Job Performance Measure

Perform an Emergency Boration from the RWST

JPM Number: SIM-113

Revision Number: 151

Date: 03 / 09 / 2016

Developed By:	Eric Steinberg Instructor	03/09/2016 Date
Validated By:	Dan Burton SME or Instructor	04/22/2016 Date
Reviewed By:	Kevin Lueshen Operations Representative	04/22/2016 Date
Approved By:	Eric Steinberg Training Department	04/26/2016 Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. If an alternate path is used, the task standard contains criteria for successful completion.

_____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure 1BwOA PRI-2 Rev: 101
Procedure 1BwEP ES-0.1 Rev: 204

_____ 10. Verify cues both verbal and visual are free of conflict.

_____ 11. Verify performance time is accurate

_____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

Revision 151, updated to TQ-AA-150-J020 template format and verified latest procedure revisions

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC-21 or equivalent 100% power IC.

> NOTE: It is okay to use a similar IC to the IC listed above, provided the IC actually used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

2. Stick rod G03 and C07 in shutdown bank B at 220 steps as follows, then trip reactor.
   2.1. **IMF RD05G03 226**
   2.2. **IMF RD05C07 226**
3. Insert Rx trip.
4. To simulate a clogged boric acid filter, close AB8460 as follows:
   4.1. **IRF CV33 remf 08**
5. Ensure VCT level is greater than 52%.
6. When the above steps are completed for this and other JPMs to be run concurrently then validate, if not previously validated, the concurrently run JPMs using the JPM Validation Checklist.
7. Ensure a copy of 1BwEP ES-0.1 is marked up with step one complete is available for the examinee.
8. If this JPM will be run with other JPM's and repeated consider snapping an IC after all the JPMS are set-up.
9. To run this JPM again realign the following control switches OR reset to the snapped IC.
   9.1. 1CV110B closed in auto.
   9.2. 1CV110A closed in auto.
   9.3. 1CV112B open in auto.
   9.4. 1CV112C open in auto.
   9.5. 1CV112D closed in auto.
   9.6. 1CV112E closed in auto.
   9.7. 1CV8104 closed.
10. Verify no flags are on the control boards.
11. This completes the setup for this JPM.

INITIAL CONDITIONS

1. You are the Unit NSO.
2. Unit 1 has tripped, and 1BwEP ES-0.1 is in progress at step 2.

INITIATING CUE

1. Continue with 1BwEP ES-0.1 at step 2.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1	Refer to 1BwEP ES-0.1 step 2 RNO.	• Verify all control rods fully inserted: o Rod bottom lights – ALL LIT • Determine emergency boration is required (2640 gal of acid or 11000 gal of RWST). • Locate and Open 1BwOA PRI-2 to emergency borate.	___	___	___
CUE	After student locates procedure, provide a copy.				
2	Check at least 1 CV pump running.	DETERMINE at least 1 CV pump Running as follows: o RUN light lit for either 1A or 1B CV pump. o Amps indicated on 1A or 1B CV pump. o Flow indicated on 1FI-121.	___	___	___
CUE	As SM, acknowledge need to evaluate EP call.				
3	Establish boration flow from the BAT.	Perform the following to establish Boration flow from the BAT: *(Reactivity Management)* • OPEN 1CV8104, or both 1CV110A and 1CV110B. • START Boric Acid Transfer pump. • CHECK Emergency Boration Flow (1FI-183A) > 30 gpm.	___	___	___
CUE	If asked to investigate in the field, acknowledge the request. If the examinee waits for a report back, then report no visible issues at the boric acid skid.				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE	Alternate path begins when flow verification yields less than 30 GPM due to plugged boric acid filter. Examinee may choose to try other set of open bullets before continuing. Flow will be approximately 15 to 20 GPM using either 1CV8104 or the RMCS flow path through 1CV110A and 1CV110B.				
***4**	**Align alternate boration flow path from the RWST.**	Perform the following to establish Boration flow from the RWST: *(Reactivity Management)* ○ Stop the boric acid transfer pump. • **Open at least ONE RWST to CENT CHG pumps suction valve.** ○ 1CV112D ○ 1CV112E	___	___	___
***5**	**Secure flow path from the VCT.**	• **Close at least one VCT outlet valve.** ○ 1CV112B ○ 1CV112C ○ Maximize letdown flow. ○ Maximize charging flow while maintaining 1FI-121A indication on scale.			
6	Align CV pump discharge flow path.	CHECK CV pump discharge flowpath as follows: • CHECK 1CV8105 and 1CV8106 OPEN. • CHECK 1CV8324A or 1CV8324B OPEN. • CHECK 1CV8146 or 1CV8147 OPEN.	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
7	Verify emergency boration flow to RCS.	VERIFY Charging flow to the RCS on 1FI-121A is at the maximum for normal charging header. *(Reactivity Management)*	___	___	___
8	Equalize Pressurizer and RCS Boron Concentrations.	Equalize RCS and PZR Boron Concentrations performing the following: • CHECK bubble exists in PZR. • ENERGIZE PZR Backup heaters.	___	___	___
CUE	Another NSO will monitor the emergency boration. That completes this JPM				

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____ **Emp. ID#**: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: **Perform an Emergency Boration from the RWST**

JPM Number: **SIM 113** Revision Number: **151**

Task Number and Title: **R-OA-033, Respond to Events Requiring Emergency Boration**

K/A Number and Importance: **APE024AA1.17, 3.9 /3.9**

Suggested Testing Environment: **Simulator**

Alternate Path: ☒ Yes ☐ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s): 1BwOA PRI-2, Rev. 101, Emergency Boration Unit 1.
1BwEP ES-0.1, Rev. 204, Reactor Trip Response Unit 1.

Actual Testing Environment: ☒ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: **10** minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

1. You are the Unit NSO.
2. Unit 1 has tripped, and 1BwEP ES-0.1 is in progress at step 2.

INITIATING CUE

1. Continue with 1BwEP ES-0.1 at step 2.

Job Performance Measure

Align Train B of RHR for Cold Leg Injection

JPM Number: SIM-301

Revision Number: 151

Date: 03 / 11 / 2016

Developed By:	Eric Steinberg Instructor	03/11/2016 Date
Validated By:	Dan Burton SME or Instructor	04/21/2016 Date
Reviewed By:	Kevin Lueshen Operations Representative	04/22/2016 Date
Approved By:	Eric Steinberg Training Department	04/26/2016 Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. If an alternate path is used, the task standard contains criteria for successful completion.

_____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure BwOP RH-11 Rev: 027
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 10. Verify cues both verbal and visual are free of conflict.

_____ 11. Verify performance time is accurate

_____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

Revision 151, updated JPM to current revision of TQ-AA-150-J020 Template. Verified actions for current revision of the procedure.

SRRS: 3D.100; There are no retention requirements for this section

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC-03

NOTE:	It is okay to use a similar IC to the IC listed above, provided the IC actually used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

2. Place simulator in RUN.
3. Place Wide Range Iconics and RCS Heat up limitations on 1PM05J CRTs.
4. Turn on scaler timer and verify audible SR counts.
5. Place BOTH SVAG valve 480V bus feed C/S to CLOSE.
6. Turn over or remove energized SVAG valve placards.
7. Turn over or remove energized RH Loop Suction Valve placards.
8. Place RH letdown on placard on 1A RH TRN.
9. Align 1B RH pump by performing the following at 1PM06J:
   a. **IRF ED056B CLS** to Energize 1RH8702A.
   b. CLOSE 1SI8812B
   c. CLOSE 1RH8716B
   d. Start 0CC01P unit 0 CC pump
   e. OPEN 1CC9412B
   f. OPEN BOTH 1RH8702A and B
   g. CLOSE 1RH607 by lowering demand to 0%.
   h. Place 1RH619 in MANUAL and lower demand to 0%.
   i. Start 1B RH pump.
   j. Place the 1RH611 C/S to OPEN.
10. When the above steps are completed for this and other JPMs to be run concurrently then validate, if not previously validated, the concurrently run JPMs using the JPM Validation Checklist.
11. This completes the setup for this JPM.
12. Snap a temporary IC when all JPMs being run for the day are set up.
13. To re-run this JPM realign the system starting with step 5 or reset to temporary I/C for the days JPM's.
14. **AT CONCLUSION OF JPM PERFORMANCE(S), PERFORM THE FOLLOWING:**
    a. **VERIFY/RESTORE SVAG VALVE PLACARDS.**
    b. **VERIFY/RESTORE RH LOOP SUCTION VALVE PLACARDS.**

SRRS: 3D.100; There are no retention requirements for this section

INITIAL CONDITIONS

1. You are the extra NSO.
2. A unit startup/heatup is in progress per 1BwGP 100-1.
3. 1B RH is being removed from shutdown cooling and realigned for injection.
4. Both pressurizer PORVs are operable for ARM low temp conditions.

INITIATING CUE

1. The Unit Supervisor directs you to secure the 1B RH pump and align the 1B RH pump for cold leg injection in accordance with BwOP RH-11, SECURING THE RH SYSTEM FROM SHUTDOWN COOLING.
2. BwOP RH-11 is complete through step 8.
3. All prerequisites, precautions and limitations and actions are met.
4. Another NSO will monitor CC pressure and operate CC pumps as required.

Provide examinee marked up BwOP RH-11.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
***1.**	**Secure 1B RH Pump.** (steps F.9 – F.10)	Perform the following at 1PM06J: • **Place 1B RH Pump C/S to TRIP.** • **Verify 1RH611, RH Pump 1B Miniflow Valve, C/S in AUTO.**	___	___	___

***2**	**Align 1B RH Pump for Cold Leg Injection.** (steps F.11 – F.12)	Perform the following at 1PM06J: ○ Determine 1RH8702A, RC Loop 1C to RH Pump 1B Suction Isol Valve is ENERGIZED. ○ Place 1B RH Pump C/S to PULL OUT. • **CLOSE 1RH8702A, RC Loop 1C to RH Pump 1B Suction Isol Valve.** • **CLOSE 1RH8702B, RC Loop 1C to RH Pump 1B Suction Isol Valve.** ○ Verify/CLOSE 1SI2015B ○ Place 1FK-619, RH Hx 1B Bypass Flow Controller in MANUAL and lower demand to 0%. (should already be in manual at 0% from step F.7.b & c) • **Throttle open 1RH607, RH Hx 1B Flow Control Valve, by raising POT demand to 100%**. ○ Verify 1SI8840, RH to Hot Leg 1A & 1C isolation valve, CLOSED. ○ Verify 1SI8809B, RH to Cold Legs 1B & 1C isolation valve, OPEN. • **OPEN 1RH8716B, RH Hx 1B Discharge Crosstie Valve.** ○ Verify 1SI8804B, 1B RH Hx to CV Pump Suction Isolation Valve, CLOSED.	___	___	___
CUE	If asked as the equipment operator in the field to report shutdown, report good shutdown, no reverse rotation. When asked to verify 1SI2015B closed, report 1SI2015B is closed.				
CUE	If examinee requests US to determine if LCO 3.4.12 must be entered when closing 1RH8702A or B, provide the following cue: LCO 3.4.12 entry is NOT required.				

***3**	**Switch 1B RH Pump Suction to the RWST:** (steps F.13-14)	Perform the following at 1PM06J: Prevent steam binding of the 1B RH pump suction by performing the following: ○ Determine 1B RH Pump was stopped and at least ONE Hot Leg Suction valves was closed when RCS hot leg temperature was < 200°F. • **OPEN 1SI8812B, RH Pump 1B Suction from RWST Valve.**			
***4**	**Complete 1B RH Pump alignment** (steps F.15 – 20)	Perform the following: ○ Dispatch an equipment operator to LOCK CLOSED 1RH8734B, RH Train 1B to CV Letdown Hx Isolation Valve. • **CLOSE 1CC9412B, CC to RH Hx 1B Isolation Valve.** ○ Stop CC Pump if desired. ○ Dispatch an equipment operator to verify 1RH8735, RH Recirc to RWST Isolation Valve, is LOCKED CLOSED. • **Place 1B RH Pump C/S in Normal After Trip at 1PM06J.** ○ Verify 1SI8811B, Containment Sump 1B Isolation Valve, CLOSED light is LIT at 1PM06J.	___	___	___
CUE	Acknowledge request for another NSO to stop a CC pump as desired. (pump will not be secured at this time.) When asked to close 1RH8734B, as equipment operator, report 1RH8734B is locked closed. When asked to lock closed 1RH8735, as equipment operator, report 1RH8735 is locked closed, as found.				
CUE	Inform the examinee another NSO will complete RH piping vent and the remainder of BwOP RH-11. That completes this JPM.				

JPM Stop Time: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JPM SUMMARY

Operator's Name: _____ **Emp. ID#**: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: **Align Train B of RHR for Cold Leg Injection**

JPM Number: SIM-301 Revision Number: 151

Task Number and Title: R-RH-005, Shutdown the RH system and realign for standby operations.

K/A Number and Importance: 002A1.03 3.7/3.8

Suggested Testing Environment: Simulator

Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s): BwOP RH-11, rev. 27, Securing the RH system from Shutdown Cooling.

Actual Testing Environment: ☒ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: 13 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

1. You are the extra NSO.
2. A unit startup/heatup is in progress per 1BwGP 100-1.
3. 1B RH is being removed from shutdown cooling and realigned for injection.
4. Both pressurizer PORVs are operable for ARM low temp conditions.

INITIATING CUE

1. The Unit Supervisor directs you to secure the 1B RH pump and align the 1B RH pump for cold leg injection in accordance with BwOP RH-11, SECURING THE RH SYSTEM FROM SHUTDOWN COOLING.
2. BwOP RH-11 is complete through step 8.
3. All prerequisites, precautions and limitations and actions are met.
4. Another NSO will monitor CC pressure and operate CC pumps as required.

Job Performance Measure

Raise 1C SI Accumulator Level using 1A SI Pump (NOP)

JPM Number: SIM-203

Revision Number: 151

Date: 03 / 11 / 2016

Developed By:	Eric Steinberg Instructor	3/11/2016 Date
Validated By:	Dan Burton SME or Instructor	4/21/2016 Date
Reviewed By:	Kevin Lueshen Operations Representative	4/22/2016 Date
Approved By:	Eric Steinberg Training Department	4/26/2016 Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

8. If an alternate path is used, the task standard contains criteria for successful completion.

_____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure BwAR 1-5-C1 Rev: 14
Procedure BwOP SI-5 Rev: 30
Procedure TS 3.5.1 Rev: N/A

_____ 10. Verify cues both verbal and visual are free of conflict.

_____ 11. Verify performance time is accurate.

_____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

Revision 151, Revision includes current revisions of referenced procedures and current revision of TQ-AA-150-J020 JPM Template.

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC-21 or any IC with RCS pressure > 1000 psig.

NOTE: It is okay to use a similar IC to the IC listed above, provided the IC actually used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

2. Insert and monitor the following monitored parameters:

- **SIMACC[3]** mass of water in 1C SI Accumulator.
- **SIMN2ACC[3]** nitrogen in 1C SI Accumulator.

3. Either:

o Modify the level in the 1C SI Accumulator as follows:

- Lower level of 1C SI Accumulator per BwOP SI-6 to just below the tech spec limit of 31%. Note the mass.

- or -

o Modify the level in the 1C SI Accumulator as follows:

- Modify **SIMACC[3]** to **57,125** to lower level to 30%.

4. **VERIFY** level reads < 31% on MCB meters (adjust level as necessary to indicate < 31%).
5. Adjust pressure as necessary to be within the tech spec limit, above the low pressure alarm setpoint, but not so high as to cause the high pressure alarm to come in when level is subsequently raised to >54%. This can be accomplished if **SIMN2ACC[3]** is modified to **1265**.
6. Reset PPC, Clear Recorders, (Ensure PPC is NOT on the 1A SI pump screen).
7. Ensure switches operated are placed in AUTO.
8. If called as an EO for SI pump operations, report (as requested):

- Pre-start checks ready.
- Pump running satisfactorily.
- Pump S/D.

9. Following completion of JPM vent off the fill header by opening 1SI8964 and closing when pump discharge pressure is <50#.
10. When the above steps are completed for this and other JPMs to be run concurrently then validate, if not previously validated, the concurrently run JPMs using the JPM Validation Checklist.
11. This completes the setup for this JPM.
12. To repeat this JPM, either snap an IC when all concurrent JPMs are setup OR reperform steps 3-11.

INITIAL CONDITIONS

1. You are the Unit 1 Extra NSO.
2. Unit 1 is stable in the current mode.
3. All systems and controls are normal for the present conditions.
4. **This is a time critical JPM.**

INITIATING CUE

1. Annunciator 1-5-C1, ACCUM 1C LEVEL HIGH/LOW, has been lit for 40 minutes.
2. A valve misalignment on the 1C SI Accumulator has resulted in a low level. The valve misalignment has been corrected and an investigation is under way for the cause.
3. The 1C SI Accumulator has been declared inoperable, and the LCOAR was entered 30 minutes ago.
4. The US has directed you to raise the 1C accumulator level per BwOP SI-5 to > 38% but within the Technical Specification limit by using the 1A SI pump. EOs have been briefed and are standing by as needed.
5. The RWST heating pump and refueling water purification pump are not running.
6. Spent Fuel pit demineralizer effluents are NOT aligned to the RWST.
7. RWST boron is 2315 ppm and has not been diluted since the last sample.

Provide examinee a copy of BwAR 1-5-C1 and BwOP SI-5 and inform them; all prerequisites, precautions, limitations and actions are met.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE	1SI8806 and 1SI8813 are SVAG valves and are maintained deenergized; 1SI8814 is deenergized; their position may be verified by the Group 1 or 4 Readiness Lights, SVAG Valve Status Lights or locally.				
1	Check RWST status.	Check the following NOT discharging to the RWST: • Refueling Water Purification Pump • RST Heating Pump • RCDT Pump 1A/B • Spent Fuel Pit Demineralizer • CS Pump 1A/B • RWST makeup from the boric acid blender	___	___	___
CUE	Examinee can check status per the initial cue or on the main control boards.				
2	Verify valve alignment.	At 1PM06J, Verify/OPEN: • 1SI8806 (SVAG) • 1SI8923A • 1SI8814 (deenergized) • 1SI8813 (SVAG)	___	___	___
CUE	If asked to verify these valves locally, they are all OPEN.				
***3**	**Align 1A SI Pump to Accumulator fill header.**	**At 1PM06J, OPEN:** *(Configuration Control)* • **1SI8888**	___	___	___
4	Verify SI to Radwaste flowpath isolated.	At 1PM11J, Verify/CLOSE: • 1SI8964	___	___	___
***5**	**Align Accumulator for fill.**	**At 1PM06J, OPEN:** *(Configuration Control)* • **1SI8871**	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
6	Verify valve alignment.	At 1PM06J, Verify/OPEN: • 1SI8821A • 1SI8821B	___	___	___
NOTE	Student may elect to have an EO do a pre-start check of 1A SI pump prior to starting.				
CUE	If asked, EO reports that the 1A SI Pump is ready for a start.				
***7**	**Start the 1A SI Pump.**	• **Take C/S to Start for the 1A SI Pump.** *(Procedural Adherence)* ○ Check 1A SI Pump Run Light LIT. ○ Check pump amps.	___	___	___
***8**	**Fill the 1C SI Accumulator.**	**At 1PM06J**: • **OPEN 1SI8878C**. *(Configuration Control)* ○ Monitor Accumulator Level. • **Critical Time < 30 min from Start time to time level > 31%.** *(Regulatory Compliance)*	___	___	___
NOTE	Time Accumulator level > 31%: _____ This takes approximately 11 minutes from the start of the JPM.				
***9**	**Stop filling 1C SI Accumulator.**	**At 1PM06J, CLOSE:** • **1SI8878C when Accumulator Level reaches >38% but before exceeding 63%.** *(Regulatory Compliance)*	___	___	___
NOTE	Per the initiating cue, direction was given to restore level to >38% but < 63%.				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
10	Stop 1A SI pump.	• Take C/S to Trip for the 1A SI Pump. • Check 1A SI Pump Stop Light LIT.	___	___	___
11	Depressurize the fill header to less than 50 psig.	Depressurize the fill header to less than 50 psig by: • Open 1SI8964. • When SI pump discharge pressure is less than 50 psig, CLOSE 1SI8964.	___	___	___
12	Verify 1A SI pump discharge to cold leg line up.	Verify/OPEN: • 1SI8821A	___	___	___
13	Isolate SI Pump from Accumulator.	At 1PM06J, close Fill/Test line Isolation valves: • 1SI8871 • 1SI8888	___	___	___
14	Inform US that it may be necessary to initiate 1BwOS SI-1A, and to contact chemistry for Accumulator samples, and exit LCOAR for level.	Inform US of the following potential requirements: • 1BwOS SI-1a • Chemistry to sample the Accumulators for boron. • Exit LCOAR from Accumulator level.	___	___	___
CUE	US will evaluate need to perform 1BwOS SI-1a, will inform chemistry, and exit LCOAR. This completes the JPM.				

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____ **Emp. ID#**: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: **Raise 1C SI Accumulator Level using 1A SI Pump (NOP)**

JPM Number: **SIM-203** Revision Number: **151**

Task Number and Title: **R-SI-001, Fill the SI System accumulators**

K/A Number and Importance: **006000A1.13, 3.5/3.7**

Suggested Testing Environment: **Simulator**

Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☒ Yes ☐ No

Reference(s): BwAR 1-5-C1, Rev. 14, ACCUM 1C LEVEL HIGH/LOW
BwOP SI-5, Rev. 30, Raising SI Accumulator Level with SI Pumps
TS 3.5.1

Actual Testing Environment: ☒ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: **17** minutes **Actual Time Used:** _____ minutes

Critical Time: **30** minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

1. You are the Unit 1 Extra NSO.
2. Unit 1 is stable in the current mode.
3. All systems and controls are normal for the present conditions.
4. **This is a time critical JPM**.

INITIATING CUE

1. Annunciator 1-5-C1, ACCUM 1C LEVEL HIGH/LOW, has been lit for 40 minutes.
2. A valve misalignment on the 1C SI Accumulator has resulted in a low level. The valve misalignment has been corrected and an investigation is under way for the cause.
3. The 1C SI Accumulator has been declared inoperable, and the LCOAR was entered 30 minutes ago.
4. The US has directed you to raise the 1C accumulator level per BwOP SI-5 to > 38% but within the Technical Specification limit by using the 1A SI pump. EOs have been briefed and are standing by as needed.
5. The RWST heating pump and refueling water purification pump are not running.
6. Spent Fuel pit demineralizer effluents are NOT aligned to the RWST.
7. RWST boron is 2315 ppm and has not been diluted since the last sample.

Job Performance Measure

Swap Component Cooling Pumps

JPM Number: SIM-800

Revision Number: 151

Date: 03/ 15 / 2016

Developed By:	Eric Steinberg Instructor	03/15/2016 Date
Validated By:	Dan Burton SME or Instructor	04/22/2016 Date
Reviewed By:	Kevin Lueshen Operations Representative	04/22/2016 Date
Approved By:	Eric Steinberg Training Department	04/26/2016 Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. If an alternate path is used, the task standard contains criteria for successful completion.

_____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure BwOP CC-15 Rev: 20

_____ 10. Verify cues both verbal and visual are free of conflict.

_____ 11. Verify performance time is accurate

_____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

Revision 151, Updated to TQ-AA-150-J020 JPM template. JPM flow path updated to match LORT JPM N-118 for setup.

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC-21 or any Mode 3 or higher IC.

NOTE:	It is okay to use a similar IC to the IC listed above, provided the IC actually used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

2. Verify the following:
   - ONLY the 1A CC pump is running.
   - PPC reset.
   - SER printer clear and SER paper removed.
3. **IMF CC17C 94** to cause higher than normal amps on the 1B CC pump.
4. When the above steps are completed for this and other JPMs to be run concurrently, then validate if not previously validated, then concurrently run JPMs using the JPM Validation Checklist.
5. This completes the setup for this JPM.
6. To Reset JPM either:
   - Start 1A CC pump.
   - Verify 1B CC pump in NAT.
   - Verify 0 CC pump (bus 141) in NAT.
   - Reset PPC and PI.
   - Reset recorders.
   - Clear SER and remove SER paper.
   - Verify **IMF CC17C 94**

     or
   - Snap an IC for all JPM's being run for the day.
   - Reset IC

INITIAL CONDITIONS

1. You are the Unit 1 NSO.
2. Unit 1 is stable in its current mode.
3. System Engineering has reported that the 1A CC Pump has elevated vibrations that are trending higher quickly.
4. System Engineering has recommended that the 1A CC Pump be secured expeditiously to prevent damage.

INITIATING CUE

1. The Unit Supervisor has directed you to start the 1B CC Pump and secure the 1A CC Pump per BwOP CC-15 “Switching Operating and Standby Component Cooling System Pumps.”
2. All CC Pumps have been vented and are aligned for operation per the appropriate procedure.

Provide examinee with a copy of BwOP CC-15 and inform them all prerequisites, precautions, limitations and actions are met.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator’s Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the “Comment Number” column on the following pages. Then annotate that comment in the “Comments” section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site’s appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1	Verify/Vent the pump casing of the CC Pump to be started.	Determines that the 1B CC pump has been vented per the initiating cue.	___	___	___
***2**	**Start 1CC01PB - Component Cooling Pump.**	Starts the 1B CC Pump. *(Technical Human Performance)* • Starts the 1B CC Pump.	___	___	___
NOTE	**JPM steps 3-5 may be performed in any order.**				
***3**	**Stop 1CC01PB Component Cooling Pump.**	Determines that motor current does not drop to less than 56 amps within 5 seconds. *(Technical Human Performance)* • Trips the 1B CC Pump.	___	___	___
CUE	EO notifies the MCR that the vibrations on the 1A CC Pump have risen noticeably during the swap, and the vibrations are getting worse. If asked the EO reports the Unit common CC pump is ready for start.				
CUE	The US acknowledges high vibrations on 1A CC Pump and high amps on the 1B CC Pump. The US will agree with a recommendation to start the U-0 CC Pump.				
***4**	**Start the Unit 0 Component Cooling Pump.**	Starts the 0 CC Pump. *(Technical Human Performance)* • Starts the "0" CC Pump.	___	___	___
***5**	**Stop the 1A CC Pump.**	Stops the 1A CC Pump. (*Procedural Adherence*)	___	___	___
6	Verify/Open 1CC685, CC from RCP Thermal Barrier HX Isol Vlv.	Determines 1CC685 is open.	___	___	___
7	Verify/Clear any RCP CC annunciators/alarms.	Determines RCP CC annunciators are clear.	___	___	___
8	Verify/Clear "CNMT PEN CLG FLOW HIGH/LOW" alarm.	Determines "CNMT PEN CLG FLOW HIGH/LOW" alarm is clear.	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE	Technical Specification LCO entry may be evaluated for SRO examinees by providing the SRO ONLY cue below.				
9	Review system lineup and 1A CC Pump control switch position for CC System Tech Spec compliance.	Notifies Unit Supervisor to review Tech Specs.	___	___	___
NOTE	The 1A CC Pump control switch must be in PULL OUT to enable the 0 CC Pump auto-start.				
CUE	The US acknowledges the request to review Technical Specifications. SRO ONLY: The US directs the examinee to independently verify LCO conditions.				
NOTE	The 1A CC Pump control switch must be in PULL OUT to enable the 0 CC Pump auto-start per limitation E.4 of BwOP CC-15. Technical Specification LCO 3.7.7 Condition B is applicable for a single CC pump being inoperable. If 1A CC pump is not in PTL, LCO 3.0.3 will be in effect for no CC pumps being available to auto start due 1A CC pumpbeing inoperable for the vibration issue and 1B inoperable for the high motor amps issue.				
CUE	That completes this JPM				

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____ **Emp. ID#**: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: **Swap Component Cooling Pumps**
JPM Number: **SIM-800** Revision Number: **151**
Task Number and Title: **R-CC-002, Operate the Component Cooling System**
Task Standard: **Start the 1B CC pump, stop the 1B CC pump due to high amps, start the U-0 CC pump, then secure the 1A CC pump.**
K/A Number and Importance: **008000A4.01, 3.3/3.1**
Suggested Testing Environment: **Simulator**
Alternate Path: ☒ Yes ☐ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No
Reference(s): BwOP CC-15, Rev. 20, Switching Operating and Standby CC System Pumps

Actual Testing Environment: ☒ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: **15** minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:
Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

1. You are the Unit 1 NSO.
2. Unit 1 is stable in its current mode.
3. System Engineering has reported that the 1A CC Pump has elevated vibrations that are trending higher quickly.
4. System Engineering has recommended that the 1A CC Pump be secured expeditiously to prevent damage.

INITIATING CUE

1. The Unit Supervisor has directed you to start the 1B CC Pump and secure the 1A CC Pump per BwOP CC-15 “Switching Operating and Standby Component Cooling System Pumps.”
2. All CC Pumps have been vented and are aligned for operation per the appropriate procedure.

Job Performance Measure

Perform RV/IV Cycling Surveillance

JPM Number: SIM-409S

Revision Number: 151

Date: 03 / 16 / 2016

Developed By:	Eric Steinberg Instructor	03/16/2016 Date
Validated By:	Dan Burton SME or Instructor	04/22/2016 Date
Reviewed By:	Kevin Lueshen Operations Representative	04/22/2016 Date
Approved By:	Eric Steinberg Training Department	04/26/2016 Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. If an alternate path is used, the task standard contains criteria for successful completion.

_____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure 1BwOS TRM 3.3.g.3 Rev: 18
Procedure BwAR 1-18-C5 Rev: 7

_____ 10. Verify cues both verbal and visual are free of conflict.

_____ 11. Verify performance time is accurate

_____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

Revision 151, Revision includes current revisions of referenced procedures and current revision of TQ-AA-150-J020 JPM Template.

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to any IC at power <99.75% power.
2. Run CAE SIM-409S and verify the following:
   - **TRGSET 19 "TCVRV(1)==0"**
   - **trg 19 "SET MSRMASSTNK(5)=975”**
3. When requested as EO to reset 1HD06J panel relay insert:
   - **IRF FW133 RESET**
4. When the above steps are completed for this and other JPMs to be run concurrently, then validate if not previously validated, then concurrently run JPMs using the JPM Validation Checklist.
5. This completes the setup for this JPM.
6. IF repeating JPM then:
   - **IRF FW133 NORM.**
   - Reset Trigger 19.
   - Clear SER and remove SER printer paper.
   - Remove flags.
   - Verify BwAR 1-18-C5 clean.
   - Reset PI and/or PPC.

JPM SUMMARY

Operator's Name: _____ **Emp. ID#**: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: **Perform RV/IV Cycling Surveillance**

JPM Number: **SIM-409S** Revision Number: **151**

Task Number and Title: **R-EH-011, Perform a turbine throttle/governor valve semi-annual surveillance, reheat and intercept valve monthly surveillance**

K/A Number and Importance: **045000A4.01, 3.1/2.9**

Suggested Testing Environment: **Simulator**

Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s): 1BwOS TRM 3.3.g.3, Rev 18, Turbine Overspeed Protection Systems Valve Stem Freedom Checks
BwAR 1-18-C5, Rev. 7, FIRST STAGE RDT LEVEL HI-2

Actual Testing Environment: ☒ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: **10** minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

1. You are the Assist NSO.
2. Both Units are at full power.
3. Following maintenance on the #1 left side reheat stop valve, a PMT is scheduled for the #1 left side reheat stop valve.
4. EOs have been briefed and are standing by to assist in the field at the #1 left side reheat stop valve and 1HD06J.

INITIATING CUE

1. The U-1 Unit Supervisor has directed you to perform 1BwOS TRM 3.3.g.3, UNIT ONE TURBINE OVERSPEED PROTECTION SYSTEMS VALVE STEM FREEDOM CHECKS (RV-IV CYCLING), for the #1 left side reheat stop valve.
2. The test can be performed at the current power level.
3. Another NSO will monitor the remainder of the Main Control Board panels.
4. Inform the Unit 1 Unit Supervisor when you have completed the PMT.

Provide examinee PMT coversheet and marked up procedure. All prerequisites, precautions, limitations and actions are met.

Fill in the JPM Start Time when the examinee acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1	Obtain and record EH parameters.	• Obtain and record EH fluid median pressure by the following method: o From Ovation OWS screen #5515. o From Process Book. • Obtain and record EH system flow.	___	___	___
CUE	EO reports EH system flow locally is 6.0 gpm.				
2	Verify Left Side #1 Reheat Stop Valve and Intercept Valve indicate open.	Perform the following at Ovation OWS: • "RSV L1 OPEN" indicator is illuminated. • "IV L1 OPEN" indicator is illuminated. • "RSV L1 CLOSED" indicator is NOT illuminated. • "IV L1 CLOSED" indicator is NOT illuminated.	___	___	___
CUE	All valves indicate as expected.				
***3**	**Perform Left Side #1 Reheat Stop Valve and Intercept Valve stroke test.**	Perform the following at Ovation OWS graphic 5501: *(Procedural Adherence)* • **SELECT VALVE TEST.** • **SELECT pushbutton associated with the ZS-MS5001A (RSV L1) / ZS-MS5003A (IV L1).** • **SELECT EXECUTE on the popup.**	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
4	Verify proper indication of Left Side #1 Reheat Stop Valve and Intercept Valve stroked closed.	Verify proper indication of Left Side #1 Reheat Stop Valve and Intercept Valve stroked closed • "RSV L1 CLOSED" indicator is illuminated. • "IV L1 CLOSED" indicator is illuminated. • "RSV L1 OPEN" indicator is NOT illuminated. • "IV L1 OPEN" indicator is NOT illuminated.	___	___	___
CUE	EO reports all valves stroke smoothly/indicate as expected via local observation.				
5	Verify proper indication of Left Side #1 Reheat Stop Valve and Intercept Valve stroked back open.	Perform the following at Ovation OWS: • "RSV L1 OPEN" indicator is illuminated • "IV L1 OPEN" indicator is illuminated. • "RSV L1 CLOSED" indicator is NOT illuminated. • "IV L1 CLOSED" indicator is NOT illuminated. • Contact EO for field report of valve stroke.	___	___	___
CUE	If contacted as EO, report left side #1 Reheat Stop Valve and Intercept Valve stroked full closed and re-opened smoothly.				
CUE	If contacted as EO, report 1A MSR 1st Stage Reheater Drain Tank Hi-2 light is LIT at 1HD06J.				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
6	Acknowledge associated alarms.	Acknowledge the following alarms associated with RV/ IV testing: • 1-18-A7 • 1-18-A5 • 1-18-B5 • 1-18-C5 ○ Review the associated BwARs. ○ Announce alarms to US.	___	___	___
CUE	As Unit Supervisor, acknowledge reports of annunciators due to Reheat Stop Valve and Intercept Valve testing as they occur.				
7	Verify/Open all Extraction Steam supply valves.	Verifies position of all Extraction Steam supply valves: • 1ES056A. • 1ES056B. • 1ES056C. • 1ES056D. • Observes that 1ES056A has auto closed.	___	___	___
CUE	If contacted as US that 1ES056A is closed, acknowledge report.				
***8**	**Re-opens 1ES056A.**	Re-opens 1ES056A by performing the following: *(Configuration Control)* ○ Dispatch EO to reset 1st stage RDT HI-2 at 1HD06J. • **At 1PM02J, place 1ES056A C/S to OPEN**.	___	___	___
NOTE	Additional guidance for re-opening 1ES056A is located in BwAR 1-18-C5.				
CUE	If contacted as EO to reset HI-2 relay, report 1st stage Reheater Drain Tank HI-2 at 1HD06J has been reset after booth operator clears the alarm.				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
9	Exit RV/IV testing pop up screen.	SELECT EXIT on the popup labeled IV & RSV LH1.	___	___	___
CUE	This completes the JPM.				

JPM Stop Time: _____

INITIAL CONDITIONS

1. You are the Assist NSO.
2. Both Units are at full power.
3. Following maintenance on the #1 left side reheat stop valve, a PMT is scheduled for the #1 left side reheat stop valve.
4. EOs have been briefed and are standing by to assist in the field at the #1 left side reheat stop valve and 1HD06J.

INITIATING CUE

1. The U-1 Unit Supervisor has directed you to perform 1BwOS TRM 3.3.g.3, UNIT ONE TURBINE OVERSPEED PROTECTION SYSTEMS VALVE STEM FREEDOM CHECKS (RV-IV CYCLING), for the #1 left side reheat stop valve.
2. The test can be performed at the current power level.
3. Another NSO will monitor the remainder of the Main Control Board panels.
4. Inform the Unit 1 Unit Supervisor when you have completed the PMT.

Job Performance Measure

Start an RCP

JPM Number: SIM-409P

Revision Number: 151

Date: 03 / 14 / 2016

Developed By:	Eric Steinberg Instructor	03/14/16 Date
Validated By:	Dan Burton SME or Instructor	04/22/16 Date
Reviewed By:	Kevin Lueshen Operations Representative	04/22/16 Date
Approved By:	Eric Steinberg Training Department	04/26/16 Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. If an alternate path is used, the task standard contains criteria for successful completion.

_____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure BwOP RC-1 Rev: 31
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 10. Verify cues both verbal and visual are free of conflict.

_____ 11. Verify performance time is accurate

_____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

Revision 151, This is a new JPM written for ILT 15-1 NRC exam.

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC 03

NOTE:	It is okay to use a similar IC to the IC listed above, provided the IC actually used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

2. Stabilize pressurizer level and pressure.
3. Ensure 1B RCP #1 seal leak off flow is the lowest for the non-running RCPs.
   - **IOR ZAO1FR0160P1 0.193** to raise 1A RCP seal leak off flow.
4. When the above steps are completed for this and other JPMs to be run concurrently then validate, if not previously validated, the concurrently run JPMs using the JPM Validation Checklist.
5. This completes the setup for this JPM.
6. To repeat this JPM either
   - Snap an IC for the day once all JPM's are set up and reset.
     or
   - Secure the 1B RCP.
   - Reset the PPC.
   - Clear chart recorders to remove evidence of previous student actions.

INITIAL CONDITIONS

1) Unit 1 is in Mode 5 preparing for a plant startup.
2) The 1C & 1D RCPs are running and the 1A RH train is running in shutdown cooling.
3) The mode 5 to mode 4 check list is complete.

INITIATING CUE

1) You are an extra NSO
2) The SM has directed you to start the 1B RCP per BwOP RC-1, to prepare for heatup of the unit 1 RCS.
3) The dust covers are removed, the loose parts system is in operation and the electrical group has verified the trip coils for 1B RCP are operable.
4) Equipment operators have been briefed and are standing by the 1B RCP in containment.

Provide the examinee with BwOP RC-1 and inform them the prerequisites, precautions, limitations and actions are met.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1	Verify initial conditions for 1B RCP.	Verify the following: • Dust covers removed. • Loose parts monitoring system operating. • 1B RCP trip coils operable. • Trend 1B RCP parameters on PPC screen. • Verify Steam generator to RCS differential temperature is <50ºF ○ verifying reverse flow in non-operating loops. ○ contact pyrometer readings in containment. • Verify the following VCT parameters at 1PM05J: ○ Pressure ≥ 15 psig ○ Temperature <135 ºF ○ Level between 37%-73% • Verify the following alarms are clear: ○ 1-9-A2 ○ 1-9-B2 ○ 1-9-C2 ○ 1-7-E3 ○ 1-7-B4 ○ 1-7-B5 ○ 1-7-E5 ○ 1-13-B6 ○ 1-13-B7 • Verify/Open 1CV8100 and 1CV8112. • OPEN 1CV8141B.	___	___	___
CUE	If asked, contact pyrometer readings of 1A and 1B SG are 186° F.				
CUE	Dust covers removed, loose parts monitoring system operating and trip coils operable per the initiating cue.				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*2	**Establish 1B RCP starting conditions.**	• **Start the 1B RCP oil lift pump:** ○ Verify annunciators clear: ○ 1-7-A3 ○ 1-7-B6 ○ 1-7-B7 ○ 1-7-B3 ○ Verify the oil lift pump has run for at least two minutes (Pressure light on).	___	___	___
CUE	If asked, cue the examinee that 2 minutes have elapsed.				
3	Verify conditions to start 1B RCP.	• Verify #1 seal DP >275 psid on 1PI-152A. • Verify/adjust seal injection flows. • Verify seal leakoff flow within the normal operating range of attachment A. • Make a plant announcement that 1B RCP is going to be started.	___	___	___
CUE	Cue the examinee that the Unit Supervisor does not desire to adjust seal injection flows. If called as the EO, report that 1B RCP is ready for a start and you are standing by.				
NOTE:	The examinee will be looking for a prompt report of the status of 1B RCP rotation. (**rotation required within 2 seconds**) This should be requested with the above checks but should be reported after the start either way.				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
***4**	**Start 1B RCP.**	○ No Spray valve associated with 1B RCP. ○ A bubble exists in the pressurizer. No adjustments required to 1CV131. • **Start 1B RCP**. ○ Verify current drops to less than 700 amps within 35 seconds.	___	___	___
CUE	Cue Report as the field operator that 1B RCP is rotating within 2 seconds. After a 30 seconds report a good start of the 1B RCP.				
5	Verify 1B RCP continued operation.	• Verify alarm 1-13-B3 clear. • Verify #1 Seal leakoff flow is within normal operating range of attachment A. • Stop the oil lift pump for 1B RCP after one minute. • Monitor RCP bearing temperatures.	___	___	___
CUE	Another NSO has been assigned to complete the checks and continue monitoring the 1B RCP. That completes this JPM.				

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____ **Emp. ID#**: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Start an RCP
JPM Number: SIM-409P Revision Number: 151
Task Number and Title: R-RC-006 Starting an RCP
K/A Number and Importance: 003000A4.02 2.9/2.9
Suggested Testing Environment: Simulator
Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No
Reference(s): BwOP RC-1, rev 31, Startup of a Reactor Coolant Pump

Actual Testing Environment: ☒ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: 15 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:
Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

1) Unit 1 is in Mode 5 preparing for a plant startup.
2) The 1C & 1D RCPs are running and the 1A RH train is running in shutdown cooling.
3) The mode 5 to mode 4 check list is complete.

INITIATING CUE

1) You are an extra NSO
2) The SM has directed you to start the 1B RCP per BwOP RC-1, to prepare for heatup of the unit 1 RCS.
3) The dust covers are removed, the loose parts system is in operation and the electrical group has verified the trip coils for 1B RCP are operable.
4) Equipment operators have been briefed and are standing by the 1B RCP in containment.

Job Performance Measure

Synchronize 1B EDG to bus 142 and
Respond to Voltage Regulator Malfunction.

JPM Number: SIM-612

Revision Number: 151

Date: 03 / 25 / 2016

Developed By:	Eric Steinberg Instructor	03/25/2016 Date
Validated By:	Dan Burton SME or Instructor	04/22/2016 Date
Reviewed By:	Kevin Lueshen Operations Representative	04/22/2016 Date
Approved By:	Eric Steinberg Training Department	04/26/2016 Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. If an alternate path is used, the task standard contains criteria for successful completion.

_____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure 1BwOSR 3.8.1.2-2 Rev: 39
Procedure BwOP DG-11T1 Rev: 8

_____ 10. Verify cues both verbal and visual are free of conflict.

_____ 11. Verify performance time is accurate

_____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

Revision 151, Modified from JPM SIM-609, updated TQ-AA-150-J020 and current procedure revisions.

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC-21

NOTE:	It is okay to use a similar IC to the IC listed above, provided the IC actually used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

2. Complete items on Simulator Ready for Training Checklist.
3. Place simulator in RUN.
4. Place 1B DG Auto Reclose Circuit Arm switch to SURV TEST.
5. Start 1B DG.
6. Insert **IRF EG12** to reset 1B DG TROUBLE/FAIL TO START annunciator.
7. Adjust 1B DG (incoming) voltage lower than running voltage.
8. Adjust 1B DG frequency to 60.2 Hz.
9. Place synch switch handle in ACB 1424.
10. Run **caep SIM-612 rev151** from disk and verify the following actuate:
    - TRGSET 1 "ZLO1HSDG028(3)==1"
    - TRG 1 "IOR ZDI1HSDG021 RAISE"
11. When the above steps are completed for this and other JPMs to be run concurrently then validate, if not previously validated, the concurrently run JPMs using the JPM Validation Checklist.
12. This completes the setup for this JPM.
13. If running the JPM repetitively, perform the following:
14. Delete Override **DOR ZDI1HSDG021.**
15. Reset Trigger 1.
16. Adjust DG voltage lower than running voltage.
17. Adjust DG frequency to 60.2 Hz.
18. Place synch switch handle in ACB 1424.

INITIAL CONDITIONS

1. You are an extra NSO.
2. All conditions are normal for current mode on Unit 1.
3. The 1B Diesel Generator was SLOW started from the control room per 1BwOSR 3.8.1.2-2, UNIT ONE 1B DIESEL GENERATOR OPERABILITY SURVEILLANCE, step F.2, and has been running unloaded for approximately fifteen minutes.
4. 1BwOSR 3.8.1.2-2, is in progress, and complete up to step F.5.0.

INITIATING CUE

1. Using the partially completed procedure provided, you have been directed by the Unit 1 Unit Supervisor to complete Section F.5.0 of 1BwOSR 3.8.1.2-2.
2. Inform the US when you have completed section F.5.0 of 1BwOSR 3.8.1.2-2.

Provide the student marked up copies of 1BwOSR 3.8.1.2-2 and BwOP DG-11T1.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number

1	Prepare the 1B Diesel Generator for parallel.	Perform the following at 1PM01J:
		• VERIFY DG Frequency ~60Hz and Voltage ~4160V:
		  • Adjust DG frequency to 60 Hz using Gov. Adj. Control.
		  • Adjust DG voltage to 4160V using Volt Adj. Control.
		• VERIFY approximately the same voltage exists across each phase:
		  ○ Check voltage on phases A-B, B-C, and C-A using the DIESEL GEN. VOLTMETER SELECT Switch.
			___	___	___

CUE	If asked, this is not being performed in conjunction with the 24-hour load run of surveillance 1BwVSR 3.8.1.14-2.				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*2	**Parallel 1B Diesel Generator to bus 142.**	At the 1PM01J perform the following: • Turn Sync Selector Switch to ON for ACB 1423. • Adjust Incoming (DG) voltage (1EI-AP107B) slightly higher (0-4.0 volts) than running voltage (1EI-AP107A) by going to RAISE on the DG voltage adjust control switch. • Adjust Generator Speed such that the synchroscope (1SI-AP107) is rotating SLOWLY in the FAST direction by going to LOWER on the DG governor adjust control switch. • **When the synchroscope (1SI-AP107) is <u>slightly</u> before the 12 o'clock position, CLOSE ACB 1423 by placing the control switch in CLOSE.** ○ Verify synchroscope (1SI-AP107) "Locks in" at 12 o'clock position. ○ Load 1B DG to 500 KW by going to raise on the DG governor adjust control switch.	___	___	___
NOTE:	Alternate path begins here. JPM step 3 does not have to be performed if the candidate trips the output breaker before this.				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
3	Turn off the Synchroscope OFF.	Perform the following at the 1PM01J: ○ Place the Sync Selector Switch for the DG 1B Feed to 4KV BUS 142 in OFF position.	___	___	___
NOTE:	Examinee will be unable to stop the rising voltage on the 1B DG. The 1B DG will trip on overcurrent approximately 3 minutes after ACB 1423 is closed.				
***4**	**OPEN 1B Diesel Generator output breaker.**	Perform the following at 1PM01J: ○ Determine 1B DG output KVARS (1VI-DG012) rising. ○ Place DG voltage adjust control switch to LOWER. ○ Determine 1B DG output KVARS (1VI-DG012) still rising. ○ **OPEN ACB 1423 prior to 1B DG automatically tripping.** ○ Inform US of voltage control malfunction.	___	___	___
CUE	As the US, acknowledge the report that 1B DG voltage control failed and was not able to be controlled.				
CUE	That completes this JPM.				

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____ **Emp. ID#**: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Synchronize 1B EDG to bus 142 and Respond to Voltage Regulator Malfunction.

JPM Number: SIM-612 Revision Number: 151

Task Number and Title: R-DG-015

K/A Number and Importance: 064000A4.06 3.9/3.9

Suggested Testing Environment: Simulator

Alternate Path: ☒ Yes ☐ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

1. Reference(s): 1BwOSR 3.8.1.2-2, UNIT ONE 1B DIESEL GENERATOR OPERABILITY SURVEILLANCE, Rev. 39, BwOP DG-11T1, DIESEL GENERATOR START/STOP LOG, Rev 8

Actual Testing Environment: ☒ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: 10 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

1. You are an extra NSO.
2. All conditions are normal for current mode on Unit 1.
3. The 1B Diesel Generator was SLOW started from the control room per 1BwOSR 3.8.1.2-2, UNIT ONE 1B DIESEL GENERATOR OPERABILITY SURVEILLANCE, step F.2, and has been running unloaded for approximately fifteen minutes.
4. 1BwOSR 3.8.1.2-2, is in progress, and complete up to step F.5.0.

INITIATING CUE

1. Using the partially completed procedure provided, you have been directed by the Unit 1 Unit Supervisor to complete Section F.5.0 of 1BwOSR 3.8.1.2-2.
2. Inform the US when you have completed section F.5.0 of 1BwOSR 3.8.1.2-2.

Job Performance Measure

Respond to a 1PR03J high radiation alarm

JPM Number: SIM-706

Revision Number: 151

Date: 03 / 18 / 2016

Developed By:	Eric Steinberg Instructor	03/18/2016 Date
Validated By:	Dan Burton SME or Instructor	04/22/2016 Date
Reviewed By:	Kevin Lueshen Operations Representative	04/22/2016 Date
Approved By:	Eric Steinberg Training Department	04/26/2016 Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. If an alternate path is used, the task standard contains criteria for successful completion.

_____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure BwAR 1-1PR03J Rev: 02
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 10. Verify cues both verbal and visual are free of conflict.

_____ 11. Verify performance time is accurate

_____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

SRRS: 3D.100; There are no retention requirements for this section

Revision Record (Summary)

Revision 151, Updated to current procedure revisions and incorporated TQ-AA-150-J020 JPM template.

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC 03.

NOTE:	It is okay to use a similar IC to the IC listed above, provided the IC actually used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently. For this JPM, 1SX016B and 27B need to be open and all the RCFCs need to be running in low speed.

2. Verify the 1A SX pump is running and the 1B SX pump is secure.
3. Verify all RCFCs are running in low speed.
4. Verify 1SX016B and 1SX027B are open.
5. Select away from grid 1 on the RM-11.
6. **IMF RM04L -.1574** to cause a high radiation condition on the 1PR03J.
7. When the above steps are completed for this and other JPMs to be run concurrently then validate, if not previously validated, the concurrently run JPMs using the JPM Validation Checklist.
8. Complete the items on the Simulator Ready for Training Checklist.
9. This completes the setup for this JPM.
10. To run this JPM over
    - **DMF RM04L**
    - Ensure the printer for the RM-11 is advanced and any alarms are removed.
    - Ensure BwAR 1-1PR03J is clean and put away.
    - Repeat steps 2 through 9.

INITIAL CONDITIONS

1. You are the unit 1 assist NSO.
2. Unit 1 is currently in mode 5 preparing to return to power.

INITIATING CUE

1. The unit 1 RM-11 began alarming 10 seconds ago.
2. The Unit Supervisor directs you to respond to the RM-11 alarm.
3. Inform the Unit Supervisor when you have completed the response to the RM-11 alarm.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number

1	Determine alarm on RM-11.	Perform the following at the RM-11 console:
		• Determine 1PR03J is in HIGH alarm.
		  • Grid 1 cursor flashing RED on 6 grid display.
		  • 1PR03J flashing RED on GRID 1 display.
		• Acknowledge 1PR03J alarm:
		  • Depress GRID 1 key.
		  ○ Select 1PR03J by depressing SEL key.
		  - OR –
		  ○ Type in 1103 and depress SEL key.
		  ○ Depress STATUS key to access.
		• Notify Unit Supervisor of 1PR03J High Alarm.
			___	___	___

CUE	As the unit supervisor, acknowledge 1PR03J high alarm condition.				
***2**	**Shutdown 1B and 1D RCFC.**	Secure 1B and 1D RCFC by: • **Place 1VP01CB, 1B RCFC Lo Speed, C/S to TRIP.** • **Place 1VP01CD, 1D RCFC Lo Speed, C/S to TRIP.**	___	___	___
***3**	**Isolate the 1B and 1D RCFC SX inlet flowpath.**	Perform the following at 1PM06J: ○ Verify 1B SX Pump is NOT running. • **Close 1SX016B, 1B & 1D RCFC SX Inlet valve.**	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*4	**Isolate 1B and 1D RCFC SX Outlet Flowpath.**	Perform the following at 1PM06J: ○ Verify 1B and 1D RCFCs are NOT running. • **Close 1SX027B, 1B & 1D RCFC SX Outlet Valve.** ○ Notify Unit Supervisor of status of 1B & 1D RCFC. ○ Notify Chemistry to sample RCFC SX outlet flow ○ Notify Rad Protection to determine if release has occurred via RCFC SX outlet flowpath.	___	___	___
CUE	US acknowledges status of 1B and 1D RCFCs. Chemistry acknowledges request to sample 1B and 1D RCFC flow path. Rad Protection acknowledges request to determine if release occurred via 1B and 1D RCFC flowpath.				
CUE	This completes this JPM.				

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____ **Emp. ID#**: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Respond to 1PR03J High Radiation Alarm
JPM Number: SIM-706 Revision Number: 151
Task Number and Title: R-AR-011
K/A Number and Importance: 073000A4.02 3.7/3.7
Suggested Testing Environment: Simulator
Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No
Reference(s): BwAR 1-1PR03J,rev 2, 1B 1D RCFC SX OUTLET

Actual Testing Environment: ☒ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: 5 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:
Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

1. You are the unit 1 assist NSO.
2. Unit 1 is currently in mode 5 preparing to return to power.

INITIATING CUE

1. The unit 1 RM-11 began alarming 10 seconds ago.
2. The Unit Supervisor directs you to respond to the RM-11 alarm.
3. Inform the Unit Supervisor when you have completed the response to the RM-11 alarm.