

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 DOP 4700-03 Rev: 022
 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 00, Developed for ILT 15-1 (2016-301) NRC Exam

Revision 01, Revised for ILT 16-1 (2016-301) NRC Exam

SIMULATOR SETUP INSTRUCTIONS

1. N/A In-plant JPM

DOCUMENT PREPARATION

1. Mark up a copy of DOP 4700-03, Unit 2/3 Instrument Air Cross-Connect Operation through Step G.6, step G.7 is the next step to be performed.

INITIAL CONDITIONS

1. Unit 3 is shut down for a refuel outage.
2. 2A IAC is unavailable due to an oil leak.
3. 2B, 3A, 3B, and 3C IACs are supplying their own unit.
4. Unit 2 is at 100% power and is experiencing an Instrument Air transient that is causing the Unit 2 Instrument Air header pressure to drop slowly.
5. The Unit Supervisor has determined a Unit 3 Instrument air compressor must be aligned to Unit 2.
6. Unit 2 SAC is running.
7. Main Control Room is monitoring IA parameters.

INITIATING CUE

1. The Unit 2 Unit Supervisor has directed you to Cross-connect 3C Instrument Air Compressor to Unit 2 ONLY .
2. All applicable prerequisites of DOP 4700-03 have been met.
3. Your Pre Job Brief has been completed.
4. Notify the Unit Supervisor when you are complete with the task.

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: _____

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
NOTE	Provide examinee the marked up copy of DOP 4700-03.				
01	Identifies Step G.9 as the correct step in DOP 4700-03.	Proceeds to Step G.9.	—	—	—
CUE	Type cues to be provided by evaluator in these areas or delete row as applicable.				
02	Verify closed 3 4799 501A, 3C IAC DISCH TO U 3 INST AIR HEADER ISOL VLV.	Verifies 3 4799 501A, 3C IAC DISCH TO U 3 INST AIR HEADER ISOL VLV stem is in. (Valve is located above 3B IAC)	—	—	—
CUE	The component is in the position you described.				
*03	Close 2/3-4799-424, U2/U3 X-TIE SV.	Rotates 2/3-4799-424, U2/U3 X-TIE SV clockwise until stem is in. (Valve is located North of 3A IAC)	—	—	—
CUE	The component is in the position you described.				
*04	Open 2/3-4799-425, 3C IAC TO U2 AIR SYS X-TIE SV.	Rotates 2/3-4799-425, 3C IAC TO U2 AIR SYS X-TIE SV counter clockwise until stem is out. (Valve is located North of 3A IAC)	—	—	—
CUE	The component is in the position you described.				

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
*05	Open 2-47350-500, U2 INST AIR SYS XTIE FROM THE U3 INST AIR SYS.	Rotates 47350-500, U2 INST AIR SYS XTIE FROM THE U3 INST AIR SYS counter clockwise until stem is out. (Valve is located North of Cardox tank)	—	—	—
CUE	The component is in the position you described.				
*06	Open 2-47350-329, U2 INST AIR HDR ISOL VLV.	Rotates 2-47350-329, U2 INST AIR HDR ISOL VLV counter clockwise until stem is out. (Valve is located North of 2B IAC)	—	—	—
CUE	The component is in the position you described.				
07	Report completion of task to Unit Supervisor.	Reports completion of task to Unit Supervisor.	—	—	—
END					

 JPM Stop Time: _____

JPM SUMMARY**Operator's Name:** _____ **Emp. ID#:** _____**Job Title:** EO RO SRO FS STA/IA SRO Cert**JPM Title:** **IA – Lineup IAC to Unit 2 Instrument Air Header****JPM Number:** **S-N-i** **Revision Number:** **01****Task Number and Title:** **278N013 Lineup Unit 3 C Instrument Air Compressor to Unit 2****K/A Number and Importance:** **295019.A1.02 3.3 / 3.1****Suggested Testing Environment:** **In-Plant****Alternate Path:** Yes No **SRO Only:** Yes No **Time Critical:** Yes No**Reference(s):** **DOP 4700-03, Rev 022, UNIT 2-3 INSTRUMENT AIR CROSS-CONNECT OPERATION****Actual Testing Environment:** Simulator Control Room In-Plant Other**Testing Method:** Simulate Perform**Estimated Time to Complete:** **20 minutes** **Actual Time Used:** _____ minutes**EVALUATION SUMMARY:**Were all the Critical Elements performed satisfactorily? Yes NoThe 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 3 is shut down for a refuel outage.
2. 2A IAC is unavailable due to an oil leak.
3. 2B, 3A, 3B, and 3C IACs are supplying their own unit.
4. Unit 2 is at 100% power and is experiencing an Instrument Air transient that is causing the Unit 2 Instrument Air header pressure to drop slowly.
5. The Unit Supervisor has determined a Unit 3 Instrument air compressor must be aligned to Unit 2.
6. Unit 2 SAC is running.
7. Main Control Room is monitoring IA parameters.

INITIATING CUE

1. The Unit 2 Unit Supervisor has directed you to Cross-connect 3C Instrument Air Compressor to Unit 2 ONLY .
2. All applicable prerequisites of DOP 4700-03 have been met.
3. Your Pre Job Brief has been completed.
4. Notify the Unit Supervisor when you are complete with the task.

Job Performance Measure
Containment – Bypass Drywell Cooler Trip

JPM Number: S-N-j

Revision Number: 11

Date: 04 / 2017

Developed By: _____
Exam Author
Date

Approved By: _____
Facility Representative
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 DEOP 0500-02 Rev: 17
 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 10, Revised for ILT 15-1 (2016-301) NRC Exam

Revision 11, Revised for ILT 16-1 (2016-301) NRC Exam

SIMULATOR SETUP INSTRUCTIONS

1. N/A: In-Plant JPM

DOCUMENT PREPARATION

1. Clean copy of DEOP 0500-02, BYPASSING INTERLOCKS AND ISOLATIONS

INITIAL CONDITIONS

1. A fire has occurred resulting in a loss of the feeder breakers to Busses 33-1 AND 34-1 from Busses 33 AND 34.
2. The Unit 3 and 2/3 Diesel Generators have started AND are powering Busses 33-1 and 34-1.
3. The loss of Busses 33-1 AND 34-1 caused a spurious trip of the Unit 3 Drywell Coolers.
4. RBCCW pressure is normal with the 2/3 RBCCW pump in operation.
5. Drywell temperature and pressure are rising.

INITIATING CUE

1. The Unit Supervisor has directed you to perform the in-plant actions to bypass the Drywell Cooler trip signals to allow the restart of the Unit 3 Drywell Coolers for Drywell temperature control in accordance with DEOP 500-02.
2. Your Pre Job Brief has been completed.
3. Notify the Unit Supervisor when the in-plant actions are complete.

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: _____

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
NOTE	Provide examinee a current copy of DEOP 500-02.				
01	Proceed to Step G.3 of procedure	Locates Step G.3	—	—	—
NOTE	The DEOP Equipment Storage Cabinet key must be obtained from the Unit Supervisor.				
NOTE	Examinee should locate the proper Equipment Box in the cabinet. Tools required are: Electrical Tape, Standard Straight Screwdriver, Split Blade Screwdriver, and Insulated Gloves				
NOTE	<p style="text-align: center;">Do NOT allow examinee to remove the Equipment Box from the DEOP Equipment Storage Cabinet.</p> Lock cabinet and return DEOP key to Unit Supervisor PRIOR to leaving the Control Room.				
02	Obtain appropriate Equipment Box from the Control Room DEOP Equipment Storage Cabinet.	OBTAINS appropriate EQUIPMENT BOX from the Control Room DEOP Equipment Storage Cabinet	—	—	—
CUE	DEOP Equipment Box you have identified is in your hand.				
NOTE	DS key is required for entry into the AEER				
03	Proceed to the AEER and panel 903-32	Locates Panel 903-32	—	—	—
NOTE	Simulated JPM - Examinee must explain the task.				

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
*04	Lift <u>AND</u> tape lead on 903-32 panel terminal block AA terminal point 6 <u>OR</u> terminal point 7	On 903-32 panel terminal block AA terminal point 6 <u>OR</u> terminal point 7 <ul style="list-style-type: none"> • Puts on insulated gloves. • Loosens screw with standard screwdriver. • Uses split blade screwdriver to grasp screw and remove it. • Tapes the loose wire with electricians tape. 	—	—	—
CUE	903-32 panel terminal block AA terminal point 6 <u>OR</u> terminal point 7 screw is removed and the loose wire is taped.				
*05	Lift <u>AND</u> tape lead on 903-33 panel terminal block AA terminal point 6 <u>OR</u> terminal point 7	On 903-33 panel terminal block AA terminal point 6 <u>OR</u> terminal point 7 <ul style="list-style-type: none"> • Puts on insulated gloves. • Loosens screw with standard screwdriver. • Uses split blade screwdriver to grasp screw and remove it. • Tapes the loose wire with electricians tape. 	—	—	—
CUE	903-33 panel terminal block AA terminal point 6 <u>OR</u> terminal point 7 screw is removed and the loose wire is taped.				
06	Notify Unit Supervisor upon completion of task.	Notifies Unit Supervisor upon completion of task.	—	—	—
CUE	Acknowledge report of task completion.				
END					

 JPM Stop Time: _____

JPM SUMMARY**Operator's Name:** _____ **Emp. ID#:** _____**Job Title:** EO RO SRO FS STA/IA SRO Cert**JPM Title: Containment – Bypass Drywell Cooler Trip****JPM Number: S-N-j** **Revision Number: 11****Task Number and Title: 295L074, Bypass the Trip of Drywell Coolers****K/A Number and Importance: 295028.A1.03 3.9 / 3.9****Suggested Testing Environment: In-Plant****Alternate Path:** Yes No **SRO Only:** Yes No **Time Critical:** Yes No**Reference(s): DEOP 0500-02, Rev 017, BYPASSING INTERLOCKS AND ISOLATIONS****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 NoThe 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. A fire has occurred resulting in a loss of the feeder breakers to Busses 33-1 AND 34-1 from Busses 33 AND 34.
2. The Unit 3 and 2/3 Diesel Generators have started AND are powering Busses 33-1 and 34-1.
3. The loss of Busses 33-1 AND 34-1 caused a spurious trip of the Unit 3 Drywell Coolers.
4. RBCCW pressure is normal with the 2/3 RBCCW pump in operation.
5. Drywell temperature and pressure are rising.

INITIATING CUE

1. The Unit Supervisor has directed you to perform the in-plant actions to bypass the Drywell Cooler trip signals to allow the restart of the Unit 3 Drywell Coolers for Drywell temperature control in accordance with DEOP 500-02.
2. Your Pre Job Brief has been completed.
3. Notify the Unit Supervisor when the in-plant actions are complete.

Job Performance Measure
Place Zinc Injection System in Injection Mode

JPM Number: S-N-k

Revision Number: 00

Date: 05 / 2017

Developed By: _____
Exam Author Date

Approved By: _____
Facility Representative 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 DOP 3200-09 Rev: 26
 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 00, New JPM created for 2017-301 (ILT 16-1) NRC Exam

SIMULATOR SETUP INSTRUCTIONS

1. N/A: In-Plant JPM

DOCUMENT PREPARATION

1. Mark up a copy of DOP 3200-09, Rev 026, ZINC INJECTION SYSTEM OPERATION through step F.5

INITIAL CONDITIONS

1. Unit 2 startup is in progress.
2. 2A RFP pump is operating
3. Zinc injection system has been pre-heated IAW DOP 3200-09.

INITIATING CUE

1. The Unit Supervisor has directed you to place the Zinc Injection System in injection mode IAW DOP DOP 3200-09, Zinc Injection System Operation
2. Set injection flow rate to 100 gpm.
3. All applicable prerequisites of DOP 3200-09 have been met.
4. Your Pre Job Brief has been completed.
5. Notify the Unit Supervisor when you are complete with the task.

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.

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The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
NOTE	Provide examinee the marked up copy of DOP 3200-09.				
01	Verify Zinc Injection System has been pre-heated	As described in the initial conditions	—	—	—
*02	Close 2-3210-14, U2 FW ZIP SKID FILTER FLOW CONTROL VLV	Rotates 2-3210-14, U2 FW ZIP SKID FILTER FLOW CONTROL VLV clockwise	—	—	—
CUE	The component is in the position you described.				
*03	Close 2-3210-12, U2 FW ZIP SKID FILTER INLET INBD ISOL VLV	Rotates 2-3210-12, U2 FW ZIP SKID FILTER INLET INBD ISOL VLV clockwise	—	—	—
CUE	The component is in the position you described.				
*04	Close 2-3210-13, U2 FW ZIP SKID FILTER INLET OTBD ISOL VLV	Rotates 2-3210-13, U2 FW ZIP SKID FILTER INLET OTBD ISOL VLV clockwise	—	—	—
CUE	The component is in the position you described.				
*05	Close 2-3210-15, U2 FW ZIP SKID FILTER OUTLET OTBD ISOL VLV	Rotates 2-3210-15, U2 FW ZIP SKID FILTER OUTLET OTBD ISOL VLV clockwise	—	—	—
CUE	The component is in the position you described.				
*06	Close 2-3210-16, U2 FW ZIP SKID FILTER OUTLET INBD ISOL VLV	Rotates 2-3210-16, U2 FW ZIP SKID FILTER OUTLET INBD ISOL VLV clockwise	—	—	—
CUE	The component is in the position you described.				

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
*07	Fully open 2-3210-3, U2 FW ZIP SKID OUTLET ISOL VLV	Rotates 2-3210-3, U2 FW ZIP SKID OUTLET ISOL VLV counter clockwise	—	—	—
CUE	The component is in the position you described.				
*08	Throttle open 2-3210-2, U2 FW ZIP SKID OUTLET FLOW CONTROL VLV, to achieve approximately 100 gpm on FI 2-3241-138	Rotates 2-3210-2, U2 FW ZIP SKID OUTLET FLOW CONTROL VLV counter clockwise Monitors FI 2-3241-138 for 100 gpm indication	—	—	—
CUE	FI 2-3241-138 indicates flow of 100 gpm				
09	Notify NSO to confirm the placard on Panel 902-6 reflects injection into applicable RFP	Contacts MCR and informs NSO that Zinc Injection is aligned for Injection	—	—	—
CUE	Acknowledge report				
10	Visually inspect skid components for leakage	Inspects the zinc skid for signs of leakage	—	—	—
CUE	No leakage is observed				
11	Notify the Chemistry Department that Zinc Injection is aligned for Injection	Contacts Chemistry Department and informs that Zinc Injection is aligned for Injection	—	—	—
CUE	Acknowledge report				
12	Report completion of task to Unit Supervisor.	Reports completion of task to Unit Supervisor.	—	—	—
END					

 JPM Stop Time: _____

JPM SUMMARY**Operator's Name:** _____ **Emp. ID#:** _____**Job Title:** EO RO SRO FS STA/IA SRO Cert**JPM Title:** **Place Zinc Injection System in Injection Mode****JPM Number:** **S-N-k****Revision Number:** **00****Task Number and Title:** **259L013 – Perform Startup of the First Reactor Feed Pump****K/A Number and Importance:** **259001.A1.01 3.3 / 3.3****Suggested Testing Environment:** In-Plant**Alternate Path:** Yes No **SRO Only:** Yes No **Time Critical:** Yes No**Reference(s):** **DOP 3200-09, Rev 026, Zinc Injection System Operation****Actual Testing Environment:** Simulator Control Room In-Plant Other**Testing Method:** Simulate Perform**Estimated Time to Complete:** **00 minutes****Actual Time Used:** _____ minutes**EVALUATION SUMMARY:**Were all the Critical Elements performed satisfactorily? Yes NoThe 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 2 startup is in progress.
2. 2A RFP pump is operating
3. Zinc injection system has been pre-heated IAW DOP 3200-09.

INITIATING CUE

1. The Unit Supervisor has directed you to place the Zinc Injection System in injection mode IAW DOP DOP 3200-09, Zinc Injection System Operation
2. Set injection flow rate to 100 gpm.
3. All applicable prerequisites of DOP 3200-09 have been met.
4. Your Pre Job Brief has been completed.
5. Notify the Unit Supervisor when you are complete with the task.