

JOB PERFORMANCE MEASURE

Job Position SRO / RO	No. JP-OP-315-0262-001	Revision 0
JPM Title Startup UPS Bus A (B) Rectifier Charger/Inverter [New]	Duration 10 minutes	Page COVER SHEET

Examinee: _____ SRO / RO

Evaluator: _____

JPM Type: **Normal** / Alternate Path / Time Critical

Evaluation Method: Perform / **Walkthrough** / Discuss Start Time _____

(Circle method used) **Plant** / Simulator / Classroom Stop Time _____

Total Time: _____

PERFORMANCE EVALUATION SUMMARY							
Element	S	U	Comments	Element	S	U	Comments
1.							
* 2.							
* 3.							
4.							
5.							
6.							
* 7.							
8.							
* 9.							
10.							
11.							
12.							

_____ SATISFACTORY

_____ UNSATISFACTORY

OVERALL EVALUATOR COMMENTS:

Evaluator Signature / Date: _____ / _____

JOB PERFORMANCE MEASURE

JPM Title Startup UPS Bus A (B) Rectifier Charger/Inverter	No.: JP-OP-315-0262-001 Revision: 0 Page 1
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Preferred Evaluation Method:

Perform _____ Walkthrough X Discuss _____
Plant X Simulator _____ Classroom _____

System:

R3100 - Uninterruptible Power Supply

Task:

04R3100001 - Startup UPS

References: Required (R) / Available (A)

23.308.01, Uninterruptible Power Supply (UPS) System (R)

Tools and Equipment Required:

None

Initial Conditions:

You are the extra operator on shift.

Initiating Cue(s):

- The Control Room NSO directs you to startup UPS Bus A (B) Rectifier Charger/Inverter.
- The electrical lineup is complete in accordance with 23.308.01, Attachment 1.

Terminating Cue(s):

UPS Bus A (B) Rectifier Charger/Inverter has been started.

Task Standard:

UPS Bus A (B) Rectifier Charger/Inverter has been started in accordance with 23.308.01.

Licensed Operator Exam Information (required for NRC exams)

Safety Function:

6 - Electrical

K/A Reference: (from NUREG 1123)

K/A SYSTEM: 262001 - A.C. Electrical Distribution
K/A STATEMENT:
A1. Ability to predict and/or monitor changes in parameters associated with operating the A.C. ELECTRICAL DISTRIBUTION controls including: (CFR: 41.5 / 45.5)
A1.05 Breaker lineups..... 3.2 / 3.5

Maintenance Rule Safety Classification:

R3100-05

Maintenance Rule Risk Significant? (Yes or No)

No

JOB PERFORMANCE MEASURE

JPM Title Startup UPS Bus A (B) Rectifier Charger/Inverter	No.: JP-OP-315-0262-001 Revision: 0 Page 2
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PERFORMANCE EVALUATION

Start Time _____

ELEMENT		STANDARD	
NOTE: Cues are indicated on the line above (just prior to) the step for which they are/may be required.			
CUE: Provide Examinee with Cue Sheet. After examinee has shown he can acquire a controlled copy of the procedure, provide him with a copy of 23.308.01.			
CUE: The Timer Reset toggle switch is in TIMER RESET.			
1.	Verify or place Timer Reset toggle switch in TIMER RESET (float).	1.	Verifies Timer Reset toggle switch in TIMER RESET (float).
CUE: The Rectifier DC Output circuit breaker is in ON.			
* 2.	Place Rectifier DC Output circuit breaker in ON.	* 2.	Places Rectifier DC Output circuit breaker in ON.
CUE: The Rectifier AC Input circuit breaker is in ON.			
* 3.	Place Rectifier AC Input circuit breaker in ON.	* 3.	Places Rectifier AC Input circuit breaker in ON.
CUE: The AC Normal Source light is ON.			
4.	Verify amber AC Normal Source light is ON (Mimic Bus).	4.	Verifies amber AC Normal Source light is ON (Mimic Bus).
CUE: The Rectifier DC Output voltmeter indicates 270V DC.			
5.	Verify Rectifier DC Output voltmeter is greater than 210V DC.	5.	Verifies Rectifier DC Output voltmeter is greater than 210V DC.
CUE: Battery DC Input voltage indicates 270V DC.			
6.	Verify Battery DC Input voltage is greater than 210V DC.	6.	Verifies Battery DC Input voltage is greater than 210V DC.
CUE: The DC Filter Charge toggle switch is in ON.			
* 7.	On Panel R3100-S011 (S007), UPS Bus A (B) Inverter, place DC Filter Charge toggle switch in ON.	* 7.	Places DC Filter Charge toggle switch in ON.
CUE: After 3 seconds, the DC Filter Charged light is ON.			
8.	On Panel R3100-S011 (S007), after 3 seconds, verify red DC Filter Charged light is ON.	8.	Verifies red DC Filter Charged light is ON after 3 seconds.
CUE: Time Compression will be used for the 15 minute warmup.			
CUE: Inverter DC Input circuit breaker is closed.			
* 9.	When logic circuitry has warmed up for at least 15 minutes and red DC Filter Charged light is ON at Panel R3100-S011 (S007), close Inverter DC Input circuit breaker.	* 9.	Closes Inverter DC Input circuit breaker when logic circuitry has warmed up and red DC Filter Charged light is ON.
CUE: The Source Select switch is in OUTPUT.			

JOB PERFORMANCE MEASURE

JPM Title Startup UPS Bus A (B) Rectifier Charger/Inverter	No.: JP-OP-315-0262-001 Revision: 0 Page 3
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ELEMENT	STANDARD
10. Verify Source Select switch in OUTPUT.	10. Verifies Source Select switch in OUTPUT.
CUE: AC output voltage indicates 120.0V AC.	
11. Verify AC output voltage is 117.5 to 122.5V AC as indicated on AC Voltage meter.	11. Verifies AC output voltage is 117.5 to 122.5V AC as indicated on AC Voltage meter.
CUE: The Inverter AC Output light is ON.	
12. Verify amber Inverter AC Output light is ON (Mimic Bus).	12. Verifies amber Inverter AC Output light is ON (Mimic Bus).
CUE: End JPM when UPS A(B) Rectifier Charger/Inverter has been started up.	

_____ SATISFACTORY

_____ UNSATISFACTORY

Stop Time _____ * Critical Step

JOB PERFORMANCE MEASURE

JPM Title Startup UPS Bus A (B) Rectifier Charger/Inverter	No.: JP-OP-315-0262-001 Revision: 0 Page 4
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Evaluator Notes:

Start this JPM at the UPS.

This JPM can be performed on either UPS.

ENSURE ALL INDUSTRIAL AND PERSONNEL SAFETY PRACTICES ARE USED AND ENFORCED AT ALL TIMES.

Generic Notes and Cues:

CMC switches will turn RED and amperage will increase when the switch is rotated to the start position started. The current should initially be five to seven times the normal running amps with the ammeter flashing. As counter EMF is developed, the amperage will lower to the normal running amperage and the ammeter will no longer flash. CMC switches will turn GREEN when the pumps are stopped and amperage will decrease to zero.

Ex.: Pump start: "Switch has been rotated to the start position, red light is lit, green light is out, amperage initially pegs out high, and is now indicating X amps."

Pump stop: "Switch has been rotated to the stop position, green light is lit, red light is out, amperage indicates 0 amps."

Remotely operated valve position is determined with open and close indicating lights. A RED light only would indicate that the valve is open. A GREEN light only would indicate that the valve is closed. Dual indication would indicate that the valve is in some intermediate position.

Manual valves are checked in the closed direction (MOP02 and MOP05). Valve stem position may aid in valve position determination, but cannot be used as Independent Verification (MOP02).

Ex.: Verify valve closed: "Valve handwheel indicates no valve movement in the clockwise direction."

Verify valve open: "Valve handwheel has been rotated slightly in the clockwise direction and returned to the original positions."

Closing a valve: "Valve handwheel has been rotated in the fully clockwise direction until no additional valve movement. Valve stem is down."

Opening a valve: "Valve handwheel has been rotated in the fully counterclockwise direction until no additional valve movement, valve stem is out."

Controllers have an Auto light that is GREEN when selected and AMBER (YELLOW) when Manual is selected. When in Manual, the open and closed pushbuttons control the parameter to be changed by adjusting position or speed. When the deviation meter is nulled, then the process can be shifted to Auto to allow the desired setpoint to control the process.

System Specific Notes and Cues:

None

Task Performance and Cues:

The Elements of this JPM are step by step in accordance with the procedure. The Standard is that the procedure is performed as written. The Cues are as listed above for indication or as each step is completed the appropriate information is reported to the examinee. Notify Examinee that time compression may be used for activities performed outside of the Control Room.

Critical Steps:

Critical Tasks are identified by asterisk (*) and **bolded** steps on the cover sheet. Verify that the latest revision of the procedure is used and critical tasks are correctly identified.

JOB PERFORMANCE MEASURE

JPM Title Startup UPS Bus A (B) Rectifier Charger/Inverter	No.: JP-OP-315-0262-001 Revision: 0 Page 5
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FOLLOW-UP DOCUMENTATION QUESTIONS

Reason for follow-up question(s):

Question:

Reference:

Response:

Question:

Reference

Response:

JOB PERFORMANCE MEASURE

JPM Title Startup UPS Bus A (B) Rectifier Charger/Inverter	No.: JP-OP-315-0262-001 Revision: 0 Page 6
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Simulator Setup

IC#:

N/A

Malfunctions:

Number	Title	Value	Delay	Ramp
N/A				

Remote Functions:

Number	Title	Value	Delay	Ramp
N/A				

Override Functions:

Number	Title	Value	Delay	Ramp
N/A				

Special Instructions:

N/A

Cue Sheet: (JP-OP-315-0262-001)

Initial Conditions:

You are the extra operator on shift.

Initiating Cue(s):

- The Control Room NSO directs you to startup UPS Bus A (B) Rectifier Charger/Inverter.
- The electrical lineup is complete in accordance with 23.308.01, Attachment 1.

JOB PERFORMANCE MEASURE

Job Position SRO / RO	No. JP-OP-802-3006-321	Revision 2
JPM Title Defeat RBCCW/EECW to Drywell Isolations [Bank]	Duration 25 minutes	Page COVER SHEET

Examinee: _____ SRO / RO

Evaluator: _____

JPM Type: **Normal** / Alternate Path / Time Critical
 Evaluation Method: Perform / **Walkthrough** / Discuss Start Time _____
 (Circle method used) **Plant** / Simulator / Classroom Stop Time _____
 Total Time: _____

PERFORMANCE EVALUATION SUMMARY							
Element	S	U	Comments	Element	S	U	Comments
* 1.							
* 2.							
* 3.							

_____ SATISFACTORY

_____ UNSATISFACTORY

OVERALL EVALUATOR COMMENTS:

Evaluator Signature / Date: _____ / _____

JOB PERFORMANCE MEASURE

JPM Title Defeat RBCCW/EECW to Drywell Isolations	No.: JP-OP-802-3006-321 Revision: 2 Page 1
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Preferred Evaluation Method:

Perform _____ Walkthrough X Discuss _____
Plant X Simulator _____ Classroom _____

System:

P4400 – EECW / RBCCW

Task:

04P4400013 - Perform RBCCW/EECW to the Drywell Isolation defeat

References: Required (R) / Available (A)

29.ESP.23, Defeat of RBCCW/EECW to Drywell (R)
ODE14, Attachment 9, Energized Equipment Work Permit (A)

Tools and Equipment Required:

- EOP Defeat package for 29.ESP.23, Defeat of RBCCW/EECW to Drywell
- Flashlight
- Low voltage electrical gloves
- Electrical tape

Initial Conditions:

- You are the Control Room NSO.
- EOP flowcharts direct defeat of RBCCW/EECW Isolations.

Initiating Cue(s):

The CRS directs you to defeat RBCCW/EECW Isolations per 29.ESP.23.

Terminating Cue(s):

RBCCW/EECW Isolation is defeated per 29.ESP.23.

Task Standard:

RBCCW/EECW Isolation is defeated per 29.ESP.23.

JOB PERFORMANCE MEASURE

JPM Title Defeat RBCCW/EECW to Drywell Isolations	No.: JP-OP-802-3006-321 Revision: 2 Page 2
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Licensed Operator Exam Information (required for NRC exams)

Safety Function:

8 – Plant Service Systems

K/A Reference: (from NUREG 1123)

K/A SYSTEM: 295024 - High Drywell Pressure
K/A STATEMENT:
EA1. Ability to operate and/or monitor the following as they apply to HIGH DRYWELL PRESSURE:
EA 1.07PCIS/NSSSS..... 3.8 / 3.9

Maintenance Rule Safety Classification:

P4400-01

Maintenance Rule Risk Significant? (Yes or No)

Yes

JOB PERFORMANCE MEASURE

JPM Title Defeat RBCCW/EECW to Drywell Isolations	No.: JP-OP-802-3006-321 Revision: 2 Page 3
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PERFORMANCE EVALUATION

Start Time _____

ELEMENT		STANDARD	
NOTE: Cues are indicated on the line above (just prior to) the step for which they are/may be required.			
CUE: Provide examinee with Cue Sheet. After SM EOP Locker is opened, provide examinee with copy of 29.ESP.23 and ODE14, Attachment 9.			
* 1.	Retrieve EOP Defeat Package from SM EOP Locker.	* 1.	EOP Defeat Package retrieved from SM EOP Locker.
NOTE: While working in the Relay Room panels, all conductive jewelry should be removed, and safety glasses and 100% cotton long sleeves should be worn.			
CUE: The Lead at Terminal B-171 is lifted.			
* 2.	At RR H11-P857, lift lead at Terminal B-171 (Division 1).	* 2.	Lead at Terminal B-171 lifted.
CUE: The Lead at Terminal E-191 is lifted.			
* 3.	At RR H11-P870, lift lead at Terminal E-191 (Division 2).	* 3.	Lead at Terminal E-191 lifted.
CUE: End JPM when RBCCW/EECW Isolation is defeated per 29.ESP.23.			

_____ SATISFACTORY

_____ UNSATISFACTORY

Stop Time _____

* **Critical Step**

JOB PERFORMANCE MEASURE

JPM Title Defeat RBCCW/EECW to Drywell Isolations	No.: JP-OP-802-3006-321 Revision: 2 Page 4
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Evaluator Notes:

Ensure SM informed of JPM walkthrough in relay room and cabinet doors opened for walkthrough of this task.

Stop the JPM if, at any time, this JPM interferes with plant operation.

ENSURE ALL INDUSTRIAL AND PERSONNEL SAFETY PRACTICES ARE USED AND ENFORCED AT ALL TIMES.

Generic Notes and Cues:

CMC switches will turn RED and amperage will increase when the switch is rotated to the start position started. The current should initially be five to seven times the normal running amps with the ammeter flashing. As counter EMF is developed, the amperage will lower to the normal running amperage and the ammeter will no longer flash. CMC switches will turn GREEN when the pumps are stopped and amperage will decrease to zero.

Ex.: Pump start: "Switch has been rotated to the start position, red light is lit, green light is out, amperage initially pegs out high, and is now indicating X amps."

Pump stop: "Switch has been rotated to the stop position, green light is lit, red light is out, amperage indicates 0 amps."

Remotely operated valve position is determined with open and close indicating lights. A RED light only would indicate that the valve is open. A GREEN light only would indicate that the valve is closed. Dual indication would indicate that the valve is in some intermediate position.

Manual valves are checked in the closed direction (MOP02 and MOP05). Valve stem position may aid in valve position determination, but cannot be used as Independent Verification (MOP02).

Ex.: Verify valve closed: "Valve handwheel indicates no valve movement in the clockwise direction."

Verify valve open: "Valve handwheel has been rotated slightly in the clockwise direction and returned to the original positions."

Closing a valve: "Valve handwheel has been rotated in the fully clockwise direction until no additional valve movement. Valve stem is down."

Opening a valve: "Valve handwheel has been rotated in the fully counterclockwise direction until no additional valve movement, valve stem is out."

Controllers have an Auto light that is GREEN when selected and AMBER (YELLOW) when Manual is selected. When in Manual, the open and closed pushbuttons control the parameter to be changed by adjusting position or speed. When the deviation meter is nulled, then the process can be shifted to Auto to allow the desired setpoint to control the process.

System Specific Notes and Cues:

ESP Defeats are installed either by installing a jumper, lifting leads, or removing a plug-in relay or fuse.

Installing Jumpers:

- Ensure the operator goes to the SM and obtains the key to the EOP cabinet.
- Upon unlocking the cabinet, the operator finds the correct package and ensures the proper equipment is in the package.
- Per the attached drawing, locate the panel and verify the panel opened is correct and the operator has opened the correct side door.
- Within the panel, locate the proper terminal strip and verify that the proper terminal number is selected.
- Using proper safety techniques, a jumper is landed on each terminal ensuring that no other terminal is touched or cabinet ground is touched with the free end.
- Repeat until all jumpers are installed per the package.

JOB PERFORMANCE MEASURE

JPM Title Defeat RBCCW/EECW to Drywell Isolations	No.: JP-OP-802-3006-321 Revision: 2 Page 5
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- For some cabinets, the terminals are separated load to source side of the terminal point by a Knife Switch. In these cabinets the direction of the ESP has the knife switch screw unlocked and opened prior to installing the defeat. This will be spelled out and then the same rules as above apply.
- When both ends are safely landed on all jumpers per the package in the proper location, the operator calls the control room and informs them that the defeat is installed.

Lifting Leads:

- Ensure the operator goes to the SM and obtains the key to the EOP cabinet.
- Upon unlocking the cabinet, the operator finds the correct package and ensures the proper equipment is in the package.
- Per the attached drawing, locate the panel and verify the panel opened is correct and the operator has opened the correct side door.
- Within the panel, locate the proper terminal strip and verify that the proper terminal number is selected.
- Using the proper safety techniques, remove the locking screw and remove the wire from the terminal point keeping it from making contact with the other cabinet wiring or cabinet sides.
- Tape the wire electrical end or install the boot provided.
- For some terminal points, more than one wire will be terminated at the proper point. For these, the instruction will read "Lift and separate leads". This means remove the leads safely and place each into boots or tape separately.
- For some cabinets, the terminals are separated load to source side of the terminal point by a Knife Switch. In these cabinets the direction of the ESP has the knife switch screw unlocked and opened prior to installing the defeat. This will be spelled out and then the same rules as above apply.
- When all leads are removed per the package in the proper location, the operator calls the control room and informs them that the defeat is complete.

Remove Plug-in Relay or Fuse:

- Ensure the operator goes to the SM and obtains the key to the EOP cabinet.
- Upon unlocking the cabinet, the operator finds the correct package and ensures the proper equipment is in the package.
- Per the attached drawing, locate the panel and verify the panel opened is correct and the operator has opened the correct side door.
- Locate the plug-in relay or fuse and verify the defeat package to the relay, or fuse in question, labels.
- Plug-in relays have seismic clips which need to be removed first and then grasped on either side and pulled straight back out of the cabinet.
- Fuses need to be grasped by fuse pullers and pulled out evenly and in one motion. There is a fuse identifier mylar cover on some fuses which needs to be removed to reach the fuse.
- The one exception is the Main Turbine Bypass Dump System fuses which set in the H11P632 cabinet in a fuse block. FS59 & FS60 are contained in a block that can be pulled out much like the plug-in relay without the seismic clip.
- When all steps are complete, contact the control room and announce that the defeat is completed.

Task Performance and Cues:

The Elements of this JPM are step by step in accordance with the procedure. The Standard is that the procedure is performed as written. The Cues are as listed above for indication or as each step is completed the appropriate information is reported to the examinee. Notify Examinee that time compression may be used for activities performed outside of the Control Room. Notify Examinee if JPM is Time Critical (only if JPM is **NOT** Alternate Path.)

Critical Steps:

Critical Tasks are identified by asterisk (*) and **bolded** steps on the cover sheet. Verify that the latest revision of the procedure is used and critical tasks are correctly identified.

JOB PERFORMANCE MEASURE

JPM Title Defeat RBCCW/EECW to Drywell Isolations	No.: JP-OP-802-3006-321 Revision: 2 Page 6
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FOLLOW-UP DOCUMENTATION QUESTIONS

Reason for follow-up question(s):

Question:

Reference:

Response:

Question:

Reference

Response:

JOB PERFORMANCE MEASURE

JPM Title Defeat RBCCW/EECW to Drywell Isolations	No.: JP-OP-802-3006-321 Revision: 2 Page 7
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Simulator Setup

IC#:

N/A

Malfunctions:

Number	Title	Value	Delay	Ramp
N/A				

Remote Functions:

Number	Title	Value	Delay	Ramp
N/A				

Override Functions:

Number	Title	Value	Delay	Ramp
N/A				

Special Instructions:

N/A

Cue Sheet: (JP-OP-802-3006-321)

Initial Conditions:

- You are the CRNSO.
- EOP flowcharts direct defeat of RBCCW/EECW Isolations.

Initiating Cue(s):

- The CRS directs you to defeat RBCCW/EECW Isolations per 29.ESP.23.

JOB PERFORMANCE MEASURE

Job Position SRO / RO	No. JP-OP-315-0150-001	Revision 2
JPM Title Start up Fuel Pool Ventilation Exhaust Radiation Monitor D11-K609A [Bank]	Duration 5 minutes	Page COVER SHEET

Examinee: _____ SRO / RO

Evaluator: _____

JPM Type: **Normal** / Alternate Path / Time Critical

Evaluation Method: Perform / **Walkthrough** / Discuss Start Time _____

(Circle method used) **Plant** / Simulator / Classroom Stop Time _____

Total Time: _____

PERFORMANCE EVALUATION SUMMARY							
Element	S	U	Comments	Element	S	U	Comments
1.							
* 2.							
3.							
4.							
5.							

_____ SATISFACTORY

_____ UNSATISFACTORY

OVERALL EVALUATOR COMMENTS:

Evaluator Signature / Date: _____ / _____

JOB PERFORMANCE MEASURE

JPM Title Start up Fuel Pool Ventilation Exhaust Radiation Monitor D11-K609A	No.: JP-OP-315-0150-001 Revision: 2 Page 1
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Preferred Evaluation Method:

Perform _____ Walkthrough X Discuss _____
 Plant X Simulator _____ Classroom _____

System:

D1100 – Radiation Monitoring

Task:

02D1100007 - Operate the Division I/II Fuel Pool Ventilation Exhaust Radiation Monitors

References: Required (R) / Available (A)

23.625, Process Gaseous Radiation Monitoring (R)

Tools and Equipment Required:

None

Initial Conditions:

- You are the Patrol NSO.
- Maintenance was performed on Fuel Pool Ventilation Exhaust Radiation Monitor D11-K609A. Maintenance is complete.

Initiating Cue(s):

- The CRS directs you to place Div I Fuel Pool Ventilation Exhaust Radiation Monitor D11-K609A in service in accordance with 23.625.
- All prerequisites are complete.

Terminating Cue(s):

Fuel Pool Vent Exhaust Radiation Monitor D11-K609A is in service per 23.625.

Task Standard:

Fuel Pool Vent Exhaust Radiation Monitor D11-K609A has been started up in accordance with 23.625.

Licensed Operator Exam Information (required for NRC exams)

Safety Function:

9 – Radioactivity Release

K/A Reference: (from NUREG 1123)

K/A SYSTEM: 272000 - Radiation Monitoring System

K/A STATEMENT:

A1. Ability to predict and/or monitor changes in parameters associated with operating the RADIATION MONITORING SYSTEM controls including: (CFR: 41.5 / 45.5)

A1.01 Lights, alarms, and indications associated with normal operations..... 3.2 / 3.2

Maintenance Rule Safety Classification:

D1100-03

Maintenance Rule Risk Significant? (Yes or No)

Yes

JOB PERFORMANCE MEASURE

JPM Title Start up Fuel Pool Ventilation Exhaust Radiation Monitor D11-K609A	No.: JP-OP-315-0150-001 Revision: 2 Page 2
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PERFORMANCE EVALUATION

Start Time _____

ELEMENT	STANDARD
CUE: Provide examinee with Cue Sheet.	
CUE: Mode Selector Switch (S1) is in OPERATE.	
1. At D11-K609A, Div 1 Fuel Pool E Vent Exh Rad Monitor, verify Mode Selector Switch (S1) is in OPERATE.	1. Verifies Mode Selector Switch (S1) is in OPERATE.
CUE: RESET Pushbutton (S2) has been depressed.	
* 2. At D11-K609A, Div 1 Fuel Pool E Vent Exh Rad Monitor, depress RESET Pushbutton (S2).	* 2. Depresses RESET Pushbutton (S2).
CUE: White LOW light (DS-1) is OFF.	
3. At D11-K609A, Div 1 Fuel Pool E Vent Exh Rad Monitor, verify white LOW light (DS-1) is OFF.	3. Verifies white LOW light (DS-1) is OFF.
CUE: Amber HIGH light (DS-2) is OFF.	
4. At D11-K609A, Div 1 Fuel Pool E Vent Exh Rad Monitor, verify amber HIGH light (DS-2) is OFF.	4. Verifies amber HIGH light (DS-2) is OFF.
CUE: Alarms 3D27, 3D31, and 3D35 are clear.	
5. Verify the following alarms are clear: <ul style="list-style-type: none"> • 3D27, DIV I/II FP VENT EXH RADN MONITOR DNSCL/INOP • 3D31, DIV I/II FP VENT EXH RADN MONITOR UPSCALE • 3D35, DIV I/II FP VENT EXH RADN MONITOR UPSCALE TRIP 	5. Contacts the Control Room to verify alarms 3D27, 3D31, and 3D35 are clear.
CUE: End JPM when Fuel Pool Vent Exhaust Radiation Monitor D11-K609A is in service.	

_____ SATISFACTORY

_____ UNSATISFACTORY

Stop Time _____

* Critical Step

JOB PERFORMANCE MEASURE

JPM Title Start up Fuel Pool Ventilation Exhaust Radiation Monitor D11- K609A	No.: JP-OP-315-0150-001 Revision: 2 Page 3
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Evaluator Notes:

Do not permit the examinee to operate any plant equipment. Placing the Mode Selector Switch in any position other than OPERATE will trip RBHVAC.

ENSURE ALL INDUSTRIAL AND PERSONNEL SAFETY PRACTICES ARE USED AND ENFORCED AT ALL TIMES.

Generic Notes and Cues:

CMC switches will turn RED and amperage will increase when the switch is rotated to the start position started. The current should initially be five to seven times the normal running amps with the ammeter flashing. As counter EMF is developed, the amperage will lower to the normal running amperage and the ammeter will no longer flash. CMC switches will turn GREEN when the pumps are stopped and amperage will decrease to zero.

Ex.: Pump start: "Switch has been rotated to the start position, red light is lit, green light is out, amperage initially pegs out high, and is now indicating X amps."

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Manual valves are checked in the closed direction (MOP02 and MOP05). Valve stem position may aid in valve position determination, but cannot be used as Independent Verification (MOP02).

Ex.: Verify valve closed: "Valve handwheel indicates no valve movement in the clockwise direction."

Verify valve open: "Valve handwheel has been rotated slightly in the clockwise direction and returned to the original positions."

Closing a valve: "Valve handwheel has been rotated in the fully clockwise direction until no additional valve movement. Valve stem is down."

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Controllers have an Auto light that is GREEN when selected and AMBER (YELLOW) when Manual is selected. When in Manual, the open and closed pushbuttons control the parameter to be changed by adjusting position or speed. When the deviation meter is nulled, then the process can be shifted to Auto to allow the desired setpoint to control the process.

System Specific Notes and Cues:

None

Task Performance and Cues:

The Elements of this JPM are step by step in accordance with the procedure. The Standard is that the procedure is performed as written. The Cues are as listed above for indication or as each step is completed the appropriate information is reported to the examinee. Notify Examinee that time compression may be used for activities performed outside of the Control Room. Notify Examinee if JPM is Time Critical (only if JPM is **NOT** Alternate Path.)

Critical Steps:

Critical Tasks are identified by asterisk (*) and **bolded** steps on the cover sheet. Verify that the latest revision of the procedure is used and critical tasks are correctly identified.

JOB PERFORMANCE MEASURE

JPM Title Start up Fuel Pool Ventilation Exhaust Radiation Monitor D11- K609A	No.: JP-OP-315-0150-001 Revision: 2 Page 4
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FOLLOW-UP DOCUMENTATION QUESTIONS

Reason for follow-up question(s):

Question:

Reference:

Response:

Question:

Reference

Response:

JOB PERFORMANCE MEASURE

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Simulator Setup

IC#:

N/A

Malfunctions:

Number	Title	Value	Delay	Ramp
N/A				

Remote Functions:

Number	Title	Value	Delay	Ramp
N/A				

Override Functions:

Number	Title	Value	Delay	Ramp
N/A				

Special Instructions:

N/A

Cue Sheet: (JP-OP-315-0150-001)

Initial Conditions:

- You are the Patrol NSO.
- Maintenance was performed on Fuel Pool Vent Exhaust Radiation Monitor D11-K609A. Maintenance is complete.

Initiating Cue(s):

- The CRS directs you to place Div I Fuel Pool Ventilation Exhaust Radiation Monitor D11-K609A in service in accordance with 23.625.
- All prerequisites are complete.