] RHR PUMP 1P 229C[D]
Standard:	Starts at least 1 RHR pump.
Evaluator Note:	**Since there is no leak, one pump will restore level.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 9 **Critical N** OI 149, Section 5.2, Subsection 5.2.1, Step (8)	Throttle MO-2004[1904] as needed to control RPV level. Place HS-2004C [1904C] LPCI Open Interlock Override to OVERRIDE as needed.
Standard:	Throttle MO-1904 as needed to control RPV level.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Terminating Cues: Once applicant recognizes that RPV level is greater than 170" the JPM is complete.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

- The plant is in Mode 4.
- Shutdown cooling was in operation with “B” RHR loop.
- The following systems are unavailable:
  - Both Core Spray pumps
  - Condensate system
  - CRD pumps
- The reactor was inadvertently drained and the drain down has been stopped.
- Another operator has emergency cleared SDC tags and MO-1935 MIN FLOW BYPASS has been re-energized in preparation for injection with RHR.

INITIATING CUES (IF APPLICABLE):

- The CRS directs you to line up and restore RPV level to greater than 170” with RHR in the LPCI mode of operation.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM TITLE: **Install DEFEAT 1, start RCIC using the OI 150 QRC 1, and raise reactor water level greater than 211 inches**

JPM NUMBER: **217000-20** **REV. 0**

TASK NUMBER(S) / TASK TITLE(S): **95.11, Perform EOP Defeat 1**
3.05, Perform Rapid Start for EOP Use

K/A NUMBERS: **217000 A4.01** **K/A VALUE: 3.7 / 3.7**

Justification (FOR K/A VALUES <3.0): **N/A**

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☐ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** ____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]
Simulator: [X] Other: [ ]
Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path [NRC]: NO
Alternate Path [INPO]: NO

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

Protected Content: (CAPRs, corrective actions, licensing commitments, etc. associated with this material)

{C001} NONE

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR#	PREPARER SUPERVISOR	DATE DATE
0	New for PDA 17-1			See Cover See Cover	

SIMULATOR SET-UP: *(Only required for simulator JPMs)*

SIMULATOR SETUP INSTRUCTIONS:

1. Reset simulator to any at power IC
2. Insert a manual reactor scram
3. Stabilize reactor water level using automatic feedwater level control
4. Insert malfunction listed below

SIMULATOR MALFUNCTIONS:

TIME	MALFUNCTION No.	MALFUNCTION TITLE	ET	DELAY	F. SEV.	RAMP	I. SEV.
Set up	STRC01	TRIP OVRD-RCIC FAILS TO AUTO START					

SIMULATOR OVERRIDES: None

SIMULATOR REMOTE FUNCTIONS: None

Required Materials:
- EOP Defeat 1, Current Revision
- OI 150 QRC 1, Current Revision
- (4) Keys #2235

General References:
- EOP Defeat 1, Rev. 3
- OI 150 QRC 1, Rev. 3

Task Standards:
- Place HS-2437 in OVERRIDE
- Open MO-2404, RCIC Turbine Steam Supply Valve
- Open MO-2512, RCIC Inject Valve

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 manual reactor scram has been inserted
- EOP 1, RPV Control, has been entered
- Loss of electrical high pressure injection sources is anticipated

INITIATING CUES (IF APPLICABLE):

The Control Room Supervisor (CRS) has directed you to:

- Insert EOP Defeat 1, RCIC Low RPV Pressure Isolation and 211" Defeat
- Use OI 150 QRC 1, RCIC Rapid Start, to raise reactor water level to maintain a reactor water level of 220 to 258 inches.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step: 1 **Critical N**	**NOTE** Placing E51A-SA[B] in OVERRIDE/TEST, or HS-2437 or HS-2400A in OVERRIDE will activate annunciator RCIC STEAM LINE ISOLATION OVERRIDE (1C14B, B-5).
Standard:	The Operator will placekeep the NOTE.
Evaluator Note:	**This and the following actions are directed by EOP Defeat 1.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 2 **Critical N**	At 1C33, place MO2400 AUTO OPEN SIGNAL OVERRIDE keylock switch HS-2400A in OVERRIDE position and confirm amber light is ON.
Standard:	The Operator will place keylock switch HS-2400A in the OVERRIDE position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 3 **Critical Y**	At 1C30, place MO2401 AUTO OPEN SIGNAL AND RPV HI LEVEL OVERRIDE keylock switch HS-2437 in OVERRIDE position and confirm amber light is ON.
Standard:	The Operator will place keylock switch HS-2437 in OVERRIDE.
Evaluator Note:	**APED-E51-009 <2> shows that HS-2437 is required to permit RCIC to raise reactor water level greater than 211 inches. Verification of the amber light is NOT critical.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 4 **Critical N**	At 1C30, place LO STM PRESS ISOL OVERRIDE keylock switch E51A-SA in OVERRIDE/TEST position.
Standard:	The Operator will place keylock switch E51A-SA in OVERRIDE/TEST position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 5 **Critical N**	At 1C33, place RCIC LO STM PRESS ISOL OVERRIDE keylock switch E51A-SB in OVERRIDE/TEST position.
Standard:	The Operator will place keylock switch E51A-SB in OVERRIDE/TEST position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 6 **Critical N**	If there is no RCIC initiation signal (1C05A, B-1) REACTOR LO-LO LEVEL TRIP present, operate RCIC per OI 150 as needed for pressure and level control.
Standard:	The Operator will determine that a RCIC initiation signal (1C05A, B-1) REACTOR LO-LO LEVEL TRIP IS NOT present and transition to OI 150 QRC 1.
Evaluator Note:	**The Operator may placekeep the NOTE (or "N/A") and "N/A" Step 6a through 6j prior to transitioning to OI 150 QRC 1.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 7 **Critical N**	(1) If desired to operate RCIC in the CST to CST mode: (a) **Open MO-2316**, Redundant Shutoff Valve. (b) **Open MO-2515**, RCIC Test Bypass Valve, to 44-46% open.
Standard:	The Operator will placekeep both steps with an "N/A."
Evaluator Note:	**This and the following actions are directed by OI 150 QRC 1.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 8 **Critical N**	Verify MO-2511, RCIC Pump Discharge Valve, is open.
Standard:	The Operator will determine that MO-2511 is open.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 9 **Critical N**	Open MO-2426, RCIC Lube Oil Cooler Supply Valve.
Standard:	The Operator will open MO-2426.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 10 **Critical N**	Start 1P-227, RCIC Vacuum Pump.
Standard:	The Operator will start 1P-227.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 11 **Critical N**	(5) If RCIC was previously tripped manually, perform the following: (a) Close MO-2405 Turbine Stop Valve Motor Control (b) Place & Hold HS-2405 in the open position until full open
Standard:	The Operator will placekeep both steps with an "N/A."
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 12 **Critical N**	**CAUTION** If injection to the RPV is desired, be prepared to open RCIC Inject Valve MO-2512 immediately after MO-2404 is opened to prevent a possible RCIC turbine overspeed trip.
Standard:	The Operator will placekeep the CAUTION.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 13 Critical Y	Open MO-2404, RCIC Turbine Steam Supply Valve.
Standard:	The Operator will open MO-2404.
Evaluator Note:	**Simulator Malfunction STRC01 will prevent an automatic start and injection of RCIC.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 14 Critical Y	For RPV injection, immediately open MO-2512, RCIC Inject Valve.
Standard:	The Operator will open MO-2512.
Evaluator Note:	**The Operator may use FIC-2509, RCIC Flow Control, and adjust injection rate into the reactor vessel.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **WHEN RCIC is injecting into the reactor vessel and reactor water level demonstrates a rising vessel level, CUE the Operator that the JPM is complete.**

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

- A manual reactor scram has been inserted
- EOP 1, RPV Control, has been entered
- Loss of electrical high pressure injection sources is anticipated

INITIATING CUES (IF APPLICABLE):

The Control Room Supervisor (CRS) has directed you to:

- Insert EOP Defeat 1, RCIC Low RPV Pressure Isolation and 211" Defeat
- Use OI 150 QRC 1, RCIC Rapid Start, to raise reactor water level to maintain a reactor water level of 220 to 258 inches.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM TITLE: **Perform Containment Venting with a PCIS Group 3 Signal with less than 2 PSIG DW**

JPM NUMBER: **223001-06** **REV. 7**

TASK NUMBER(S) / TASK TITLE(S): **42.08 / PERFORM CONTAINMENT VENTING WITH A PCIS GROUP 3 SIGNAL WITH LESS THAN 2 PSIG DW**

K/A NUMBERS: **223001** **K/A VALUE:** **A1.01 3.5/3.6**

Justification (FOR K/A VALUES <3.0):

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☐ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** ____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]
Simulator: [X] Other: [ ]
Lab: [ ]

Time for Completion: 20 Minutes Time Critical: No

Alternate Path [NRC]: Yes
Alternate Path [INPO]: Yes

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

Protected Content: (CAPRs, corrective actions, licensing commitments, etc. associated with this material)

{C001} ACE 001729, Review recommendation 4 of OE 001501.
{C002} CA046394, Improvements needed for Operations Simulator JPMs.

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR#	PREPARER SUPERVISOR	DATE DATE
7.0	Revised for 17-1 NRC LOIT Exam	Update for new form	N/A	See Cover See Cover	

SIMULATOR SET-UP: *(Only required for simulator JPMs)*

SIMULATOR SETUP INSTRUCTIONS:
1. Insert any malfunction that will establish approximately 1.5 psig Drywell pressure
2. Remove malfunction and allow for Drywell pressure to lower just below 1.5 psig to allow for 1C05B(B-1) to clear along with any other annunciator(s)
3. Insert malfunctions per the table below
4. Placekeep OI 573, Section 6.1, Steps 1 through and including Step 4

SIMULATOR EVENTS:

Trigger No.	Trigger Logic Statement	Trigger Word Description
1	ZDIPCHS4310(2)	HS-4310 DRYWELL EXH BYP ISO

SIMULATOR MALFUNCTIONS:

TIME	MALFUNCTION #	MALFUNCTION TITLE	ET	DELAY	RAMP	Initial	Final
Setup	RM03RE7606A	RE-7606A REACTOR BLDG MAIN EXHAUST A loss of HV	1	5 SEC		Inactive	Active

SIMULATOR OVERRIDES: NONE

SIMULATOR REMOTE FUNCTIONS: NONE

Required Materials:
- OI 573, Containment Atmosphere Control System, current revision
- (7) Keys #2235
- (2) Keys GE75

General References:
- OI 573, Containment Atmosphere Control System, Rev. 95

Task Standards:
- Keylock switch A71B-S430C on 1C03 to the BYPASS position
- Handswitch A71B-S34 to the DRYWELL position
- CV-4303 placed in OVERRIDE position
- CV-4310 placed in OVERRIDE position

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 low pressure weather system is moving through Eastern Iowa
- Drywell pressure has been slowly rising
- Standby Gas Treatment (SBGT) is currently in Operation

INITIATING CUES (IF APPLICABLE):

- The Control Room Supervisor directs you to continue venting the Drywell to maintain 1.0-1.5 psig in accordance with OI 573, Containment Atmosphere Control System

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step:1 **Critical N**	Monitor drywell and torus pressure indications on 1C03 and pressure trend indications on 1C09 and 1C29.
Standard:	The Operator will monitor indications of drywell and torus pressure.
Evaluator Note:	**The Operator will continue with OI 573, Section 6.1, Step 5.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:2 **Critical N**	**CAUTION** Completely depressurizing the Primary Containment when inerted may cause containment oxygen concentrations to increase.
Standard:	The Operator will placekeep the CAUTION.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:3 **Critical N**	If it is intended to lower drywell pressure below 1 psig or torus pressure below 1" WG, isolate makeup Nitrogen as follows: Switch — Name — Position HS-4311 — CONT N_2 MAKEUP SUPPLY ISOL — CLOSED HS-4312 — DW N_2 MAKEUP INLET ISOL — CLOSED HS-4313 — TORUS N_2 MAKEUP INLET ISOL — CLOSED
Standard:	The Operator will placekeep these switch positions with "N/A."
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:4 **Critical N**	**CAUTION** When venting drywell and/or torus, Standby Gas Treatment System inlet pressure of +10" WG as indicated on PI-4303 SBGT INLET PRESSURE on 1C03 should NOT be exceeded. SBGT inlet relief damper will relieve at +10" WG into the Reactor Building 786' level near the SBGT Room.
Standard:	The Operator will placekeep the CAUTION.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:5 Critical N	If time permits, Post warning signs on the outside of the SBGT room doors 256 and 263 alerting personnel of venting.
Standard:	The Operator will contact an In-Plant Operator to post these doors **or** notifies the CRS of this requirement.
Evaluator Cue:	**IF contacted as the CRS, CUE the Operator that another Operator will ensure these doors are posted and to continue.** **IF contacted as an In-Plant Operator, CUE the Operator that the doors are posted.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:6 Critical Y	Line up to vent drywell by positioning the following switch: Switch: HS-4303 — Name: OUTBD DRYWELL VENT ISOL CV-4303 — Position: AUTO/OPEN
Standard:	The Operator will take HS-4303 to AUTO OPEN
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 7 **Critical Y**	Vent the drywell by positioning the following switch: Switch: HS-4310 Name: INBD DW VENT BYPASS ISOL CV-4310 Position: AUTO/OPEN
Standard:	The Operator will take HS-4310 to AUTO OPEN
Evaluator Note:	**When HS-4310 is positioned to OPEN, this will cause Malfunction RM03RE7606A to activate which will isolate the established flowpath.**
Evaluator Cue:	**WHEN contacted as the Control Room Supervisor, CUE the Operator that upon investigation it has been determined that the Reactor Building Vent Shaft Rad Monitor has an INOPERABLE signal and another Operator will take care of the ARP actions and that venting of the Drywell is the priority and is still required to be maintained between 1.0 to 1.5 psig, per OI 573.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 8 **Critical N**	Monitor Drywell and Torus pressure indications on 1C03 and pressure trend indications on 1C09 and 1C29.
Standard:	The Operator will monitor indications of drywell and torus pressure.
Evaluator Note:	**The Operator will take the following actions from OI 573, Section 6.2.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:9 Critical N	Verify the Standby Gas Treatment System is in operation per OI 170.
Standard:	The Operator will placekeep this step as the SBGT system is running as given from the Turnover Sheet.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:10 Critical N	If time permits, Post warning signs on the outside of the SBGT room doors 256 and 263 alerting personnel of venting.
Standard:	The Operator will contact an In-Plant Operator to post these doors **or** notifies the CRS of this requirement.
Evaluator Cue:	**IF contacted as the CRS, CUE the Operator that another Operator will ensure these doors are posted and to continue.** **IF contacted as an In-Plant Operator, CUE the Operator that the doors are posted.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:11 **Critical N**	After verification of Group 3 Isolation, open CONT H2/O2 AND RAD SAMPLING VALVES by taking the following handswitches on 1C29 to OVERRIDE: Switch — Name — Position HS-8101A — OUTBD SAMPLE ISOLATION VALVES — OVERRIDE HS-8100A — INBD SAMPLE ISOLATION VALVES — OVERRIDE HS-8101B — OUTBD SAMPLE ISOLATION VALVES — OVERRIDE HS-8100B — INBD SAMPLE ISOLATION VALVES — OVERRIDE
Standard:	The Operator, at 1C29, will take HS-8101A and HS-8100A to the OVERRIDE position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:12 **Critical N**	NOTE AR-4381A/B and AR-4382A/B do not indicate unless H2-O2 Analyzers are in service.
Standard:	The Operator will placekeep the NOTE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:13 Critical N	Monitor the containment atmosphere on the following instruments: Instrument — Panel NW DRYWELL AREA HI RANGE RAD MONITOR RR AND RIM-9184A — 1C09A South DRYWELL AREA HI RANGE RAD MONITOR RR AND RIM-9184B — 1C09B CONTAINMENT H2/O2 CONCENTRATION AR-4381A/B — 1C09A CONTAINMENT H2/O2 CONCENTRATION AR-4382A/B — 1C09B CONTAINMENT ATMOSPHERE RADIATION RR-4379A — 1C29 CONTAINMENT ATMOSPHERE RADIATION RR-4379B — 1C29 PRIMARY CONTAINMENT % O2 MONITOR AI-8102 — 1C219B
Standard:	The Operator will monitor 1C09 and 1C29 for changing parameters.
Evaluator Cue:	**WHEN the Operator reads Step 5 of OI 573; section 6.2 and if asked, CUE the Operator that the STA will monitor the containment for hydrogen and oxygen concentrations.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:14 Critical N	If necessary, place H2-O2 Analyzers in service per OI 873.
Standard:	The Operator will placekeep this step with an “N/A.”
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:15 Critical N	If utilizing the 0-25% scale for oxygen as determined by the position of HS9A / HS9B, multiply recorder reading on AR4381B / AR4382B by 10 and utilize Appendix 2 to determine the proper value.
Standard:	The Operator will placekeep this step with an “N/A.”
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:16 Critical N	If utilizing the 0-20% scale for hydrogen as determined by the position of HS2A / HS2B, multiply recorder reading on AR4381A / AR4382A by 10 and utilize Appendix 3 to determine the proper value.
Standard: OI 573 Section 6.2 (7)	The Operator will placekeep this step with an “N/A.”
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:17 Critical N	CAUTION Torus BYPASS VENT THROTTLE valve MO-4309A should remain open during emergency operations, because these valves are powered from non-essential buses. When SBGT is running, the SBGT inlet relief should not lift while venting through the bypass lines, even with these throttle valves full open.
Standard:	The Operator will placekeep the CAUTION.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:18 Critical N	Monitor SBGT INLET PRESSURE PI-4303 on 1C03 while venting is in progress.
Standard:	The Operator will monitor SBGT INLET PRESSURE PI-4303 on 1C03.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:19 Critical N	To vent EITHER the drywell or torus through the bypass lines, perform the following: NOTE If a loss of 24 VDC Div I[II] has occurred, RIS-4131A[B] Refuel Floor Exhaust Rad Monitor Trip Auxiliary Unit A[B] will be tripped with no annunciator. To vent containment, A71B-S430A[B] FUEL POOL EXH HI RAD will need to be in BYPASS as well as A71B-S430J[K] OFFGAS VENT PIPE HI-HI RAD.
Standard:	The Operator will placekeep the NOTE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:20 Critical Y	To vent EITHER the drywell or torus through the bypass lines, perform the following: Override INBD [OUTBD] GROUP 3 ISOL SIG BYPASS FOR CONT VENT as necessary by placing the appropriate keylocked switch(es) on 1C03 in BYPASS: Switch / Name / Position A71B-S430G[H] RX LO WATER LEVEL BYPASS A71B-S430A[B] FUEL POO EXH HI RAD BYPASS A71B-S430C[D] RX BLDG VENT HI RAD BYPASS A71B-S430J[K] OFFGAS VENT PIPE HI-HI RA BYPASS
Standard:	The Operator will place keylock switch A71B-S430C on 1C03 to the BYPASS position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:21 Critical Y	To vent EITHER the drywell or torus through the bypass lines, perform the following: On 1C05, place CONTAINMENT VENT PATH SELECT A71B-S34 in the desired position, either drywell or torus.
Standard:	The Operator will place A71B-S34 to the DRYWELL position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:22 Critical Y	To vent EITHER the drywell or torus through the bypass lines, perform the following: Vent the drywell by placing the following valves in OVERRIDE: Valve / Name / Position CV-4303 OUTBD DRYWELL VENT ISOL OVERRIDE CV-4310 INBD DW VENT BYPASS ISOL OVERRIDE
Standard:	The Operator will place both handswitches for CV-4303 and CV-4310 in OVERRIDE position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Terminating Cues: **WHEN a lowering Drywell pressure is observed, CUE the Operator that another Operator will take over venting responsibilities and that the JPM is complete.**

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

- A low pressure weather system is moving through Eastern Iowa
- Drywell pressure has been slowly rising
- Standby Gas Treatment (SBGT) is currently in Operation

INITIATING CUES (IF APPLICABLE):

- The Control Room Supervisor directs you to continue venting the Drywell to maintain 1.0-1.5 psig in accordance with OI 573, Containment Atmosphere Control System

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM TITLE: **Perform Required Actions for Transferring Essential Bus from the SBDG to the Startup Transformer**

JPM NUMBER: **264000-05** **REV. 12**

TASK NUMBER(S) / TASK TITLE(S): **15.08, Transfer Essential Bus from Standby Diesel Generator to Startup Transformer.**

K/A NUMBERS: **A4.05**
A2.01

K/A VALUE: **(3.6/3.7)**
(3.5/3.6)

Justification (FOR K/A VALUES <3.0):

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☐ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** ____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]
Simulator: [X] Other: [ ]
Lab: [ ]

Time for Completion: 10 Minutes Time Critical: NO

Alternate Path [NRC]: NO
Alternate Path [INPO]: NO

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

Protected Content: (CAPRs, corrective actions, licensing commitments, etc. associated with this material)

{C001}

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR#	PREPARER SUPERVISOR	DATE DATE
12.0	Revised for 17-1 NRC LOIT Exam	Update for new form	N/A	See Cover See Cover	

SIMULATOR SET-UP: *(Only required for simulator JPMs)*

SIMULATOR SETUP INSTRUCTIONS:
1. Set up in any IC with the Startup Transformer available to the 1A4 bus
2. Start the “B” ESW pump
3. With the UNIT/PARALLEL switch in the Simulator in UNIT (REMOTE DG11), place 1G-21 onto bus 1A4 and trip 1A402
4. Turn off SYNC switch and remove
5. Place BUS 1A4 TRANSFER switch to AUTO
6. Acknowledge 1C94 annunciators using REMOTE AN05

SIMULATOR MALFUNCTIONS: NONE

SIMULATOR OVERRIDES: NONE

SIMULATOR REMOTE FUNCTIONS: NONE

Required Materials:
- OI 304.2, 4160/480V Essential Electrical Distribution System, current revision

General References:
- OI 304.2, 4160/480V Essential Electrical Distribution System, Rev. 96

Task Standards:
- 1A4 transfer breaker mode selector switch to manual
- SYNCHRONIZE switch for 4KV BREAKER 1A402 STARTUP TRANSFORMER TO BUS 1A4, place it in the ON position
- 1A402 breaker closed
- 1A411 is open

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:

- Standby Diesel Generator 1G-21 is supplying 1A4, 4160 VAC Essential Switchgear, due to an earlier loss of power to the 1A4 bus
- Maintenance has completed the necessary maintenance to correct the fault

INITIATING CUES (IF APPLICABLE):

- The Control Room Supervisor directs you to transfer 1A4 to the Startup Transformer in accordance with OI 304.2

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step:1 **Critical N**	**NOTE** Per TS 3.8.1 bases, an Offsite Circuit is considered OPERABLE when either connected to the essential bus or has slow transfer capability to energize the essential bus. One of these conditions must be met for BOTH essential buses to be Operable. (i.e. Operable for both, or Operable for neither). The following rules therefore apply to this site's offsite circuits: • TS 3.8.1 - The Startup Transformer 1X3 Offsite Circuit is only OPERABLE when connected to BOTH essential buses (bus transfer switch position does not matter). • TS 3.8.1 - The Standby Transformer 1X4 Offsite Circuit must be either connected to the essential bus or bus transfer switch in AUTO to be OPERABLE. • TS 3.8.1 - The SBDG must be connected to the bus and operating in UNIT (isochronous) mode OR have the associated bus transfer switch in AUTO to be OPERABLE. • TS 3.8.1 – Bus transfers may necessitate entry into LCO 3.0.3 per TS 3.8.1.F. This has been evaluated by Licensing as necessary and appropriate per CE6150. • Per TS 3.8.2 bases, SBDG operability is the same as TS 3.8.1. For Offsite Circuits though, no automatic transfer capability is required to be considered OPERABLE.
Standard:	The Operator will placekeep the NOTE.
Evaluator Cue:	**IF informed to enter appropriate Tech Specs, CUE the Operator that all appropriate Tech Specs will be entered.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:2 **Critical N**	Verify DEGRADED VOLTAGE 1A4 is reset at 1C08.
Standard:	The Operator determines that the 1A4 Degraded Voltage Relay is reset.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:3 **Critical N**	If in Mode 1, 2, or 3, verify the following Tech Spec conditions are entered: (a) T.S. 3.8.1 Condition A for Standby XFMR Offsite Circuit (b) T.S. 3.8.1 Condition C for both Offsite Circuits inoperable (c) T.S. 3.8.1 Condition B for associated SBDG (d) T.S. 3.8.1 Condition F (three AC sources inoperable) (e) T.S. 3.0.3 (per 3.8.1F)
Standard:	The Operator will inform the CRS to enter appropriate Tech Specs.
Evaluator Cue:	**IF informed to enter appropriate Tech Specs, CUE the Operator that all appropriate Tech Specs will be entered.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:4 **Critical N**	If in Mode 4 or 5 and the required essential bus is being transferred, verify TS 3.8.2 Condition B is entered.
Standard:	The Operator will placekeep this step with an “N/A.”
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:5 **Critical N**	**NOTE** With IDLE-RATED SWITCH in RATED and GOVERNOR MODE SWITCH (DROOP) in PARALLEL, the SBDG is considered inoperable but available. These switch positions disable the auto swap to UNIT (isochronous) mode of operation.
Standard:	The Operator will placekeep the NOTE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:6 **Critical N**	At 1C93[1C94], verify HS-3281A[HS-3281B], IDLE-RATED SWITCH, in RATED.
Standard:	The Operator will verify at 1C94 that HS-3281B, IDLE-RATED SWITCH, in RATED.
Evaluator Note:	**WHEN contacted to verify HS-3281B IDLE RATED SWITCH is in RATED, CUE the Operator that HS-3281B IDLE RATED SWITCH is in RATED**
Evaluator Cue:	**WHEN contacted to verify handswitch positions, CUE the Operator to contact the In-Plant Operator (simulator operator.)**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:7 **Critical N**	NOTE Expect 4KV BUS AUTO TRANSFER INOP (1C08A, D-7) in the next step.
Standard:	The Operator will placekeep the NOTE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:8 **Critical Y**	Place BUS 1A3[4] TRANSFER switch in MANUAL.
Standard:	The Operator will place the 1A4 TRANSFER switch in the manual position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:9 **Critical N**	Adjust A[B] DIESEL GENERATOR 1G-31[1G-21] VOLTAGE ADJUST control to maintain A[B] DIESEL GENERATOR 1G-31[1G-21] VOLTS meter at approximately 4160 volts.
Standard:	The Operator, if necessary, will adjust the B DIESEL GENERATOR 1G-21 VOLTAGE ADJUST control to maintain B DIESEL GENERATOR 1G-21 VOLTS meter at approximately 4160 volts.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:10 **Critical N**	Adjust A[B] DIESEL GENERATOR 1G-31[1G-21] SPEED ADJUST control to maintain A[B] DIESEL GENERATOR 1G-31[1G-21] FREQUENCY meter at 60 hertz.
Standard:	The Operator, if necessary, will adjust B DIESEL GENERATOR 1G-21 SPEED ADJUST control to maintain B DIESEL GENERATOR 1G-21 FREQUENCY meter at 60 hertz.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:11 **Critical N**	NOTE The following step will cause the speed and voltage of the diesel to change slightly.
Standard:	The Operator will placekeep the NOTE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:12 **Critical N**	Place the GOVERNOR MODE SWITCH (DROOP) HS-3234A[B] on 1C93[94] in the PARALLEL position.
Standard:	The Operator will direct the In-Plant Operator to place the GOVERNOR MODE SWITCH (DROOP) HS-3234B on 1C94 in the PARALLEL position.
Evaluator Note:	**WHEN called to change Droop Switch, INSERT dg11 to PARALLEL and CUE the Operator that the Droop Switch is in PARALLEL.**
Evaluator Cue:	**WHEN contacted to verify handswitch positions, CUE the Operator to contact the In-Plant Operator (simulator operator.)**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:13 **Critical N**	**CAUTION** Simultaneous use of two Synchronizing Scope Switches may result in significant equipment damage or unintentional breaker trips and lock outs.
Standard:	The Operator will placekeep the CAUTION.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:14 **Critical Y**	Insert the handle in the SYNCHRONIZE switch for 4KV BREAKER 1A302[402] STARTUP TRANSFORMER TO BUS 1A3[4], place it in the ON position.
Standard:	The Operator will insert the handle in the SYNCHRONIZE switch for 4KV BREAKER 1A402 STARTUP TRANSFORMER TO BUS 1A4, and place it in the ON position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:15 **Critical N**	**NOTE** The Diesel Generator is now the RUNNING (not incoming) supply. The effect on the synchroscope of adjusting the B DIESEL GENERATOR 1G-21 SPEED ADJUST control will be opposite when compared to the effect when the Diesel Generator is the INCOMING supply.
Standard:	The Operator will placekeep the NOTE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:16 **Critical N**	Using the A[B] DIESEL GENERATOR 1G-31[21] VOLTAGE ADJUST knob, adjust RUNNING VOLTS SYNCHRONIZE to slightly lower than INCOMING VOLTS SYNCHRONIZE.
Standard:	The Operator, if necessary, will adjust the B DIESEL GENERATOR 1G-21 VOLTAGE ADJUST knob, to adjust the RUNNING VOLTS SYNCHRONIZE to slightly lower than INCOMING VOLTS SYNCHRONIZE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:17 **Critical N**	Using the A[B] DIESEL GENERATOR 1G-31[21] SPEED ADJUST, adjust diesel generator speed to obtain a slow, clockwise synchroscope rotation.
Standard:	The Operator, if necessary, will adjust the B DIESEL GENERATOR 1G-21 SPEED ADJUST, adjust diesel generator speed to obtain a slow, clockwise synchroscope rotation.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:18 **Critical Y**	When the synchroscope is at the 12 o'clock position, momentarily place control switch 4KV BREAKER 1A302[402] STARTUP TRANSFER TO BUS 1A3[4] in the CLOSE position. Observe that the red (breaker closed) and white (closing spring charged) indicating lights are ON.
Standard:	The Operator, when the synchroscope is at the 12 o'clock position, will momentarily place control switch 4KV BREAKER 1A402 STARTUP TRANSFER TO BUS 1A4 in the CLOSE position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:19 **Critical N**	Reduce the load on the Diesel Generator to 50 KW by using the A[B] DIESEL GENERATOR 1G-31[1G-21] SPEED ADJUST control.
Standard:	The Operator will reduce the load on the B Diesel Generator to 50 KW by using the B DIESEL GENERATOR 1G-21 SPEED ADJUST control.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:20 **Critical Y**	Place the breaker control switch 4KV BREAKER 1A311[411] A[B] DIESEL GENERATOR 1G-31[21] in the TRIP position. Observe that the green (breaker tripped) and white (closing spring charged) indicating lights are ON.
Standard:	The operator will open the SBDG output breaker 1A411 by taking the breaker control switch to the trip position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:21 **Critical N**	Place the SYNCHRONIZE switch for 4KV BREAKER 1A302[402] STARTUP TRANSFORMER TO BUS 1A3[4] in the OFF position, and remove the handle.
Standard:	The Operator will places the SYNCHRONIZE switch for 4KV BREAKER 1A402 STARTUP TRANSFORMER TO BUS 1A4 in the OFF position, and remove the handle.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:22 **Critical N**	Place the BUS 1A3[4] TRANSFER switch in the AUTO position.
Standard:	The Operator will place the BUS 1A4 TRANSFER switch in the AUTO position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Terminating Cues: **WHEN the Startup Transformer is supplying 1A4 and the SBDG 1G-21 is running unloaded, CUE the Operator that the JPM is complete.**

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

- Standby Diesel Generator 1G-21 is supplying 1A4, 4160 VAC Essential Switchgear, due to an earlier loss of power to the 1A4 bus
- Maintenance has completed the necessary maintenance to correct the fault

INITIATING CUES (IF APPLICABLE):

- The Control Room Supervisor directs you to transfer 1A4 to the Startup Transformer in accordance with OI 304.2

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM TITLE: **Transfer A RPS from Alternate Power to the A MG-Set (AP)**

JPM NUMBER: **212000-18** **REV. 1**

TASK NUMBER(S) / TASK TITLE(S): **22.03 / Transfer Power from Alternate Power Supply Source to A(B) Motor Generator Set**

K/A NUMBERS: **212000 (A4.14)** **K/A VALUE: 3.8 / 3.8**

Justification (FOR K/A VALUES <3.0): **N/A**

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☐ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** ____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: ☐ Perform: ☒ X

EVALUATION LOCATION:
In-Plant: ☐ Control Room: ☐
Simulator: ☒ X Other: ☐
Lab: ☐

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path [NRC]: YES
Alternate Path [INPO]: YES

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

Protected Content: (CAPRs, corrective actions, licensing commitments, etc. associated with this material)

{C001}

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR#	PREPARER SUPERVISOR	DATE DATE
Rev. 0	New for 2016 Annual Operating Exam	New for 2016 Annual Operating Exam	2107035	See Cover See Cover	N/A N/A
Rev. 1	Updated the formatting of procedure steps	Update for PDA 17-1 NRC Exam	N/A	See Cover See Cover	

SIMULATOR SETUP INSTRUCTIONS:

1. Reset to any power IC
2. Perform the following steps in order:
   a. At 1C04, close MO-2700 (allow RWCU pumps to trip)
   b. At 1C04, throttle MO-2723 until dual indication is received
   c. At 1C03, verify MO-4423 is closed
   d. At 1C15, place C71B-S1A, RPS ALTERNATE POWER TRANSFER, switch to the ALT position
   e. At 1C36, reset RIS-4131A, Fuel Pool Exhaust Radiation Monitor
   f. At 1C05, press Div 1 and Div 2 Reset Pushbuttons

   NOTE: Take a GE75 Key to place A SBGT in Standby

   g. At 1C24, reset L/R-5830A, Inboard Isolation Lockout Relay
   h. At 1C24, use the GE75 Key to place HS-5814A, A SBGT Mode Select, handswitch to MAN and then return to AUTO
   i. Using REMOTE an13, acknowledge annunciators at 1C82
   j. At 1C05, place hand switch C71A-S5 to positions Group 1 and then to Group 2 and 3 to reset Half Scram

   NOTE: This event trigger must be created after C71B-S1A has been positioned to ALT

   k. Create Event Trigger as described below
   l. IF the JPM will be used more than once, save this IC to a SNAPSHOT for re-use.
   m. Mark OI 358 Appendix 3, RPS Power Supply Transfer Half Scram Preparation Checklist as complete.
   n. Mark OI 358 Section 6.2 Steps (1), (2) and the note above (1) as complete

SIMULATOR EVENT TRIGGERS:

EVENT ID	Event Code	Description
1	!zdirpc71bs1A	Activate C APRM INOP

SIMULATOR MALFUNCTIONS:

Time	Malf #	Description	ET	Delay	Ramp	Initial	Value	Final
Setup	nm15c	APRM CHANNEL C FAILS INOPERATIVE	1				Inactive	Active

Required Materials:
- OI 358, Reactor Protection System, current revision
- ARP 1C05A, Reactor Control, current revision

General References:
- OI 358, Reactor Protection System, Rev. 68
- ARP 1C05A, Reactor Control, Rev. 83

Task Standards:
- RPS ALTERNATE POWER TRANSFER switch C71B-S1A in the A-MG position
- APRM BYPASS switch C51B-S3 in the C position
- The half scram is reset

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:

- Electrical maintenance has been completed on EPA A1 and EPA A2
- Transferring “A” RPS from the Alternate Power Supply Source to “A” Motor Generator Set is in progress
- OI 358 Appendix 3, RPS Power Supply Transfer Half Scram Preparation Checklist is complete for this transfer

INITIATING CUES (IF APPLICABLE):

- The Control Room Supervisor directs you to complete the transfer “A” RPS to “A” Motor Generator Set per OI 358, Reactor Protection System continuing at section 6.2, Power Transfer from Alternate Power Supply Source to A[B] Motor Generator Set, Step 3.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step: 1 **Critical N**	**NOTE** It is possible that the transfer of power may not result in Refuel Pool Radiation Monitor RIS-4141A/B alarm as expected due to the time delay in voltage decay of E/S4131A or E/S4131B.
Standard:	The Operator will placekeep the NOTE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 2 **Critical N**	**CAUTION** The RPS ALTERNATE POWER TRANSFER switches at 1C15 and 1C17 contain "break-before-make" contacts. The next step will result in a PCIS Groups 1 through 5 isolation (except MSIVs) signal and reactor half scram.
Standard:	The Operator will placekeep the CAUTION.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 3 **Critical _Y_**	At 1C15, place the RPS ALTERNATE POWER TRANSFER switch C71B-S1A in the A-MG position
Standard:	The Operator will place the RPS ALTERNATE POWER TRANSFER switch C71B-S1A in the A-MG position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 4 **Critical _N_**	At 1C17 [1C15], verify the white ALT XFMR indicating light above the RPS ALTERNATE POWER TRANSFER switch turns ON.
Standard:	The Operator verifies at 1C15, that the white ALT XFMR indicating light above the RPS ALTERNATE POWER TRANSFER switch turns ON.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 5 **Critical _N (SEQ-)**	Complete RPS Power Supply Transfer Half Scram Recovery Checklist (Appendix 4)
Standard:	The Operator will perform the RPS Power Supply Transfer Half Scram Recovery Checklist (Appendix 4.)
Evaluator Note:	**The Operator will perform the following steps from OI 358, Appendix 4.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 6 **Critical N (SEQ-)**	**CAUTION** When CV-4371A is overridden open, its PCIS function is inoperable. Enter the appropriate LCO action Statement.
Standard:	The Operator will placekeep the CAUTION.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 7 **Critical N (SEQ-)**	**IF** B RPS was deenergized AND PCIS Group 3 is not promptly restored, THEN complete substeps (1)(a) and (1)(b), otherwise, mark substeps (1)(a) and (1)(b) NA.
Standard:	The Operator will placekeep substeps (1)(a) and (1)(b) using "N/A."
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 8 Critical N (SEQ-)	At 1C05, position REACTOR SCRAM RESET hand switch C71A-S5 to Group 1 and 4 [Group 2 and 3] and then to Group 2 and 3 [Group 1 and 4] to reset Half Scram.
Standard:	The Operator will position the REACTOR SCRAM RESET hand switch C71A-S5 to Group 1 and 4 [Group 2 and 3] and then to Group 2 and 3 [Group 1 and 4].
Evaluator Note:	**The Operator will identify that an APRM Upscale Trip or INOP is present or will identify that the A side half scram will not reset.** **The Operator investigation should identify that 1C05A (B-2), APRM A, C, E UPSCALE TRIP OR INOP, or 1C05A (A-5), NEUTRON MONITORING SYSTEM TRIP is in and will take action in accordance with the ARP actions.** **The following performance steps are written for actions in 1C05A (B-2). If the Operator takes actions per 1C05A (A-5) slight differences in the steps between the ARPs will not affect the Operator need to bypass the affected APRM and reset the half scram.**
Evaluator Cue:	**IF the Operator states that the half scram cannot be reset OR IF asked for guidance, THEN CUE the Operator for their recommended action.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 9 **Critical N**	3.1 Check the SCRAM GROUP A and B lights on 1C05 to determine if a full Reactor scram has occurred 3.2 If a full Reactor scram occurs, perform IPOI 5 (Reactor Scram) 3.3 Monitor APRM indications on Panels 1C05 and/or 1C37 3.4 **If** only A RPS half scram has occurred: a. **If** any B RPS channel APRM is rapidly approaching or has exceeded its trip setpoint, manually scram the Reactor and perform IPOI 5 (Reactor Scram) 3.5 Suspend testing in progress on other RPS instrumentation
Standard:	The Operator will perform and placekeep the following: 3.1 Check the SCRAM GROUP A and B lights on 1C05 to determine if a full Reactor scram has occurred 3.2 If a full Reactor scram occurs, perform IPOI 5 (Reactor Scram) 3.3 Monitor APRM indications on Panels 1C05 and/or 1C37 3.4 **If** only A RPS half scram has occurred: a. **If** any B RPS channel APRM is rapidly approaching or has exceeded its trip setpoint, manually scram the Reactor and perform IPOI 5 (Reactor Scram) 3.5 Suspend testing in progress on other RPS instrumentation
Evaluator Note:	**This and the next performance step will be performed from ARP 1C05A (B-2).** **The Operator will identify that the half scram cannot be reset due to a failed "C" APRM.** **The Operator may make an announcement to suspend all RPS instrumentation maintenance or testing.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 10 **Critical N**	3.6 If the trip is due to a loss of power, perform AOP 358 (Loss of RPS AC Power) and comply with Technical Specification requirements for Reactor Protection System (RPS) Instrumentation 3.7 If it is determined that an APRM has failed: a. Comply with Technical Specification requirements for Reactor Protection System (RPS) Instrumentation and the Technical Requirements Manual requirements for Control Rod Block Instrumentation b. With permission from the CRS, bypass the affected APRM
Standard:	The Operator will perform and placekeep the following: 3.6 If the trip is due to a loss of power, perform AOP 358 (Loss of RPS AC Power) and comply with Technical Specification requirements for Reactor Protection System (RPS) Instrumentation 3.7 If it is determined that an APRM has failed: a. Comply with Technical Specification requirements for Reactor Protection System (RPS) Instrumentation and the Technical Requirements Manual requirements for Control Rod Block Instrumentation b. With permission from the CRS, bypass the affected APRM
Evaluator Note:	**The Operator will determine that the "C" APRM has failed.**
Evaluator Cue:	**WHEN permission is requested to bypass "C" APRM, CUE the Operator to bypass the affected APRM.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 11 **Critical N**	**NOTE** Unbypassed inoperable APRM channels may affect RBM operability. One APRM channel per RPS trip system is normally bypassed to prevent a full scram due to a single shared LPRM failure. During normal operation the preferred APRM channel bypass combinations are A & D or C & B. To maximize the number of LPRM channels in service E & F should not be simultaneously bypassed Bypassing an APRM channel does not remove the channel input to SPDS. Testing or malfunction of the bypassed channel may result in an erroneous display of reactor power level if the scan status is not inactivated for the associated ID point(s).
Standard:	The Operator will placekeep the NOTE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 12 **Critical N**	If an APRM is currently bypassed, perform the following for the bypassed APRM, otherwise N/A this step: (a) Verify the APRM channel Mode Selector Switch on Panel 1C37 is in OPERATE. (b) Verify the APRM upscale, inoperative, and if greater than 5% reactor power, downscale trips on Panel 1C37 are reset. (c) Verify the IRM/APRM recorders on Panel 1C05 indicate approximately the same average power for the bypassed APRM as they do for the other APRM channels in operation. (d) Place the APRM BYPASS switch C51B-S3 or C51B-S6 on Panel 1C05 in the neutral (unbypassed) position. (e) Observe that the bypass light on Panel 1C05 and/or that the bypass light on Panel 1C37 is/are OFF.
Standard:	The Operator will perform and placekeep the following: (a) Verify the APRM channel Mode Selector Switch on Panel 1C37 is in OPERATE. (b) Verify the APRM upscale, inoperative, and if greater than 5% reactor power, downscale trips on Panel 1C37 are reset. (c) Verify the IRM/APRM recorders on Panel 1C05 indicate approximately the same average power for the bypassed APRM as they do for the other APRM channels in operation. (d) Place the APRM BYPASS switch C51B-S3 or C51B-S6 on Panel 1C05 in the neutral (unbypassed) position. (e) Observe that the bypass light on Panel 1C05 and/or that the bypass light on Panel 1C37 is/are OFF.
Evaluator Note:	**The Operator will perform these and the following actions using OI 878.4, Section 6.1.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 13 **Critical N**	Verify the two APRM channels in the RPS trip system which are to remain UNBYPASSED are OPERABLE, otherwise comply with Technical Specifications and TRM for inoperable RPS instrumentation.
Standard:	The Operator will verify two APRM channels in the RPS trip system are OPERABLE
Evaluator Cue:	**WHEN the Operator requests status of the remaining APRMs in the RPS Trip System will remain OPERABLE, CUE the Operator that all remaining APRM channels are OPERABLE.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 14 **Critical Y**	Place the APRM BYPASS switch C51B-S3 (C51B-S6) on Panel 1C05 in the A, C, or E (B, D, or F) position for the channel to be bypassed.
Standard:	The Operator will position the APRM BYPASS switch C51B-S3 on Panel 1C05 to the C position.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 15 **Critical N**	Observe that the bypass lights for the bypassed channel on Panel 1C37 and/or Panel 1C05 is/are ON.
Standard:	The Operator will observe that the bypass lights for the bypassed channel on Panel 1C37 and/or Panel 1C05 is/are ON.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 16 Critical Y	Reset the half scram.
Standard:	The Operator will position the REACTOR SCRAM RESET hand switch C71A-S5 to Group 1 and 4 [Group 2 and 3] and then to Group 2 and 3 [Group 1 and 4].
Evaluator Note:	**The Operator will take the final action directed from ARP 1C05A (B-2).**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **WHEN the half scram is reset, CUE the Operator that another Operator will finish Appendix 4 and the ARP actions.**

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

- Electrical maintenance has been completed on EPA A1 and EPA A2
- Transferring “A” RPS from the Alternate Power Supply Source to “A” Motor Generator Set is in progress
- OI 358 Appendix 3, RPS Power Supply Transfer Half Scram Preparation Checklist is complete for this transfer

INITIATING CUES (IF APPLICABLE):

- The Control Room Supervisor directs you to complete the transfer “A” RPS to “A” Motor Generator Set per OI 358, Reactor Protection System continuing at section 6.2, Power Transfer from Alternate Power Supply Source to A[B] Motor Generator Set, Step 3.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM TITLE: **Perform Required Actions for SBGT Filter Overheating/ Emergency Overheating (AP)**

JPM NUMBER: **261000-21** **REV. 0**

TASK NUMBER(S) /
TASK TITLE(S): **7.11 /**
Perform Emergency Overheating Actions

K/A NUMBERS: **261000 A2.03** **K/A VALUE: 3.0 / 3.1**

Justification (FOR K/A VALUES <3.0):

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☐ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** ____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: ☐ Perform: ☒ X

EVALUATION LOCATION:
In-Plant: ☐ Control Room: ☐
Simulator: ☒ X Other: ☐
Lab: ☐

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path [NRC]: YES
Alternate Path [INPO]: YES

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

Protected Content: (CAPRs, corrective actions, licensing commitments, etc. associated with this material)

{C001}

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR#	PREPARER SUPERVISOR	DATE DATE
0.0	Created from PDA 13-1 NRC Exam	Updated critical tasks	N/A	See Cover See Cover	

SIMULATOR SET-UP: *(Only required for simulator JPMs)*

SIMULATOR SETUP INSTRUCTIONS:

1. Reset to any IC
2. Insert the malfunction per below
3. Place the simulator in RUN
4. Push PB7606A on 1C36 to start 'A' SBGT and initiate a Group 3A
5. Run 261000-21.sch and leave it running

SIMULATOR MALFUNCTIONS: See Schedule File

SIMULATOR OVERRIDES: See Schedule File

SIMULATOR REMOTE FUNCTIONS: See Schedule File

SIMULATOR SCHEDULE FILE: 261000-21.sch

261000-21.sch			
At Time	On Event	Action	Description
00:00:00	None	create event 1 zdipchs5814a -desc HS5814A taken to manual	
00:00:00	None	Insert malfunction pc12a to 45.00000	SBGT CHARCOAL HIGH TEMPERATURE- A SGBT
None	1	modify malfunction pc12a from 45.00000 to 72.00000 in 7	SBGT CHARCOAL HIGH TEMPERATURE- A SGBT
None	2	modify malfunction pc12a from 72.00000 to 15.00000 in 20	SBGT CHARCOAL HIGH TEMPERATURE- A SGBT

Required Materials:
- OI 170, Standby Gas Treatment System, current revision
- ARP 1C24, Standby Gas Treatment, current revision
- (1) GE75 Key

General References:
- OI 170, Standby Gas Treatment System, Rev. 65
- ARP 1C24, Standby Gas Treatment, Rev. 36

Task Standards:
- HS-5814A, "A" SBGT Mode Select Switch, in MAN
- PB-5838A, Carbon Bed Deluge Pushbutton, depressed
- PB-5837A, Carbon Bed Deluge Reset Pushbutton, depressed

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:

The initial conditions that I read may not **exactly** match the simulator setup, assume that the conditions that I read you are **the correct** plant conditions.

- Standby Gas Treatment (SBGT) has started on a Group 3 isolation
- No Loss of Coolant Accident (LOCA) is in progress
- "A" SBGT system started as expected; however, it is now overheating
- The TS LCO for the "A" SBGT system has been entered

INITIATING CUES (IF APPLICABLE):

- Perform a Manual Cooldown of the "A" SBGT train in accordance with OI 170, Standby Gas Treatment System, Section 9.1, Manual Cooldown of SBGT System Train

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step: 1 **Critical N (SEQ-)**	**NOTE** These sections may be required at any time after any SBGT train has been used but will most likely be required immediately after a train is transferred from the operating mode to the standby mode or in shutting down a train from the operating mode to the Standby/Readiness condition.
Standard:	The Operator will placekeep the NOTE.
Evaluator Note:	**These actions are taken from OI 170, Standby Gas Treatment System, Section 9.1.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 2 **Critical N (SEQ-)**	At 1C24A[B] confirm carbon bed temperature on TI-5838A[B] CARBON BED TEMP is greater than 150F.
Standard:	The Operator will verify that TI-5838A is indicating a temperature greater than 150F.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 3 **Critical N (SEQ-)**	**NOTE** The following steps will activate the "A"["B"] SBGT IN MANUAL MODE (1C24A[B], C-4) and SBGT PANEL 1C-24 TROUBLE (1C07A, B-11) annunciators.
Standard:	The Operator will placekeep the NOTE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 4 **Critical N (SEQ-)**	**CONTINUOUS RECHECK STATEMENT** (applicable to the remainder of Section 9.1) **IF** bed temperatures are above 255°F and rising, **THEN** IMMEDIATELY proceed to Section 9.2.
Standard:	The Operator will placekeep the Continuous Recheck Statement.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 5 **Critical N (SEQ-)**	**CONTINUOUS RECHECK STATEMENT** (applicable to Step 9.1(3) through the remainder of the section) **IF** the SBGT Mode Select Switch is out of the AUTO position, **THEN** the SBGT Train shall be considered inoperable.
Standard:	The Operator will placekeep the Continuous Recheck Statement.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 6 **Critical N (SEQ-)**	If a LOCA is in progress, have the CRS consider swapping to the off service SBGT bed. After the bed swap, continue on with this section, as resources become available.
Standard:	The Operator will placekeep this step with an "N/A."
Evaluator Note:	**From the turnover sheet no LOCA is in progress.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 7 **Critical N (SEQ-)**	Verify SBGT LCO has been entered, if applicable.
Standard:	The Operator will placekeep this step.
Evaluator Note:	**From the turnover sheet, the LCO has been entered for the "A" SBGT system.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 8 **Critical _Y_ (SEQ-)**	Place A[B] SBGT MODE SELECT Switch HS-5814A[B] in the MAN position on 1C24A[B].
Standard:	The Operator will place HS-5814A[B] in the MAN position at 1C24A.
Evaluator Note:	This action is going to cause the "A" SBGT temperature to rise to a temperature greater than 2550F. The Operator will identify the raising SBGT bed temperature and either exercise the continuous recheck statement **or** take the ARP actions: • transition to Section 9.2, Filter Unit Overheating/ Emergency Overheating, continue to the next Performance Step • Actions per ARP 1C24A (B-3), "A" SBGT Carbon Bed HI Temp Deluge Permissive, will direct the Operator back to Section 9.2
Evaluator Cue:	**IF the Operator reports the rising SBGT Carbon Bed Temperature CUE acknowledge the report and if necessary CUE the Operator to take appropriate actions.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 9 **Critical _N_ (SEQ-)**	**NOTE** At carbon adsorber temperatures of 2550F or more, the operator has the option of manually starting the fire deluge sprays to prevent excessive temperatures and possible hot spots which could cause combustion of the activated charcoal. V-33-88 has to be manually opened to initiate deluge flow.
Standard:	The Operator will placekeep the NOTE.
Evaluator Note:	**The following Operator actions are contained in OI 170, Section 9.2.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 10 **Critical N (SEQ-)**	**CAUTION** Do not manually initiate the Charcoal Filter Bed Fire Protection Deluge System unless absolutely necessary because the SBGT train will be inoperable and it will be necessary to replace the activated charcoal in the unit.
Standard:	The Operator will placekeep the CAUTION.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 11 **Critical N (SEQ-)**	**CONTINUOUS RECHECK STATEMENT** (applicable to Section 9.2) **IF** fire deluge sprays are automatically activated at 3100F, **THEN** proceed to Step (4) immediately.
Standard:	The Operator will placekeep the Continuous Recheck Statement.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 12 **Critical N (SEQ-)**	Confirm the "A"["B"] SBGT CARBON BED HI TEMP DELUGE PERMISSIVE (1C24A[B], B-3) annunciator.
Standard:	The Operator will confirm the 1C24A (B-3), "A" SBGT Carbon Bed HI TEMP Deluge Permissive, annunciator.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 13 **Critical Y (SEQ-)**	On 1C24A[B], perform the following: (a) Verify CARBON BED TEMP TI-5838A[B] indicates above 255°F, otherwise attempt to cool the affected bed per Section 9.1 (b) As directed by the CRS, depress CARBON BED DELUGE pushbutton PB-5838A[B] for the affected SBGT Train.
Standard:	The Operator will: (a) determine that CARBON BED TEMP TI-5838A[B] indicates above 255°F (b) depress CARBON BED DELUGE pushbutton PB-5838A
Evaluator Note:	**The Critical Step is that the Operator depresses PB-5838A.**
Evaluator Cue:	**IF the Operator requests direction to initiate the Carbon Bed Deluge, CUE the Operator to cool the Carbon Bed.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 14 **Critical N (SEQ-)**	If the Fire Protection System is initiated, perform the following: (a) Near North Recirc MG air lock door OPEN V-33-88 SBGT DELUGE SYSTEM 19 & 20 SHUTOFF (b) Verify that Deluge Valves CV-5837A[B] open as indicated by lower bed temperatures on 1C24A[B] (c) Verify that the emergency stop signal sent to the controls of A[B] SBGT TRAIN has performed the following on 1C24A[B]: 1. Closed COOLDOWN/OUTSIDE AIR VLV AV-5801A[B] 2. Opened INTAKE VALVE AV-5825A[B] 3. Closed FAN INLET VALVE AV-5815A[B] 4. Stopped EXHAUST FAN 1V-EF-15A[B]
Standard:	The Operator will: (a) direct an In-plant Operator to OPEN V-33-88, SBGT DELUGE SYSTEM 19 & 20 SHUTOFF (b) determine that CV-5837A[B] is open by observing lowering bed temperatures (c) determine that the emergency stop signal sent to the controls of A SBGT TRAIN by determining the following: 1. COOLDOWN/OUTSIDE AIR VLV AV-5801A indicates CLOSED 2. INTAKE VALVE AV-5825A indicates OPEN 3. FAN INLET VALVE AV-5815A indicates CLOSED 4. EXHAUST FAN 1V-EF-15A indicates STOPPED
Evaluator Note:	**The Operator will contact the Simulator Operator by using the PAGE to direct the action to open V-33-88.** **WHEN contacted as the In-Plant Operator, ACTIVATE ET 2 and REPORT that V-33-88 is OPEN.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 15 **Critical _N_ (SEQ-)**	Verify SBGT LCO has been entered, if applicable.
Standard:	The Operator will placekeep the step.
Evaluator Note:	**This information was provided in the Turnover Sheet.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 16 **Critical _N_ (SEQ-)**	Verify Verify A[B] SBGT MODE SELECT HS-5814A[B] in MAN position on 1C24A[B].
Standard:	The Operator will determine at 1C24 that HS-5814A, A SBGT MODE SELECT, is in the MAN position.
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 17 **Critical _N_ (SEQ-)**	Place HS-5801A[B] COOLDOWN/OUTSIDE AIR VLV AV-5801A[B] to CLOSE.
Standard:	The Operator will place HS-5801A, COOLDOWN/OUTSIDE AIR VLV AV-5801A, in CLOSE.
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 18 **Critical N (SEQ-)**	Momentarily place HS-5816A[B] EXHAUST FAN 1V-EF-15 A[B] to STOP.
Standard:	The Operator will momentarily place HS-5816A, EXHAUST FAN 1V-EF-15 A, to STOP.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 19 **Critical N (SEQ-)**	Place Fan Inlet valve AV-5815A[B] handswitch, HS-5815A[B], in CLOSE.
Standard:	The Operator will place handswitch, HS-5815A,Fan Inlet valve AV-5815A, in CLOSE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 20 **Critical N (SEQ-)**	**CAUTION** Care should be taken not to run high contaminated water into the small sump any longer than necessary.
Standard:	The Operator will placekeep the CAUTION.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 21 Critical _Y_ (SEQ-)	When the deluge water is no longer required, as bed temperatures drop below 150°F, depress the CARBON BED DELUGE RESET Pushbutton, PB-5837A[B] on 1C24A[B].
Standard:	The Operation will: • determine that Carbon Bed Temperature has lowered to less than 150°F • at 1C24A depress, PB-5837A, CARBON BED DELUGE RESET, pushbutton
Evaluator Note:	**The Critical Step is for the Operator to depress PB-5837A.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **WHEN the Operator contacts the In-Plant Operator to close V-33-88, CUE the Operator that the JPM is complete.**

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

The initial conditions that I read may not **exactly** match the simulator setup, assume that the conditions that I read you are **the correct** plant conditions.

- Standby Gas Treatment (SBGT) has started on a Group 3 isolation
- No Loss of Coolant Accident (LOCA) is in progress
- "A" SBGT system started as expected; however, it is now overheating
- The TS LCO for the "A" SBGT system has been entered

INITIATING CUES (IF APPLICABLE):

- Perform a Manual Cooldown of the "A" SBGT train in accordance with OI 170, Standby Gas Treatment System, Section 9.1, Manual Cooldown of SBGT System Train

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM TITLE: **ESTABLISH A LEAKAGE PATH TO THE MAIN CONDENSER IAW AOP 672.2, OFFGAS RADIATION/REACTOR COOLANT HIGH ACTIVITY.**

JPM NUMBER: **272000-04** **REV. 0**

TASK NUMBER(S) / TASK TITLE(S): **94.21/ Respond to Off-Gas Radiation/Reactor Coolant High Activity Condition.**

K/A NUMBERS: **2.2.12** **K/A VALUE: A2.11 3.4/3.7**

Justification (FOR K/A VALUES <3.0):

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☐ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** _____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]
Simulator: [X] Other: [ ]
Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path [NRC]: YES
Alternate Path [INPO]: YES

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

Protected Content: (CAPRs, corrective actions, licensing commitments, etc. associated with this material)

{C001}

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR#	PREPARER SUPERVISOR	DATE DATE
Rev. 0					

SIMULATOR SET-UP: *(Only required for simulator JPMs)*

SIMULATOR SETUP INSTRUCTIONS:

1. Reset the IC snapshot from the “Thumb Drive” that it is stored on.
   a. Verify Malfunction and Override per tables below
2. If the snapshot is not available, then reset to IC 20 and perform the following:
   a. Insert a manual scram and stabilize the plant.
   b. Bypass the Main Condenser High Back pressure trip on 1C15 and 1C17 by taking handswitches A71BS31A/C and A71BS31B/D to BYPASS.
   c. Close the MSIVs and MSL Drains.
   d. Open the Main Condenser vacuum breakers V-03-67 and V-03-73.
   e. Insert the Malfunctions and overrides per tables below.
3. Mark AOP 672.2 marked to Step 12.
4. Place the simulator in RUN.

SIMULATOR OVERRIDES:

Key	Description	ET	Delay	Inserted	Ramp	Initial	Value	Final
DI-MS-031	HS-1043 MSL HEADER DRAINS BYPASS		00:00:00		00:00:00		NORM	NORM
DO-MS-079	HS-1043(1) MSL HEADER DRAINS BYPASS MO-1043 (GREEN)		00:00:00		00:00:00		ON	OFF
DO-MS-080	HS-1043(2) MSL HEADER DRAINS BYPASS MO-1043 (RED)		00:00:00		00:00:00		OFF	OFF
DI-MS-032	HS-1044 MSL DRAIN ORFICE BYPASS		00:00:00		00:00:00		NORM	NORM
DO-MS-081	HS-1044(1) MSL DRAIN ORFICE BYPASS MO-1044 (GREEN)		00:00:00		00:00:00		ON	OFF
DO-MS-082	HS-1044(2) MSL DRAIN ORFICE BYPASS MO-1044 (RED)		00:00:00		00:00:00		OFF	OFF

Required Materials: AOP 672.2

General References: AOP 672.2, Rev. 38

Task Standards:

1. MO-1362A Closed
2. MO-1362B Closed
3. MO-1169 Closed
4. MO-1170 Closed
5. MO-1054 Closed
6. MO-1055 Closed
7. CV-1064 Open (Alternate Path)

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:

The initial conditions that I read may not **exactly** match the simulator setup, assume that the conditions that I read you are **the correct** plant conditions.

- A plant transient has occurred which has resulted in a reactor scram.
- AOP 672.2, Offgas Radiation/Reactor Coolant High Activity, has been entered due to fuel failure.
- The MSIVs have isolated.
- HP has been notified that rad levels in the Torus room and areas of the Reactor Building may rise significantly.
- Other Operators are monitoring RB and TB Kaman's for abnormal rad trends.

INITIATING CUES (IF APPLICABLE):

- The CRS directs you to establish a leakage path to the main condenser in accordance with AOP 672.2, Follow-up Action, Step 12.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step: 1 **Critical N** AOP 672.2, FOLLOW-UP ACTIONS, Step 12.	**IF** the MSIVs are closed and fuel failure is suspected, **THEN** obtain permission from the CRS and establish a leakage path to the main condenser as follows:
Standard:	Obtains CRS permission to perform Step 12 of the AOP 672.2, Follow-up Actions.
Evaluator Note:	**Initial Conditions and Initial Cues provide direction and gives permission.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	

Performance Step: 2 **Critical Y** AOP 672.2, FOLLOW-UP ACTIONS 12. a.	**IF** the MSIVs are closed and fuel failure is suspected, **THEN** obtain permission from the CRS and establish a leakage path to the main condenser as follows: At 1C04, isolate the main steam supply to Offgas and SJAEs by placing the following handswitches in the CLOSE position, allowing the switches to return to their normal position, and verifying the following valves CLOSED: Switch — Description HS-1362A — SJAE & OFFGAS MSL A STEAM SUPPLY MO-1362A
Standard:	Isolates the main steam supply to “A” Offgas and SJAEs.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 2 **Critical Y** AOP 672.2, FOLLOW-UP ACTIONS 12. a.	**IF** the MSIVs are closed and fuel failure is suspected, **THEN** obtain permission from the CRS and establish a leakage path to the main condenser as follows: At 1C04, isolate the main steam supply to Offgas and SJAEs by placing the following handswitches in the CLOSE position, allowing the switches to return to their normal position, and verifying the following valves CLOSED: Switch — Description HS-1362B — SJAE & OFFGAS MSL B STEAM SUPPLY MO-1362B
Standard:	Isolates the main steam supply to “B” Offgas and SJAEs.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 3 **Critical Y** AOP 672.2, FOLLOW-UP ACTIONS 12. b.	**IF** the MSIVs are closed and fuel failure is suspected, **THEN** obtain permission from the CRS and establish a leakage path to the main condenser as follows: At 1C07, isolate the main steam supply to the Turbine Steam Seal System by placing the following handswitches in the CLOSE position, allowing the switches to return to their normal position, and verifying the following valves CLOSED: Switch — Description HS-1169 — MAIN STEAM SUPPLY MO-1169
Standard:	Isolates the main steam supply valves to the Turbine Steam Seal System.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 4 **Critical Y** AOP 672.2, FOLLOW-UP ACTIONS 12. b.	**IF** the MSIVs are closed and fuel failure is suspected, **THEN** obtain permission from the CRS and establish a leakage path to the main condenser as follows: At 1C07, isolate the main steam supply to the Turbine Steam Seal System by placing the following handswitches in the CLOSE position, allowing the switches to return to their normal position, and verifying the following valves CLOSED: Switch — Description HS-1170 — REGULATOR BYPASS MO-1170
Standard:	Isolates the main steam supply valves to the Turbine Steam Seal System.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 5 **Critical Y** AOP 672.2, FOLLOW-UP ACTIONS 12. c.	**IF** the MSIVs are closed and fuel failure is suspected, **THEN** obtain permission from the CRS and establish a leakage path to the main condenser as follows: At 1C07, verify that the main steam supply to MSR 2nd Stage Reheat is isolated by verifying the following handswitch is in the CLOSE position, allowing the switches to return to their normal position, and verifying the following valves CLOSED: Switch — Description HS-1054 — MAIN STEAM TO MSR SECOND STAGE MO-1054 & MO-1055
Standard:	Verifies that the main steam supply to MSR 2nd Stage Reheat is isolated.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 6 **Critical N** AOP 672.2, FOLLOW-UP ACTIONS 12. d.	**IF** the MSIVs are closed and fuel failure is suspected, **THEN** obtain permission from the CRS and establish a leakage path to the main condenser as follows: At 1C07, verify that Mechanical Vacuum Pump 1P-32 is secured by placing HS-1377 to the STOP position, allowing the switch to return to the normal position, and verifying the Mechanical Vacuum Pump 1P-32 is secured.
Standard:	Verifies that the Mechanical Vacuum Pump is secured by placing handswitch to the STOP position
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 7 **Critical N** AOP 672.2, FOLLOW-UP ACTIONS 12. e.	**IF** the MSIVs are closed and fuel failure is suspected, **THEN** obtain permission from the CRS and establish a leakage path to the main condenser as follows: At 1C04, establish the preferred MSIV leakage path by placing the following handswitches in the OPEN position, allowing the switches to return to their normal position, and verifying the following valves OPEN: Switch — Description HS-1043 — MSL HEADER DRAINS BYPASS MO-1043
Standard:	Establishes the preferred MSIV leakage.
Evaluator Cue:	**Acknowledge the report and if asked, inform the student to continue with the AOP.**
Performance:	SATISFACTORY _____ UNSATISFACTORY _____
Comments:	_____

Performance Step: 8 **Critical N** AOP 672.2, FOLLOW-UP ACTIONS 12. e.	**IF** the MSIVs are closed and fuel failure is suspected, **THEN** obtain permission from the CRS and establish a leakage path to the main condenser as follows: At 1C04, establish the preferred MSIV leakage path by placing the following handswitches in the OPEN position, allowing the switches to return to their normal position, and verifying the following valves OPEN: Switch — Description HS-1044 — MSL DRAIN ORIFICE BYPASS MO-1044
Standard:	Establishes the preferred MSIV leakage.
Evaluator Cue:	**Acknowledge the report and if asked inform the student to continue with the AOP.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 9 **Critical Y** AOP 672.2, FOLLOW-UP ACTIONS 12. f.	**IF** the preferred MSIV leakage path cannot be established, (i.e. MO-1043 or MO-1044 cannot be opened), **THEN** establish the Alternate MSIV Leakage Path by placing the following handswitch at 1C04 in the OPEN position, and verifying the following valve OPEN: Switch — Description HS-1064 — MSL HEADER DRAIN CV-1064
Standard:	Establishes Alternate leakage path.
Evaluator Cue:	**As the CRS, acknowledge the report.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Terminating Cues: WHEN the student reports the alternate path has been established, inform him the JPM is complete.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

The initial conditions that I read may not **exactly** match the simulator setup, assume that the conditions that I read you are **the correct** plant conditions.

- A plant transient has occurred which has resulted in a reactor scram.
- AOP 672.2, Offgas Radiation/Reactor Coolant High Activity, has been entered due to fuel failure.
- The MSIVs have isolated.
- HP has been notified that rad levels in the Torus room and areas of the Reactor Building may significantly rise.
- Other operators are monitoring RB and TB Kaman's for abnormal rad trends.

INITIATING CUES (IF APPLICABLE):

- The CRS directs you to establish a leakage path to the main condenser in accordance with AOP 672.2, Follow-up Action, Step 12.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM TITLE: **RESET THE RCIC OVERSPEED TRIP**

JPM NUMBER: **217000-14** **REV. 5**

TASK NUMBER(S) / TASK TITLE(S): **NSPEO 150-01.03 / Reset the RCIC turbine trip**

K/A NUMBERS: **217000 EA1.05** **K/A VALUE: 3.9/4.0**

Justification (FOR K/A VALUES <3.0): **N/A**

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☒ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** ____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: [X] Perform: [ ]

EVALUATION LOCATION: In-Plant: [X] Control Room: [ ]
Simulator: [ ] Other: [ ]
Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path [NRC]: NO
Alternate Path [INPO]: NO

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

Protected Content: (CAPRs, corrective actions, licensing commitments, etc. associated with this material)

{C001}

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR#	PREPARER SUPERVISOR	DATE DATE
Rev. 4					
Rev. 5	Update instructor cues and align with procedure revisions	Align with procedure revisions and provide evaluator better cues.		Mark Walter See Cover	02/16/16 See Cover
5.1	Updated turnover sheet for consistency.	PDA 17-1 NRC Exam	N/A		

SIMULATOR SET-UP: *(Only required for simulator JPMs)*

SIMULATOR SETUP INSTRUCTIONS:
Mark the Cautions and Steps (1)(a)-(c) completed. These are the control room steps that are given as completed in the initial conditions.
Include Appendix 2 in marked up copy.

SIMULATOR MALFUNCTIONS: None

SIMULATOR OVERRIDES: None

SIMULATOR REMOTE FUNCTIONS: None

Required Materials:
1. OI 150 Section 3.3 and Appendix 2

General References:
1. OI 150, Rev. 85

Task Standards:
1. Move the spring loaded emergency connecting rod against the spring force, moving the emergency head lever away from the emergency tappet and tappet nut.
2. Ensure the emergency tappet moves in the downward direction and the tappet nut locates in the “trip reset” position on the head bracket to hold the emergency connecting rod in position under spring tension.

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:

- RCIC has tripped on a mechanical overspeed
- MO2404, Turbine Steam Supply Valve is closed
- MO2405, Turbine Stop Valve, will not reopen and MO2405 Motor Control indicates full closed
- Steps 1.a through 1.c are completed

INITIATING CUES (IF APPLICABLE):

The Control Room Supervisor directs you to reset the RCIC mechanical overspeed trip in accordance with OI 150, RCIC System, Section 3.3, starting at Step 1.d.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step: 1 **Critical Y**	(1) Reset the turbine trip as follows: (d) 1. Move the spring loaded emergency connecting rod against the spring force, moving the emergency head lever away from the emergency tappet and tappet nut.
Standard:	Simulate moving the connecting rod against spring pressure while the next step is being performed.
Evaluator Cue:	**The connecting rod moves as described (to the left).**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	

Performance Step: 2 **Critical Y**	(1) Reset the turbine trip as follows: (d) 2. Ensure the emergency tappet moves in the downward direction and the tappet nut locates in the "trip reset" position on the head bracket to hold the emergency connecting rod in position under spring tension.
Standard:	Simulate moving the Emergency tappet in the downward direction, or discuss that it should move down on its own, and that the tappet nut locates in the "trip reset" position.
Evaluator Note:	**Operator may also discuss lifting the trip lever and/or pushing down the tappet nut.**
Evaluator Cue:	**The emergency tappet moves as described.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	

Performance Step: 3 **Critical N**	(1) Reset the turbine trip as follows: (d) 3.Place and hold HS-2405 in the OPEN position until the Motor Operator Control indicates full open.
Standard:	Candidate calls the control room and informs the control room operator that the mechanical overspeed trip mechanism has been reset and the next step is to "Place and hold HS-2405 in the OPEN position until the Motor Operator Control indicates full open."
Evaluator Cue:	**The Motor Operator and MO2405 indicate full open.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	

Performance Step: 4 **Critical N**	(1) Reset the turbine trip as follows: (e)Verify Turbine Stop Valve MO-2405 indicates full open.
Standard:	Candidate place keeps the step as complete.
Evaluator Note:	**This was cued in the previous step.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	

Performance Step: 5 **Critical N**	(1) Reset the turbine trip as follows: (f) Verify RCIC MO-2405 TURBINE TRIP (1C04C, A-5) annunciator is clear
Standard:	Candidate calls the control room and verifies the annunciator is reset.
Evaluator Cue:	**Annunciator 1C04C, A-5 is reset.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	

Terminating Cues: When operator reads the Note and then step to proceed to section 3.4, inform the operator that the JPM is complete.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

- RCIC has tripped on a mechanical overspeed
- MO2404, Turbine Steam Supply Valve is closed
- MO2405, Turbine Stop Valve, will not reopen and MO2405 Motor Control indicates full closed
- Steps 1.a through 1.c are completed

INITIATING CUES (IF APPLICABLE):

The Control Room Supervisor directs you to reset the RCIC mechanical overspeed trip in accordance with OI 150, RCIC System, Section 3.3, starting at Step 1.d.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM TITLE: Rotate the A Diesel Generator 1G-31 with Air with Emergency Start Signal

JPM NUMBER: 264000-13 **REV.** 0

TASK NUMBER(S) / TASK TITLE(S): NSPEO 324-03.02 / SUPPORT SHUTDOWN OF THE A(B) SBDG AND RETURN TO STANDBY READINESS

K/A NUMBERS: 264000 A2.09 **K/A VALUE:** 3.7 / 4.1

Justification (FOR K/A VALUES <3.0): N/A

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☒ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** ____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: [X] Perform: [ ]

EVALUATION LOCATION: In-Plant: [X] Control Room: [ ]
Simulator: [ ] Other: [ ]
Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path [NRC]: NO
Alternate Path [INPO]: NO

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

Protected Content: (CAPRs, corrective actions, licensing commitments, etc. associated with this material)

{C001}

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR #	PREPARER SUPERVISOR	DATE DATE
Rev. 0	Modified from 264000-07 for LOIT NRC Exam	17-1 LOIT NRC Exam	N/A	See Cover See Cover	

SIMULATOR SET-UP: None

SIMULATOR SETUP INSTRUCTIONS: None

SIMULATOR MALFUNCTIONS: None

SIMULATOR OVERRIDES: None

SIMULATOR REMOTE FUNCTIONS: None

Required Materials:
- OI 324, Standby Diesel Generator System, current revision

General References:
- OI 324, Standby Diesel Generator System, Rev. 119

Task Standards:
- Overspeed trip is RESET
- Depress pushbutton HS-3253A ALARM RESET

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:

- 1G-31, 'A' SBDG was shutdown 45 minutes ago following an auto start due to a lightning strike in the Switchyard
- The SBDG and ESW Subsystem LCOs have been entered
- The 'A' ESW pump, 1P-99A, has been secured

INITIATING CUES (IF APPLICABLE):

You are to continue actions to return 1G-31 to the standby readiness condition.

The Control Room Supervisor directs you to rotate the A Diesel Generator with air in accordance with OI 324, Section 8.5.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step: 1 **Critical N**	**NOTE** Depressing the Emergency Stop Pushbutton (Overspeed Trip) renders the associated Diesel Generator and associated ESW Subsystem INOPERABLE per TS 3.8.1.b and TS 3.7.3.
Standard:	The Operator will placekeep the NOTE.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 2 **Critical N**	**CONTINUOUS RECHECK STATEMENT** **IF** standby lube oil temperature falls below 105F **and** the standby lube oil pump 1G031/LOP is running, **THEN** rotate the engine one revolution every 15 minutes until lube oil temperature is greater than 110F. (refer P&L (2))
Standard:	The Operator will placekeep the Continuous Recheck Statement.
Evaluator Cue:	**IF asked about the lube oil temperature, CUE the Operator that the lube oil temperature is 130°F and constant.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 3 **Critical N**	Wait until after the diesel engine has been shut down greater than 30 minutes but less than 4 hours, then rotate the engine to remove oil from the overpiston areas.
Standard:	The Operator will placekeep the step from the conditions provided in the Turnover Sheet.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 4 **Critical N**	Verify associated SBDG and ESW Subsystem LCOs has been entered.
Standard:	The Operator will placekeep the step from the conditions provided in the Turnover Sheet.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 5 **Critical N**	**CONTINUOUS RECHECK STATEMENT** **IF** During the performance of Section 8.5 steps (3) through (11), 1G31 gets an emergency start signal, **THEN** rapidly perform Section 8.5 steps (10)(a) and (11), mark other steps N/A as needed.
Standard:	The Operator will placekeep the Continuous Recheck Statement.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 6 **Critical N**	Perform the following substeps: (a) Inform Control Room that tripping the associated fuel rack in the next Step will render the associated SBDG inoperable and will disable the associated ESW pump auto-start feature rending the associated ESW Subsystem inoperable. [ref. P&L (31)]
Standard:	The Operator will contact the Control Room Operator and inform them of the INOPERABILITY of the "A" SBDG and the "A" ESW Subsystem.
Evaluator Cue:	**WHEN contacted as the Control Room Operator, CUE the Operator that the "A" SBDG and the "A" ESW Subsystem will be INOPERABLE.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 7 **Critical N**	Perform the following substeps: (b) Trip injection pump control racks by depressing the Emergency Stop Pushbutton (overspeed trip) at the engine.
Standard:	The Operator will simulate depressing the Emergency Stop Pushbutton.
Evaluator Cue:	**WHEN the Operator simulates depressing the Emergency Stop Pushbutton, CUE the Operator that the fuel racks have tripped.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 8 **Critical N**	At 1C93, confirm annunciator ENGINE OVERSPEED (1C93, A-1) is activated.
Standard:	The Operator will confirm annunciator 1C93, A-1 has activated.
Evaluator Cue:	**WHEN the Operator investigates 1C93, CUE the Operator that 1C93 <A-1> has activated.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 9 **Critical N**	Close V-32-112, AIR ISOLATION TO OIL BOOSTER TANKS. This is located on the northwest end of the engine near inspection cover 13.
Standard:	The Operator will placekeep steps 5 through 9 with an "N/A."
Evaluate Note:	**The Operator will proceed to Section 8.5, Steps 10.a and 11.**
Evaluator Cue:	**AFTER the Operator has located V32-0112 and before closing the valve, CUE the Operator that they hear the following Plant Page:** **"Reactor SCRAM, Reactor SCRAM due to a loss of offsite power."** **IF contacted as a Control Room Operator, CUE the Operator that standby diesel generator operation is required.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 10 **Critical Y (SEQ-)**	Reset the overspeed trip using the reset lever (located near the Emergency Trip Pushbutton) as follows: (a) Take the reset lever to the reset position (e.g., feel the latch drop in place, hear a click), then release the reset lever.
Standard:	The Operator will simulate taking the reset lever to the reset position (e.g., feel the latch drop in place, hear a click), then release the reset lever.
Evaluator Note:	**The Operator will NOT complete the Independent Verification Step.**
Evaluator Cue:	**WHEN the Operator simulates taking the reset lever to the reset position, CUE the Operator that:** **"The reset lever has been taken to the reset position and you heard a click and felt it latch."**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 11 **Critical Y**	On 1C91, depress pushbutton HS-3253A ALARM RESET to clear the Shutdown Relay Signal.
Standard:	The Operator will simulate depressing pushbutton HS-3253A ALARM RESET.
Evaluator Cue:	**WHEN the Operator simulates depressing HS-3253A, CUE the Operator that:** **"The pushbutton, HS-3253A, has been depressed. Time Compression has been used and you hear the A SBDG cranking and starting without issues."**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Terminating Cues: **WHEN the A SBDG is simulated running, CUE the Operator that this JPM is complete.**

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

- 1G-31, 'A' SBDG was shutdown 45 minutes ago following an auto start due to a lightning strike in the Switchyard
- The SBDG and ESW Subsystem LCOs have been entered
- The 'A' ESW pump, 1P-99A, has been secured

INITIATING CUES (IF APPLICABLE):

You are to continue actions to return 1G-31 to the standby readiness condition.

The Control Room Supervisor directs you to rotate the A Diesel Generator with air in accordance with OI 324, Section 8.5.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM TITLE: **SWITCH CRD PUMP DISCHARGE FILTERS**

JPM NUMBER: **201001-03** **REV. 14**

TASK NUMBER(S) / TASK TITLE(S): **NSPEO 255-0403/ Switch CRD Pump Discharge Filters**

K/A NUMBERS: **201001** **K/A VALUE: A2.02 3.2 / 3.3**

Justification (FOR K/A VALUES <3.0):

TASK APPLICABILITY:
☒ **RO** ☒ **SRO** ☐ **STA** ☒ **Non-Lic** ☒ **SRO CERT** ☐ **OTHER:** _____

APPLICABLE METHOD OF TESTING: Simulate/Walkthrough: [X] Perform: [ ]

EVALUATION LOCATION: In-Plant: [X] Control Room: [ ]
Simulator: [ ] Other: [ ]
Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path [NRC]: NO
Alternate Path [INPO]: NO

Developed by:	Instructor/Developer	Date
Reviewed by:	Instructor (Instructional Review)	Date
Validated by:	SME (Technical Review)	Date
Approved by:	Training Supervision	Date
Approved by:	Training Program Owner	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED 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.	Do 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 job 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.	Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11.	Have the performance steps been identified and classified (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12.	Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13.	Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14.	Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15.	Are all critical steps supported by procedural guidance? (e.g., if licensing, EP or other groups were needed to determine correct actions, then the answer should be NO.)	☐	☐	☐
16.	If the JPM is to be administered to an LOIT student, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge.	☐	☐	☐

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

UPDATE LOG: Indicate in the following table any minor changes or major revisions (as defined in TR-AA-230-1003) made to the material after initial approval. Or use separate Update Log form TR-AA-230-1003-F16.

#	DESCRIPTION OF CHANGE	REASON FOR CHANGE	AR/TWR#	PREPARER SUPERVISOR	DATE DATE
Rev. 13					
Rev. 14	Update instructor cues and align with procedure revisions	Align with procedure revisions and provide evaluator better cues.		Mark Walter See Cover	02/16/16 See Cover
14.1	Update JPM for clarification and evaluator cue enhancements	PDA 17-1 NRC Exam	N/A		

SIMULATOR SET-UP: *(Only required for simulator JPMs)*

SIMULATOR SETUP INSTRUCTIONS: None

Required Materials:
- OI 255, Control Rod Drive Hydraulic System, current revision

General References:
- OI 255, Control Rod Drive Hydraulic System, Rev. 93

Task Standards:
- Open the Combined Vent/Drain Line Isolation, V-17-20[17]
- Crack open CRD Pump Discharge Filter 1F-201B[A] Vent Valve V-17-18[15] and vent as necessary
- Close V-17-18[15]
- Close V-17-20[17]
- Slowly Open Outlet Isolation Valve V-17-22[21]
- Slowly Close Outlet Isolation Valve V-17-21[22]

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:

- Plant is operating at full power and steady state. CRD system is in its normal configuration with the exception of reference leg backfill.
- During review of the NSPEO logs, the NLO identified that the reading on the PDIS 1812, CRD Discharge Filter ΔP is reading 11 psid and initiated a WO to change the filter.

INITIATING CUES (IF APPLICABLE):

The Control Room Supervisor (CRS) directs you to place the standby CRD discharge filter 1F-201B[A] into service IAW OI-255, Control Rod Drive Hydraulic System.

- The CRS has authorized the use of torque amplifying devices to operate valves, as required.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

JPM PERFORMANCE INFORMATION

Start Time: _____

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.

Performance Step: 1 **Critical N**	**CAUTION** Since the CRD Pump Discharge Filters are normally pressurized to 1500 psig, valve operations should be performed carefully.
Standard:	The Operator will placekeep the CAUTION.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 2 **Critical N**	Verify the following valve positions for standby CRD Pump Dscharge Filter 1F-201B: Inlet Isolation Valve V-17-14[13] OPEN Outlet Isolation Valve V-17-22[21] CLOSED
Standard:	The Operator will: • Simulates rotating V-17-14[13] handwheel clockwise (CLOSE), verifies rotation, and simulates rotating handwheel fully counter clockwise (OPEN). • **OR** could verify position of the rising stem gate valve initially down and as the valve is opened, the rising stem rises. • Simulates rotating V-17-22[21] clockwise and verifies rotation does not occur. Also could verify the rising stem gate valve rising stem is fully down.
Evaluator Cue:	**WHEN the Operator asks about valve response, CUE the Operator of valve movements based on above standard and Operators actions (hand wheel turns in that direction, etc.)**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 3 **Critical Y**	Vent Filter 1F-201B[A] as follows: • Open Combined Vent/Drain Line Isolation V-17-20[17].
Standard:	The Operator will simulate opening V-17-20[17].
Evaluator Cue:	**WHEN asked and the Operator demonstrates moving the valve handwheel in the counter clockwise direction (OPEN), CUE the Operator that the valve turns in the CCW direction for a while then stops.** **IF contacted as the Rad Waste Operator about a draining evolution, CUE the Operator that Rad Waste can receive the water.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 4 **Critical Y**	Vent Filter 1F-201B[A] as follows: • Crack open CRD Pump Discharge Filter 1F-201B[A] Vent Valve V-17-18[15] and vent as necessary.
Standard:	The Operator will simulate cracking open 1F-201B Vent Valve V-17-18[15].
Evaluator Cue:	**WHEN asked and the Operator demonstrates turning valve handwheel CCW, CUE the Operator that the valve turns in the CCW direction.** **IF asked about flow noise, CUE the Operator that flow noise was erratic but is now constant.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 5 Critical Y	Vent Filter 1F-201B[A] as follows: • Close V-17-18[15].
Standard:	The Operator will simulate closing V-17-18[15].
Evaluator Cue:	**WHEN asked and the Operator demonstrates turning the valve handwheel CW, CUE the Operator the valve turns in the CW direction until it stops.** **After the valve is closed and when asked, CUE the Operator that flow noise has stopped.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 6 Critical Y	Vent Filter 1F-201B[A] as follows: • Close V-17-20[17]
Standard:	The Operator will simulate closing V-17-20[17].
Evaluator Cue:	**WHEN asked and the Operator demonstrates the valve handwheel CW, CUE the Operator that the valve turns in the CW direction until it stops.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 7 **Critical N**	**CONTINUOUS RECHECK STATEMENT** **IF** PDIS-1812 CRD Pump Discharge Filter High Diff Pressure rises while transferring to the standby filter, **THEN** stop the evolution, and inform the CRS.
Standard:	The Operator will placekeep the Continuous Recheck Statement.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 8 **Critical Y**	Slowly open Outlet Isolation Valve V-17-22[21].
Standard:	The Operator will simulates slowly opening V-17-22[21].
Evaluator Cues:	**IF asked about PDIS-1812 indication, CUE the Operator PDIS-1812 lowers during the transfer. Provide lowering values down to 4 psid as necessary.** **IF asked and the Operator demonstrates turning the valve handwheel CCW, CUE the Operator the valve turned CCW until it stopped. The stem has risen.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: 9 Critical Y	Slowly close Outlet Isolation Valve V-17-21[22].
Standard:	The Operator will simulate closing V-17-21[22].
Evaluator Cue:	**WHEN asked and the Operator demonstrates turning the valve handwheel Clockwise (CW), CUE the Operator the valve turned CW until it stopped. The stem has gone down.** **IF asked about PDIS-1812 indication, CUE the Operator PDIS-1812 lowers during the transfer. Provide lowering values down to 4 psid as necessary.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 10 Critical N	At 1C05, verify that CRD System flow is 40 gpm and drive water pressure is approximately 260 psid as indicated on FI-1814 CRD SYSTEM FLOW and PDI-1825A (CRD PRESSURE) DRIVE WATER ΔP, respectively.
Standard:	Control room operator directed to verify system flow of 40 GPM and drive water pressure of approximately 260 psid. (simulated)
Evaluator Cue:	**WHEN contacted as an Operator in the Control Room, CUE the Operator that CRD system flow is 40 gpm and drive water ΔP is about 260 psid.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **After the control room is contacted verifying proper system parameters, inform the student that this JPM is complete.**

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **Non-Lic** ☐ **SRO CERT** **Date:** _____

☐ **LOIT RO** ☐ **LOIT SRO**

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

Remediation required: **YES** ☐ **NO** ☐

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

EXAMINER NOTE: ENSURE ALL EXAM MATERIAL IS COLLECTED AND PROCEDURES CLEANED, AS APPROPRIATE.

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.

TURNOVER SHEET

INITIAL CONDITIONS:

- Plant is operating at full power and steady state. CRD system is in its normal configuration with the exception of reference leg backfill.
- During review of the NSPEO logs, the NLO identified that the reading on the PDIS 1812, CRD Discharge Filter ΔP is reading 11 psid and initiated a WO to change the filter.

INITIATING CUES (IF APPLICABLE):

The Control Room Supervisor (CRS) directs you to place the standby CRD discharge filter 1F-201B[A] into service IAW OI-255, Control Rod Drive Hydraulic System.

- The CRS has authorized the use of torque amplifying devices to operate valves, as required.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator.