
Job Performance Measure
Worksheet

Facility: Pilgrim

Task No: 261-02-01-003

Task Title: Monthly load test/Start and load EDG

JPM No: 1

K/A Reference: 264000A404 3.7/3.7

Position: RO/SRO

Examinee: _____

NRC Examiner: _____

Date: _____

Method of testing:

Simulated Performance _____

Actual Performance ✓

Classroom _____

Simulator ✓ Plant _____

READ TO THE EXAMINEE:

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

Initial Conditions: Monthly surveillance of the "A" Emergency Diesel Generator is scheduled; preparations are complete for performance. The local prestart is complete. Communications have been established with an operator in the "A" EDG room.

Task Standard: Manually start and load an Emergency Diesel Generator IAW PNPS 8.9.1. There shall be no failure of critical elements. Critical steps must be performed in order. Other steps may be performed out of order.

Required Materials: Key to the EDG "A" Test Switch

General References: PNPS 8.9.1

Initiating Cue: "[Operator's Name], perform the monthly surveillance of the "A" Emergency Diesel Generator IAW PNPS 8.9.1."

Time Critical Task: NO

Validation Time: 15 minutes

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

Performance Step 1: Review the applicable section of the procedure.

Standard: Operator reviews precautions, limitations, and Attachment 1 of PNPS 8.9.1.

Comment: All critical steps must be performed in the order written unless otherwise noted. All components are located on the panel C3 in the Control Room unless otherwise noted. Cue the candidates that "All prerequisites are met for starting the 'A' EDG. Begin with step 1.2 of PNPS 8.9.1 Attachment 1."

✓ **Performance Step 2:** Insert key and rotate EDG 'A' test switch clockwise into the TEST position.

Standard: Green light off, amber light on.

Comment:

✓ **Performance Step 3:** Rotate EDG 'A' Governor Mode Selector Switch clockwise to "DROOP".

Standard: Green light off, red light on.

Comment:

Performance Step 4: Verify EDG 'A' voltage regulator mode selector switch is in "AUTO".

Standard: Switch in "AUTO".

Comment:

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

✓ **Performance Step 5:** NOTIFY the operator at the diesel to perform Section 1.3 of Attachment 1 (Local Diesel Start).

Standard: a) Operator uses Gaitronics System to notify operator at 'A' Diesel Generator Room to perform 1.3 of Attachment 1 (local EDG start).

b) Operator uses Gaitronics system to notify operator at 'A' Diesel Generator Room to start EDG 'A' and time the start up.

Comment: a) Cue candidate that: "Attachment 1 section 1.3 is complete through step 12; ready to load the diesel".

b) Simulator operator must start the 'A' EDG.

Note: Annunciator EDG "A" sys trouble must be reset by Booth Operator.

Performance Step 6: Record diesel VOLTAGE and FREQUENCY as indicated on Panel C3.

Standard: Time, Voltage & frequency recorded.

Comment:

Performance Step 7: Rotate EDG 'A' voltage regulator setpoint adjuster clockwise momentarily to increase voltage by 100v.

Standard: Voltage meter increases by approx. 100v (vertical C-3).

Comment:

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

Performance Step 8: Rotate EDG 'A' voltage regulator setpoint adjuster counterclockwise momentarily to lower voltage by 200v.

Standard: Voltage meter decreases by 200v (vertical C3).

Comment:

✓ **Performance Step 9:** Insert key and rotate the synch switch clockwise to the "ON" position.

Standard: Synch switch is in "ON" position, lights are on, and needle is rotating.

Comment:

Performance Step 10: Set incoming voltage slightly above running.

Standard: Incoming voltage slightly above running.

Comment: This may be required to be re-performed after adjusting speed.

Performance Step 11: Rotate the EDG 'A' Governor Speed Control Switch clockwise until freq. increases by one hertz.

Standard: Frequency Meter (vertical C3) increases by 1Hz.

Comment:

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

_____ **Performance Step 12:** Rotate the EDG 'A' Governor Speed Control Switch counterclockwise until freq. decreases by two hertz.

Standard: Frequency Meter (Vertical C3) decreases by 2 Hz.

Comment:

_____ **Performance Step 13:** Rotate EDG 'A' Governor Speed Control clockwise to produce a slow rotation in the fast direction.

Standard: Synchroscope is rotating slowly clockwise.

Comment:

✓ _____ **Performance Step 14:** Rotate control switch for breaker A509 EDG 'A' to Bus A5 clockwise to synch the diesel on bus.

Standard: Bus is paralleled at approx. 5 degrees before in phase indication on synchroscope.

Comment:

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

✓ **Performance Step 15:** Rotate EDG 'A' Governor Speed Control Switch clockwise to increase load to 500 KW.

Standard: EDG 'A' power meter, Vertical C3, indicates approximately 500 KW.

Comment: After 500 KW load is achieved, load oscillation should be inserted.
(Booth operator manually oscillates load \pm 250 KW.)

✓ **Performance Step 16:** Recognizes that load is oscillating.

Standard: CRS informed of load oscillations.

Comment: If asked what actions to take, respond as CRS, that the operator should follow his station procedure.

Performance Step 17: Rotates EDG 'A' Voltage regulator setpoint adjustor switch counterclockwise to lower reactive load to 0 KVAR.

Standard: Zero KVAR is indicated on Vertical C3.

Comment: Depending on how severe the candidate judges the oscillations to be, he may open the EDG "A" breaker without performing this step.

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

_____ **Performance Step 18:** Rotate EDG 'A' Governor Speed Control Switch to lower load to 100 KW.

Standard: EDG A power meter, Vertical C3, indicates 50-150KW.

Comment: Depending on how severe the candidate judges the oscillations to be, he may open the EDG "A" breaker without performing this step.

✓ _____ **Performance Step 19:** Operator rotates Control Switch for breaker A509 EDG 'A' to Bus A-5 counterclockwise to remove EDG 'A' from Bus A-5

Standard: A509 breaker has green light on red light off.

Comment:

Terminating Cue: After the 'A' EDG is removed from Bus A-5 inform the candidate that the JPM is complete.

VERIFICATION OF COMPLETION

JPM No.: _____

Examinee's Name: _____

Examiner's Name: _____

Date performed: _____

Number of attempts: _____

Time to complete: _____

Question Documentation:

Question: _____

Response: _____

Result: **SAT** or **UNSAT**

Examiner's signature and date: _____

Job Performance Measure
Quality Checklist

Every JPM should:

1. Be supported by facility licensee's job task analysis.
2. Be operationally important (meets NRC K/A Catalog threshold criterion of 2.5 (3 for requalification exams) or as determined by the facility and agreed to by the NRC).
3. Be designed as either SRO only, RO/SRO or AO/RO/SRO.
4. Include the following, as applicable:
 - a. Initial conditions
 - b. Initiating cues
 - c. References and tools, including associated procedures
 - d. Validated time limits (average time allowed for completion) and specific designation of those JPMs that are deemed to be time-critical by the facility operations department
 - e. Specific performance criteria that include:
 - (1) Expected actions with exact control and indication nomenclature and criteria (switch position, meter reading), even if these criteria are not specified in the procedural step
 - (2) System response and other cues that are complete and correct so that the examiner can properly cue the examinee, if asked
 - (3) Statements describing important observations that should be made by the examinee
 - (4) Criteria for successful completion of the task
 - (5) Identification of those steps that are considered critical
 - (6) Restrictions on the sequence of steps

Job Performance Measure
Worksheet

Facility: Pilgrim

Task No: 204-01-01-002

Task Title: Establish RWCU Reject to Main
Condenser During Plant Startup

JPM No: 2

K/A Reference: 204000A403 3.2/3.1

Position: RO/SRO

Examinee: _____

NRC Examiner: _____

Date: _____

Method of testing:

Simulated Performance _____

Actual Performance ✓

Classroom _____

Simulator ✓ Plant _____

Read to the Examinee:

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

Initial Conditions: Preparations for plant startup are being made. CRD has just been started and reactor water level is at 45-50" and is increasing due to CRD cooling water.

Task Standard: The system shall be operated in accordance with all applicable precautions and limitations. The system procedure shall be followed without failure of critical elements. Critical steps must be performed in order. Other steps may be performed out of order.

Required Materials: None.

General References: PNPS 2.2.83

Initiating Cue: "[Operator's name], establish RWCU reject flow to the main condenser and establish 60 GPM reject flow rate".

Time Critical Task: NO

Validation Time: 10 minutes

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

_____ **Performance Step 1:** Review the applicable sections of the procedure.

Standard: Operator reviews Precautions and Limitations and Section 7.3.1 of PNPS 2.2.83.

Comment:

Performance Step 2: Open MO-1201-78, Reject to Condenser Block Valve.

Standard: MO-1201-78, Control Switch (C904), rotated clockwise to fully open valve. Red light on/green light off.

Comment: If asked as CRS, inform candidate the MO-1201-78 should be fully opened.

_____ **Performance Step 3:** Slowly open CV-1239, Reject Flow Control Valve, to establish desired flow rate.

Standard: Knob for CV-1239 (C904 vertical) rotated clockwise until FI-1290-11 (C904 vertical) reads approximately 60 GPM.

Comment:

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

Performance Step 4: Monitor non-regenerative heat exchanger outlet temperature while increasing reject flow.

Standard: T/SS-1290-28 (904 vertical) placed in position 3. TI-1290-21 (904 vertical) monitored.

Comment:

✓ **Performance Step 5:** Reduce RWCU flow as required to maintain non-regenerative heat exchanger outlet temperature less than 130°F by any of the following methods:

- Throttle closed MO-1201-80, Return Isolation Valve
- Throttle closed FV-1279-15A and FV-1279-15B
- Throttle closed CV-1239, Reject Flow Control Valve

Standard: Flow controlled such that TI-1290-21 (C904 vertical) is less than 130°F.

Comment: Critical portion is maintaining flow such that non-regenerative level exchanger outlet temperature is less than 130°F.

✓ **Performance Step 6:** Slowly open CV-1239, Reject Control Valve to establish desired reject flow rate.

Standard: Control knob for CV-12398 (C904 vertical) and adjust such that FI-1290-11 (C904 vertical) reads approximately 60 GPM.

Comment:

Terminating Cue: Cue the Candidate that this concludes the JPM

VERIFICATION OF COMPLETION

JPM No.: _____

Examinee's Name: _____

Examiner's Name: _____

Date performed: _____

Number of attempts: _____

Time to complete: _____

Question Documentation:

Question: _____

Response: _____

Result: **SAT** or **UNSAT**

Examiner's signature and date: _____

Job Performance Measure
Quality Checklist

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 - (3) Statements describing important observations that should be made by the examinee
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 - (6) Restrictions on the sequence of steps

Job Performance Measure
Worksheet

Facility: Pilgrim

Task No: 241-01-01-028

Task Title: Transfer From the EPR to the MPR

JPM No: 3

K/A Reference: 241000A103 3.9/3.8

Position: RO/SRO

Examinee: _____

NRC Examiner: _____

Date: _____

Method of testing:

Simulated Performance _____

Actual Performance ✓

Classroom _____

Simulator ✓ Plant _____

Read to the Examinee:

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

Initial Conditions:

- You are the ATC operator.
- The plant is operating at approximately 50% power.
- Plant pressure control is currently on the EPR.
- The MPR must be placed in service to facilitate a short vendor inspection of the EPR.
- Another operator is standing by to tag the EPR as soon as it is removed from service.
- Reactor Engineering has performed an evaluation that allows operation for 24 hours with the EPR out of service.

Task Standard: The system shall be operated in accordance with all applicable precautions and limitations. The system procedure and the immediate actions of the off-normal procedure shall be followed without failure of critical elements. Critical steps must be performed in order. Other steps may be performed out of sequence.

Required Materials: Tagout for EPR, Spare operator to control Reactor Water Level post scram

General References: PNPS 2.2.99, PNPS 2.4.37, PNPS 2.1.6

Job Performance Measure
Worksheet

Initiating Cue: “[Operator’s name], you are to remove the EPR from service in accordance with procedure 2.2.99 and then stand by to place the EPR back in service once the inspection is complete.”

Time Critical Task: NO

Validation Time: 15 Minutes

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

Performance Step 1: Review the applicable sections of the procedure.

Standard: Operator reviews Precautions and Limitations and Section 7.4.2 of PNPS 2.2.99. Operator may also review 2.4.37, "Turbine Control Systems Malfunctions".

Comment: All components are located in control room panel C-2 horizontal section unless otherwise noted.

✓ **Performance Step 2:** Place the MPR setpoint control switch to "LOWER" to adjust to a setpoint slightly below the EPR setpoint, per ZI-3021 and ZI-3013.

Standard: Operator rotates the "MPR SETPT" control switch to the "LOWER" position until the "MPR SETPOINT" (ZI-3021) indication is below the "EPR SETPOINT" (ZI-3013) indication.

Comment:

Performance Step 3: Verify that the MPR has taken control by response of regulator instruments, steam pressure and MPR setpoint pressure control red light.

Standard: Operator observes that "MPR CONTROL POSITION" (ZI-3020) indicator rises and "EPR CONTROL POSITION" (ZI-3014) drops off to minimum. Operator looks at PR- 3050 (or other reactor/main steam pressure) and observes a slight decrease in main steam pressure. MPR red light on; EPR green light on.

Note: Simulator operator should:

- 1) Tag the EPR.
- 2) Tell the candidate via CRS that work has begun.
- 3) Insert pressure oscillations.

Comment:

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

✓ **Performance Dtep 4:** Operator identifies that RPV pressure is oscillating.

Standard: Operator observes ZI-3020 pointer oscillating or observes reactor pressure indication is oscillating.

Comment:

Performance Step 5: Operator observes APRM's or asks another operator to do so, and determines that reactor power is less than 90%.

Standard: Operator looks at the APRM recorders on 905 panel, or asks another operator to do so.

Comment: Reactor power was turned over as being at 50%.

Performance Step 6: Operator rotates the MPR switch to the lower position to take control with the MPR.

Standard: MPR red light on, green light off.

Comment: This step may be omitted since the MPR is already in control.

Performance Step 7: Operator rotates the MPR switch to the raise position to allow the EPR to take control.

Standard: MPR red light off, green light on.

Comment: Not performed since the EPR is tagged off.

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

Performance Step 8: Operator determines that pressure oscillations are still occurring.

Standard: Operator notifies CRS that pressure is still oscillating.

Comment: If the operator does not recommend scrambling the reactor when he reports oscillations are continuing, ask him what action is dictated by procedure.

Performance Step 9: Operator manually scrams the reactor.

Standard: Mode switch on C-905 is in shutdown.

Comment: The candidate should be cued at this point by the examiner, acting as the CRS to scram the reactor and carry out PNPS 2.1.6 and another operator will control reactor water level.

Performance Step 10: Verify and announce status of APRM downscapes.

Standard: APRM downscapes (C905 Apron Section) are verified and announcement is made.

Comment:

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

Performance Step 11: Verify all control rods inserted.

Standard: Operator verifies all rods in by one of the following:

- By observing the "FULL IN" green indicators on the full core display.
- By placing the Reactor Mode Switch in "REFUEL" position, turning the rod power select switch to the "OFF" position and then back to the "ON" position, and then observing the "REFUEL PERMISSIVE" white light illuminated.
- By observing individual control rod position by selecting each control rod on the rod select matrix and observing control rod position on the four rod display.
- By observing the control rod position print out by depressing the F9 key on 3D Monicore Graphics mode.
- By observing control rod position displayed on the Control Room CRT from the "ROD POSITION" function of the EPIC program (format #500).
- By observing that the "ALL RODS IN" value for EPIC computer point "CALLRODS" is "YES".

Comment:

Performance Step 12: Insert IRM and SRM detectors. Select two SRMs for recording and place APRM/IRM selector switch to IRM.

- Standard:**
1. All SRMs and IRMs selected
 2. SRM/IRM insert switch depressed
 3. SRM selector switch to A or C and B or D
 4. Eight APRM/IRM/RBM selector switches to IRM

Comment: Controls are on C-905.

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

Performance Step 13: Verify or manually place reactor recirc pumps at minimum speed.

Standard: Individual recirc flow controllers on C-904 verified at approximately 26%.

Comment:

Performance Step 14: Verify or manually trip the turbine.

Standard: Operator verifies by stop valve position on C-2 (or other means) that the turbine is tripped.

Comment:

Terminating Cue: When the operator has completed the immediate action steps of 2.1.6, inform that the JPM is complete.

VERIFICATION OF COMPLETION

JPM No.: _____

Examinee's Name: _____

Examiner's Name: _____

Date performed: _____

Number of attempts: _____

Time to complete: _____

Question Documentation:

Question: _____

Response: _____

Result: **SAT** or **UNSAT**

Examiner's signature and date: _____

Job Performance Measure
Quality Checklist

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Job Performance Measure
Worksheet

Facility: Pilgrim

Task No: 200-05-04-072

Task Title: Cross-tie Fire Water with RHR

JPM No: 4

K/A Reference: 295031A108 3.8/3.8

Position: RO/SRO

Examinee: _____

NRC Examiner: _____

Date: _____

Method of testing:

Simulated Performance _____

Actual Performance ✓

Classroom _____

Simulator ✓ Plant _____

Read to the Examinee:

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

Initial Conditions: Due to a large LOCA, the need exists to cross-tie Fire Water to RHR. PNPS 5.3.26 is complete through Step 2.1[1](a)(4).

Task Standard: The Fire Water System is lined up to the RHR System in accordance with PNPS 5.3.26. The procedure shall be followed without failure of any critical elements. Critical steps must be performed in order. Other tasks may be performed out of sequence.

Required Materials: Locked valve key (for 1001-53 valve).

General References: 5.3.26

Initiating Cue: "[State the operator's name], you are to continue lining up to cross-tie Fire Water with RHR leaving the 'B' RHR loop isolated. Inform the control room when ready to start the motor driven fire water pump".

Time Critical Task: NO

Validation Time: 20 minutes

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

_____ **Performance Step 1:** Review the applicable sections of the procedure.

Standard: Procedure PNPS 5.3.26 reviewed.

Comment:

_____ **Performance Step 2:** Obtain locked valve key for 1001-53.

Standard: Locked valve key in operators possession. Key may be obtained from Control Room Annex.

Comment:

_____ **Performance Step 3:** Locate valve 1-DR-121 and simulate checking valve closed.

Standard: Operator locates 1-DR-121, and simulates taking the valve handwheel in the closed direction.

Comment: 1-DR-121 is located approximately 3' South of the West corner of MCC-B15. Cue the candidates that the handwheel will not move in the clockwise direction.

_____ **Performance Step 4:** Locates, remove the locking tie wrap, and simulate closing valve 10-HO-516.

Standard: Operator locates valve 10-HO-516, simulates removing the tie wrap, and closes the valve.

Comment: Cue the candidate that the tie wrap is removed and the valve is rotating in the clockwise direction. The valve stops and will not move any further in the clockwise direction.

Note: 10-HO-516 and 10-HO-517 are located adjacent to valve 1-DR-121.

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

_____ **Performance Step 5:** Locates, remove the locking tie wrap, and simulate closing valve 10-HO-517.

Standard: Operator locates valve 10-HO-517, simulates removing the tie wrap, and closes the valve.

Comment: Cue the candidate that the tie wrap is removed and the valve is rotating in the clockwise direction. The valve stops and will not move any further in the clockwise direction.

✓ _____ **Performance Step 6:** Locate, remove the locking tie wrap, and simulate opening valve 10-HO-511.

Standard: Operator locates valve 10-HO-511, simulates removing the tie wrap, and using the installed chain operator, opens the valve.

Comment: Cue the candidate that the tie wrap is removed and the chain is pulled, causing the valve to rotate in the counterclockwise direction. The chain stops and will not move any further. The valve stem is fully extended from the valve. 10-HO-511 is located slightly south and 5' above MCC-B15.

✓ _____ **Performance Step 7:** Locates, remove the locking tie wrap, and simulate opening valve 8-I-56.

Standard: Operator locates valve 8-I-56, simulates removing the tie wrap, and using the installed chain operator, opens the valve.

Comment: Cue the candidate that the tie wrap is removed and the chain is pulled, causing the valve to rotate in the counterclockwise direction. The chain stops and will not move any further. The valve stem is fully extended from the valve. 8-I-56 is located above the RHR/Fire Water spool piece on the 23' level of the Aux Bay.

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

✓ **Performance Step 8:** Locate, remove the locking tie wrap, and simulate opening valve 3-I-57.

Standard: Operator locates valve 3-I-57, simulates removing the tie wrap, and using the installed chain operator, opens the valve.

Comment: Cue the candidate that the tie wrap is removed and the chain is pulled, causing the valve to rotate in the counterclockwise direction. The chain stops and will not move any further. The valve stem is fully extended from the valve. 3-I-57 is located below valve 8I-56.

_____ **Performance Step 9:** Locates and simulate opening valve ¾-TT-103.

Standard: Operator locates valve ¾-TT-103, and simulates opening the valve.

Comment: Cue the candidate that the valve handwheel is moving in the counterclockwise direction, and then stops. ¾-TT-103 is located above the spool piece.

_____ **Performance Step 10:** Locate and simulate opening valve ¾-RT-5.

Standard: Operator locates valve ¾-RT-5, and simulates opening the valve.

Comment: Cue the candidate that the valve handwheel is moving in the counterclockwise direction, and then stops. ¾-RT-5 is located adjacent to ¾-TT-103.

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

✓

Performance step 11: Locate and simulate closing HO-1001-53, RHR Manual Cross-tie Valve.

Standard: Operator locates HO-1001-53, simulates unlocking the handwheel and closing the valve.

Comment: Cue the candidate that the lock is removed, the valve handwheel is moving in the clockwise direction, and then stops. The RHR/Fire Water System is now aligned for fire pump start. The operator should inform you that the JPM is complete.

Terminating Cue: This completes the JPM

VERIFICATION OF COMPLETION

JPM No.: _____

Examinee's Name: _____

Examiner's Name: _____

Date performed: _____

Number of attempts: _____

Time to complete: _____

Question Documentation:

Question: _____

Response: _____

Result: **SAT** or **UNSAT**

Examiner's signature and date: _____

Job Performance Measure
Quality Checklist

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 - (6) Restrictions on the sequence of steps

Job Performance Measure
Worksheet

Facility: Pilgrim

Task No: 212-01-04-003

Task Title: Transfer RPS 'B' to Alternate Power
and Secure 'B' RPS MG Set

JPM No: 5

K/A Reference: 212000A201 3.7/3.9

Position: RO/SRO

Examinee: _____

NRC Examiner: _____

Date: _____

Method of testing:

Simulated Performance _____

Actual Performance ✓

Classroom _____

Simulator ✓ Plant _____

Read to the Examinee:

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

Initial Conditions: Plant conditions are as follows:

- The 'B' RPS MG set requires repairs.
- The alternate power supply is available for use. EPA #6 circuit breaker is closed.
- "POWER OUT" light is energized on EPA #6.

Task Standard: 'B' RPS bus transferred to alternate power supply and 'B' RPS MG set secured. The RPS system shall be operated in accordance with all applicable system precautions and limitations. The system procedure shall be followed without failure of critical elements. Critical steps must be performed in order. Other steps may be performed out of sequence.

Required Materials: Electrical switchgear key (CR-50)

General References: PNPS 2.2.79

Initiating Cue: "[Operator's name], utilizing this copy of PNPS procedure 2.2.79, transfer RPS bus 'B' to the alternate power supply and secure the 'B' RPS MG set.

Time Critical Task: NO

Validation Time: 10 minutes

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

Performance Step 1: Review the applicable sections of the procedure.

Standard: Precautions, limitations and section 7.1.5 of PNPS 2.2.79.

Comment:

✓ **Performance Step 2:** Unlock cabinet C511 with electrical switchgear key.

Standard: Operator locates correct cabinet and unlocks.

Comment:

✓ **Performance Step 3:** Push "B Generator Feed" breaker down to the "OFF" position.

Standard: Operator locates correct breaker and motions in the proper direction.

Comment: Cue the candidate that, "You hear a click and the breaker is in the down position."

✓ **Performance Step 4:** Push "B2 ALTERNATE FEED TO BUS B" breaker up to the "ON" position.

Standard: Operator locates correct breaker and motions in the proper direction.

Comment: Cue the candidate that, "You hear a click and the breaker is in the up position."

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)



Performance Step 5: Push EPA #4 circuit breaker down to the "OFF" position.

Standard: Operator locates correct breaker and motions in the proper direction.

Comment: Cue the candidate that, "You hear a click and the breaker is in the down position."



Performance Step 6: Push EPA #3 circuit breaker down to the "OFF" position.

Standard: Operator locates correct breaker and motions in the proper direction.

Comment: Cue the candidate that, "You hear a click and the breaker is in the down position."



Performance Step 7: Push MG set B Output breaker down to the "OFF" position.

Standard: Operator locates correct breaker and motions in the proper direction.

Comment: Cue the candidate that, "You hear a click and the breaker is in the down position."

PERFORMANCE INFORMATION

(Critical steps denoted with a check mark)

✓ **Performance Step 8:** Push and hold STOP pushbutton until:

- 1) Red "Motor ON" light on panel E22 is de-energized and
- 2) Green "Motor OFF" light on panel E22 is energized and
- 3) Both white generator lights on panel E22 are de-energized

Standard: Candidate locates and depresses the STOP pushbutton until:

- 1) Red "Motor ON" light on panel E22 is de-energized and
- 2) Green "Motor OFF" light on panel E22 is energized and
- 3) Both white generator lights on panel E22 are de-energized

Comment: After STOP pushbutton is depressed wait 10 seconds and cue the candidate that:

- 1) Red "Motor ON" light on panel E22 is de-energized and
- 2) Green "Motor OFF" light on panel E22 is energized and
- 3) Both white generator lights on panel E22 are de-energized

Terminating Cue: Candidate then informs CRS that task is complete.

VERIFICATION OF COMPLETION

JPM No.: _____

Examinee's Name: _____

Examiner's Name: _____

Date performed: _____

Number of attempts: _____

Time to complete: _____

Question Documentation:

Question: _____

Response: _____

Result: **SAT** or **UNSAT**

Examiner's signature and date: _____

Job Performance Measure
Quality Checklist

Every JPM should:

1. Be supported by facility licensee's job task analysis.
2. Be operationally important (meets NRC K/A Catalog threshold criterion of 2.5 (3 for requalification exams) or as determined by the facility and agreed to by the NRC).
3. Be designed as either SRO only, RO/SRO or AO/RO/SRO.
4. Include the following, as applicable:
 - a. Initial conditions
 - b. Initiating cues
 - c. References and tools, including associated procedures
 - d. Validated time limits (average time allowed for completion) and specific designation of those JPMs that are deemed to be time-critical by the facility operations department
 - e. Specific performance criteria that include:
 - (1) Expected actions with exact control and indication nomenclature and criteria (switch position, meter reading), even if these criteria are not specified in the procedural step
 - (2) System response and other cues that are complete and correct so that the examiner can properly cue the examinee, if asked
 - (3) Statements describing important observations that should be made by the examinee
 - (4) Criteria for successful completion of the task
 - (5) Identification of those steps that are considered critical
 - (6) Restrictions on the sequence of steps