

# Exelon Nuclear

## Job Performance Measure

VERIFY ISO CONDENSER QUARTERLY MAKEUP TEST

JPM Number: A-N-1-R

Revision Number: 03

Date: 09/08

Developed By: \_\_\_\_\_  
Instructor Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

**Revision 02** Bank JPM.

**Revision 03** Revised for 2009 NRC Exam.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

1. This is a tabletop JPM utilizing simulator procedures.
2. No Simulator setup needed.

### **DOCUMENT PREPARATION**

1. Markup a copy of DOS 1300-03.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. You are the Unit 2 Aux NSO.
2. DOS 1300-03 was performed last shift, for running of the 2/3A Iso Condenser Makeup Pump Quarterly Operability, for the current calendar quarter.
3. Lube and Fuel oil samples were NOT required.
4. The NLO reported all surveillance requirements were within specifications.

### **INITIATING CUE**

1. The Unit Supervisor has directed you to verify all requirements are within specifications, and paperwork is correct.
2. Inform the Unit Supervisor when the task is complete.

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**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.
- Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

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## Job Performance Measure (JPM)

JPM Start Time: \_\_\_\_\_

| PERFORMANCE CHECKLIST                                       | STANDARDS  | SAT   | UNSAT | Comment |
|---|--|---|-------|---------|
| <b><u>NOTE:</u></b>   |  |   |       |         |
| Provide the examinee with the provided copy of DOS 1300-03. |  |   |       |         |
| *   | 1. Student should identify step I.1 (DC VOLTS) is not $\geq$ 25.5 volts and step I.2 should NOT have been initialed. | Identifies incorrect voltage of 24.5 (correct voltage should be $\geq$ 25.5 volts ).          | _____ | _____   |
| *   | 2. Student should identify step I.2.a should NOT be N/A'd and indicate that EMD should have been notified.           | Informs examiner that EMD is required to be notified (may make notification at end of JPM).   | _____ | _____   |
| *   | 3. Student should identify step I.18.c (elapsed time) is not correct, because the engine was NOT run for 30 minutes. | Identifies incorrect time of 26 min (correct elapsed time should be a minimum of 30 minutes). | _____ | _____   |
| *   | 4. Student should identify step I.24.b is N/A'd (Damper Control Switch NOT in AUTO).                                 | Identifies incorrect N/A'd step.  | _____ | _____   |
|   | 5. Notify Unit Supervisor of discrepancies.  | Notifies Unit Supervisor, to verify/correct issues.   | _____ | _____   |
| <b><u>CUE:</u></b>  |  |   |       |         |
| Acknowledge report of task completion.                      |  |   |       |         |
|   |  | END   |       |         |

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_

Job Title: RO

JPM Title: VERIFY ISO CONDENSER QUARTERLY MAKEUP TEST

Revision Number: 03

JPM Number: A-N-1-R

Task Number and Title: 299L080 Perform the administrative duties for conduct of surveillance, special, or complex procedures.

K/A Number and Importance: Generic.2.1.7 4.4 / 4.7

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:**  Simulator  Control Room  In-Plant

**Testing Method:**  Simulate  Perform  
Alternate Path:  Yes  No  
SRO Only:  Yes  No

**Time Critical:**  Yes  No

**Estimated Time to Complete:** 10 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** DOS 1300-03, rev 17

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluator's Name (Print): \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. You are the Unit 2 Aux NSO.
2. DOS 1300-03 was performed last shift, for running of the 2/3A Iso Condenser Makeup Pump Quarterly Operability, for the current calendar quarter.
3. Lube and Fuel oil samples were NOT required.
4. The NLO reported all surveillance requirements were within specifications.

### **INITIATING CUE**

1. The Unit Supervisor has directed you to verify all requirements are within specifications, and paperwork is correct.
2. Inform the Unit Supervisor when the task is complete.

**Exelon Nuclear**

**Job Performance Measure**

REACTIVATION OF AN SRO LICENSE

JPM Number: A-N-1-S

Revision Number: 02

Date: 09/08

Developed By: \_\_\_\_\_  
Instructor Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

**Revision 01** Bank JPM.

**Revision 02** Revised for 2009 NRC Exam.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

1. This is a tabletop JPM utilizing simulator procedures.
2. No Simulator setup needed.

### **DOCUMENT PREPARATION**

1. Marked up copy of OP-AA-105-102.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. You are the Shift Manager.
2. An SRO is in the process of license reactivation.
3. OP-AA-105-102, Attachment 2, Reactivation of License Log, is filled out up to the point of Shift Manager review for the licensee.

### **INITIATING CUE**

1. The Shift Operation Superintendent directs you to “perform the Shift Manager review of OP-AA-105-102, Attachment 2 for the licensee and return it to me”.

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**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.
- Denotes critical elements of a critical step.

Number any comments in the “Comment Number” column on the following pages. Then annotate that comment in the “Comments” section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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The timeclock starts when the candidate acknowledges the initiating cue.

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## Job Performance Measure (JPM)

JPM Start Time: \_\_\_\_\_

| PERFORMANCE CHECKLIST  | STANDARDS  | SAT  | UNSAT | Comment |
|--|--|--|-------|---------|
| <b><u>NOTE:</u></b>  |  |  |       |         |
| Provide the Examinee the provided marked up copy of OP-AA-105-102. |  |  |       |         |
| 1.   | Review OP-AA-105-102, Attachment 2.  | Reviews OP-AA-105-102, Attachment 2.   | _____ | _____   |
| *  | 2. Check that Hours on Shift are applicable for license reactivation.          | Notes that 8 hours listed in the Hours on Shift are for WEC Supervisor which does not count toward the 40 hours required.  | _____ | _____   |
| *  | 3. Check that licensee has the required 40 hours.                              | Determines that licensee has ONLY 32 hours toward the required 40 hours.   | _____ | _____   |
| 4.   | Report the results of the review to the Shift Operations Superintendent (SOS). | Returns without signing OP-AA-105-102, Attachment 2 to the SOS.<br><br>Informs the SOS that the licensee's license CANNOT be reactivated due to insufficient hours on shift. | _____ | _____   |
| <b><u>CUE:</u></b>   |  |  |       |         |
| As the SOS, acknowledge the report.                                |  |  |       |         |
|  |  | END  |       |         |

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_

Job Title: SRO

JPM Title: REACTIVATION OF AN SRO LICENSE

Revision Number: 02

JPM Number: A-N-1-S

Task Number and Title: Title: 299L024, Maintain an Active License

K/A Number and Importance: Generic.2.1.4 3.3 / 3.8

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:**  Simulator  Control Room  In-Plant

**Testing Method:**  Simulate  Perform  
Alternate Path:  Yes  No  
SRO Only:  Yes  No

**Time Critical:**  Yes  No

**Estimated Time to Complete:** 12 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** OP-AA-105-102, rev 09

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluator's Name (Print): \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. You are the Shift Manager.
2. An SRO is in the process of license reactivation.
3. OP-AA-105-102, Attachment 2, Reactivation of License Log, is filled out up to the point of Shift Manager review for the licensee.

### **INITIATING CUE**

1. The Shift Operation Superintendent directs you to “perform the Shift Manager review of OP-AA-105-102, Attachment 2 for the licensee and return it to me”.

# Exelon Nuclear

## Job Performance Measure

VERIFY STANDBY LIQUID CONTROL HEATER SURVEILLANCE

JPM Number: A-N-2-R

Revision Number: 00

Date: 09/08

Developed By: \_\_\_\_\_  
Instructor Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

**Revision 00** New JPM developed for 2009 NRC Exam.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

1. This is a tabletop JPM utilizing simulator procedures.
2. No Simulator setup needed.

### **DOCUMENT PREPARATION**

1. Markup a copy of DOS 1100-02.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. You are the Unit 2 Aux NSO.
2. DOS 1100-02 was performed last shift.
3. The NLO reported all surveillance requirements were within specifications.

### **INITIATING CUE**

1. The Unit Supervisor has directed you to verify all requirements are within specifications, and paperwork is correct.
2. Inform the Unit Supervisor when the task is complete.

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**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.
- Denotes critical elements of a critical step.

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The timeclock starts when the candidate acknowledges the initiating cue.  
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## Job Performance Measure (JPM)

JPM Start Time: \_\_\_\_\_

| PERFORMANCE CHECKLIST                                       | STANDARDS  | SAT  | UNSAT | Comment |
|---|--|--|-------|---------|
| <b><u>NOTE:</u></b>   |  |  |       |         |
| Provide the examinee with the provided copy of DOS 1100-02. |  |  |       |         |
| *   | 1. Student should identify step I.3 SBLC SUCTION TEMP is NOT $\geq$ 83°F should NOT have been initialed. | Identifies incorrect SBLC SUCTION TEMP of 81°F (correct temp should be $\geq$ 83°F). | _____ | _____   |
| *   | 2. Student should identify step I.4 should NOT have been initialed.                                      | Identifies that step should NOT have been initialed.                                 | _____ | _____   |
| *   | 3. Student should identify step I.9.g should NOT have been N/A'd.  | Identifies that step should NOT have been N/A'd.                                     | _____ | _____   |
|   | 4. Notify Unit Supervisor of discrepancies.  | Notifies Unit Supervisor, to verify/correct issues.                                  | _____ | _____   |
| <b><u>CUE:</u></b>  |  |  |       |         |
| Acknowledge report of task completion.                      |  |  |       |         |
|   |  | END  |       |         |

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_

Job Title: RO

JPM Title: VERIFY STANDBY LIQUID CONTROL HEATER SURVEILLANCE

Revision Number: 00

JPM Number: A-N-2-R

Task Number and Title: 299L080 Perform the administrative duties for conduct of surveillance, special, or complex procedures.

K/A Number and Importance: Generic.2.1.18 3.6 / 3.8

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:**  Simulator  Control Room  In-Plant

**Testing Method:**  Simulate  Perform  
Alternate Path:  Yes  No  
SRO Only:  Yes  No

**Time Critical:**  Yes  No

**Estimated Time to Complete:** 12 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** DOS 1100-02, rev 16

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluator's Name (Print): \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. You are the Unit 2 Aux NSO.
2. DOS 1100-02 was performed last shift.
3. The NLO reported all surveillance requirements were within specifications.

### **INITIATING CUE**

1. The Unit Supervisor has directed you to verify all requirements are within specifications, and paperwork is correct.
2. Inform the Unit Supervisor when the task is complete.

# Exelon Nuclear

## Job Performance Measure

AUTHORIZE OVERTIME IAW G 82-12 GUIDELINES

JPM Number: A-N-2-S

Revision Number: 01

Date: 09/08

Developed By: \_\_\_\_\_  
Instructor Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

**Revision 00** Bank JPM.

**Revision 01** Revised for 2009 NRC Exam.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

1. This is a tabletop JPM utilizing simulator procedures.
2. No Simulator setup needed.

### **DOCUMENT PREPARATION**

1. Clean copy of LS-AA-119.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. It is Tuesday the 3/10/2009 @ 0800
2. Bob, an NSO has just left the site due to a sudden illness.
3. The only trained and qualified person you are able to contact is Steve Smith, who is on his first regular day off (RDO).
4. Steve is ready and willing to work the overtime and can report for work @ 0900 and will work until 1500.
5. Steve is NOT fatigued, IS mentally alert and FIT FOR DUTY.
6. Steve has worked the following shifts that count towards GL 82012 guidelines so far this week:
  - Wednesday the 4<sup>th</sup>                      16 hours on days and afternoon shift
  - Thursday the 5<sup>th</sup>                        8 hours on days
  - Friday the 6<sup>th</sup>                            16 hours on days and afternoon shift
  - Saturday the 7<sup>th</sup>                        8 hours on days
  - Sunday the 8<sup>th</sup>                          16 hours on days and afternoon shift
  - Monday the 9<sup>th</sup>                         8 hours on days
7. Safety-related work WILL be performed by the NSO during the shift.
8. You are the WEC Supervisor.

### **INITIATING CUE**

1. Determine if you need to authorize Steve Smith to work the overtime in accordance with the applicable procedure and forward the paperwork, if any, to the Shift Manager.

## **Job Performance Measure (JPM)**

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**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.
- Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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The timeclock starts when the candidate acknowledges the initiating cue.

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## Job Performance Measure (JPM)

JPM Start Time: \_\_\_\_\_

| PERFORMANCE CHECKLIST   | STANDARDS  | SAT   | UNSAT   | Comment |
|---|--|---|---|---------|
| <b>NOTE:</b>  |  |   |   |         |
| Shift staffing composition may be less than the minimum requirements for a period of time NOT to exceed two hours in order to accommodate unexpected absence of an on duty staff member provided immediate action is taken to restore the shift staff composition to within the minimum requirements. |  |   |   |         |
| 1.  | Reviews the procedure to determine if any overtime guidelines will be exceeded.                      | Determines that overtime would result in exceeding 72 hours in a 7 day period.  | _____   | _____   |
| 2.  | Reviews the procedure to determine if it allows personnel who will exceed GL 82-12 to work overtime. | Determines that if there are not enough individuals available to fill the required assignments, then trained and qualified individuals who would exceed the overtime guidelines will then be asked to work.                 | _____   | _____   |
| 3.  | Determines need to initiate Attachment 1 of LS-AA 119.   | Determines that prior to an individual performing safety related work while exceeding the GL 82-12 overtime guidelines, the cognizant supervisor shall initiate Attachment 1, "Overtime Guideline Deviation Authorization." | _____   | _____   |
| *   | 4.   | Fills out Attachment 1.   | Completes columns one through four of Attachment 1, filling in:<br><br>(1) = Steve Smith<br>(2) = Operations<br>(3) = D – More than 72 hours in a seven day period.<br>(4) = 0900 / 3-10-09 | _____   |

## Job Performance Measure (JPM)

| PERFORMANCE CHECKLIST |    |   | STANDARDS  | SAT   | UNSAT | Comment |
|-----------------------|----|---|--|-------|-------|---------|
| *                     | 5. | Fills out Attachment 1.                                 | Fills out a description of safety related work to be accomplished. <i>Example: "NSO Shift responsibilities"</i> <b>or something that conveys this.</b> | _____ | _____ | _____   |
| *                     | 6. | Fills out Attachment 1.                                 | Provides justification for needed overtime. <i>Example: "Only qualified person available"</i> <b>or something that conveys this.</b>                   | _____ | _____ | _____   |
|                       | 7. | Forwards Attachment 1 to the cognizant department head. | Forwards Attachment 1 to Plant Manager or designee.  | _____ | _____ | _____   |
|                       |    |   | END  |       |       |         |

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_

Job Title: SRO

JPM Title: AUTHORIZE OVERTIME IAW G 82-12 GUIDELINES

Revision Number: 01

JPM Number: A-N-2-S

Task Number and Title: 299L057, Perform administrative duties to ensure overtime restrictions are not exceeded.

K/A Number and Importance: Generic.2.1.5 2.9 / 3.9

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:**  Simulator  Control Room  In-Plant

**Testing Method:**  Simulate  Perform  
Alternate Path:  Yes  No  
SRO Only:  Yes  No

**Time Critical:**  Yes  No

**Estimated Time to Complete:** 15 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LS-AA-119, rev 07

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluator's Name (Print): \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. It is Tuesday the 3/10/2009 @ 0800
2. Bob, an NSO has just left the site due to a sudden illness.
3. The only trained and qualified person you are able to contact is Steve Smith, who is on his first regular day off (RDO).
4. Steve is ready and willing to work the overtime and can report for work @ 0900 and will work until 1500.
5. Steve is NOT fatigued, IS mentally alert and FIT FOR DUTY.
6. Steve has worked the following shifts that count towards GL 82012 guidelines so far this week:
  - Wednesday the 4<sup>th</sup>                      16 hours on days and afternoon shift
  - Thursday the 5<sup>th</sup>                        8 hours on days
  - Friday the 6<sup>th</sup>                            16 hours on days and afternoon shift
  - Saturday the 7<sup>th</sup>                        8 hours on days
  - Sunday the 8<sup>th</sup>                          16 hours on days and afternoon shift
  - Monday the 9<sup>th</sup>                         8 hours on days
7. Safety-related work WILL be performed by the NSO during the shift.
8. You are the WEC Supervisor.

### **INITIATING CUE**

1. Determine if you need to authorize Steve Smith to work the overtime in accordance with the applicable procedure and forward the paperwork, if any, to the Shift Manager.

# Exelon Nuclear

## Job Performance Measure

CALCULATE FLOWS FOR DRYWELL SUMPS

JPM Number: A-N-3-R

Revision Number: 00

Date: 09/08

Developed By: \_\_\_\_\_

Instructor

\_\_\_\_\_

Date

Approved By: \_\_\_\_\_

Facility Representative

\_\_\_\_\_

Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

**Revision 00** New JPM developed for 2009 NRC Exam.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

1. This is a tabletop JPM utilizing simulator procedures.
2. No Simulator setup needed.

### **DOCUMENT PREPARATION**

1. Clean copy of APPENDIX A, Drywell Floor/Equipment Drain Sump Pumps Flowrate Worksheet.

## Job Performance Measure (JPM)

### INITIAL CONDITIONS

1. You are the Unit 2 NSO.
2. The Unit 2 Floor Drain and Equipment Drain Sumps were pumped by the Aux NSO, with the following data:

|          | PUMP START | PUMP STOP  | STOPWATCH    |
|----------|------------|------------|--------------|
|          | Integrator | Integrator | Elapsed Time |
| 2A DWFDS | 00250      | 00556      | 4 min 15 sec |
| 2B DWFDS | 00382      | 00682      | 4 min 00 sec |
| 2A DWEDS | 00970      | 01236      | 3 min 30 sec |
| 2B DWEDS | 01007      | 01277      | 3 min 45 sec |

### INITIATING CUE

1. The Unit Supervisor has directed you to perform Appendix A, Drywell Floor/Equipment Drain Sump Pumps Flowrate Worksheet, using the data provided above.
2. Another Operator will verify your calculations.
3. Provide the worksheet to the Unit Supervisor when the task is complete.

## **Job Performance Measure (JPM)**

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**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.
- Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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The timeclock starts when the candidate acknowledges the initiating cue.

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## Job Performance Measure (JPM)

JPM Start Time: \_\_\_\_\_

| PERFORMANCE CHECKLIST   | STANDARDS  | SAT      | UNSAT | Comment |
|---|--|----------|-------|---------|
| <p><b><u>NOTE:</u></b></p> <p>Provide the examinee with the provided copy of Appendix A, DRYWELL FLOOR/EQUIPMENT DRAIN SUMP PUMPS FLOW RATE WORKSHEET.</p> <p>Steps one (1) through four (4) may be performed in any order.</p> |  |          |       |         |
| *   | <p>1. For 2A DWFDS calculates total gallons pumped of <b>306</b> (556 – 250) divided by pumping time of <b>255</b> seconds (4 min 15 sec) equals a pump flow rate of <b>72 gpm</b>.</p> <p><math>\frac{(306 \text{ gal}) \times (60 \text{ sec})}{(255 \text{ sec})} = \underline{72} \text{ gpm}</math><br/>( 1 min)</p>  | See Key. | _____ | _____   |
| *   | <p>2. For 2B DWFDS calculates total gallons pumped of <b>300</b> (682 – 382) divided by pumping time of <b>240</b> seconds (4 min 15 sec) equals a pump flow rate of <b>75 gpm</b>.</p> <p><math>\frac{(300 \text{ gal}) \times (60 \text{ sec})}{(240 \text{ sec})} = \underline{75} \text{ gpm}</math><br/>( 1 min)</p>  | See Key. | _____ | _____   |
| *   | <p>3. For 2A DWEDS calculates total gallons pumped of <b>266</b> (1236 – 970) divided by pumping time of <b>210</b> seconds (4 min 15 sec) equals a pump flow rate of <b>76 gpm</b>.</p> <p><math>\frac{(266 \text{ gal}) \times (60 \text{ sec})}{(210 \text{ sec})} = \underline{76} \text{ gpm}</math><br/>( 1 min)</p> | See Key. | _____ | _____   |

## Job Performance Measure (JPM)

| PERFORMANCE CHECKLIST   | STANDARDS                 | SAT   | UNSAT | Comment |
|---|---------------------------|-------|-------|---------|
| * 4. For 2B DWEDS calculates total gallons pumped of <b>270</b> (1277 – 1007) divided by pumping time of <b>225</b> seconds (4 min 15 sec) equals a pump flow rate of <b>72 gpm</b> .<br><br>$\frac{(270 \text{ gal}) \times (60 \text{ sec})}{(225 \text{ sec}) (1 \text{ min})} = \underline{72} \text{ gpm}$ | See Key.                  | _____ | _____ | _____   |
| 5. Notify Unit Supervisor task complete and/or the need for calculations verification.  | Notifies Unit Supervisor. | _____ | _____ | _____   |
| <b><u>CUE:</u></b><br>Acknowledge report of task completion.  |                           |       |       |         |
| END   |                           |       |       |         |

**JPM Stop Time:** \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_

Job Title: RO

JPM Title: CALCULATE FLOWS FOR DRYWELL SUMPS

Revision Number: 00

JPM Number: A-N-3-R

Task Number and Title: 29800LP013, Perform the duties of a Unit NSO including monitoring the unit, answering the phones and radio, completing logs, surveillances, and daily sheets, and filling out and conducting a shift turnover.

K/A Number and Importance: Generic.2.2.12 3.7 / 4.1

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:**  Simulator  Control Room  In-Plant

**Testing Method:**  Simulate  Perform  
Alternate Path:  Yes  No  
SRO Only:  Yes  No

**Time Critical:**  Yes  No

**Estimated Time to Complete:** 12 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** APPENDIX A, rev 114

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluator's Name (Print): \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Job Performance Measure (JPM)

### INITIAL CONDITIONS

1. You are the Unit 2 NSO.
2. The Unit 2 Floor Drain and Equipment Drain Sumps were pumped by the Aux NSO, with the following data:

|          | PUMP START | PUMP STOP  | STOPWATCH    |
|----------|------------|------------|--------------|
|          | Integrator | Integrator | Elapsed Time |
| 2A DWFDS | 00250      | 00556      | 4 min 15 sec |
| 2B DWFDS | 00382      | 00682      | 4 min 00 sec |
| 2A DWEDS | 00970      | 01236      | 3 min 30 sec |
| 2B DWEDS | 01007      | 01277      | 3 min 45 sec |

### INITIATING CUE

1. The Unit Supervisor has directed you to perform Appendix A, Drywell Floor/Equipment Drain Sump Pumps Flowrate Worksheet, using the data provided above.
2. Another Operator will verify your calculations.
3. Provide the worksheet to the Unit Supervisor when the task is complete.

# Exelon Nuclear

## Job Performance Measure

REVIEW CALCULATED DRYWELL LEAKRATE PAPERWORK

JPM Number: A-N-3-S

Revision Number: 03

Date: 09/08

Developed By: \_\_\_\_\_  
Instructor Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

**Revision 02** Bank JPM.

**Revision 03** JPM revised for 2009 NRC Exam

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

1. This is a tabletop JPM utilizing simulator procedures.
2. No Simulator setup needed.

### **DOCUMENT PREPARATION**

1. Markup a copy of Appendix 'A'.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. You are the Unit 2 Supervisor.
2. Unit 2 is operating at rated conditions.
3. The Aux NSO has completed the Saturday 1200 Appendix A MODE 1, 2 , AND 3 REACTOR COOLANT LEAKAGE LOG.

### **INITIATING CUE**

1. Complete the Unit Supervisor review of Appendix A MODE 1, 2 , AND 3 REACTOR COOLANT LEAKAGE LOG and identify any Tech Spec requirements.
2. Correct any discrepancies noted (if any).

---

**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.
- Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

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## Job Performance Measure (JPM)

JPM Start Time: \_\_\_\_\_

| PERFORMANCE CHECKLIST  | STANDARDS | SAT   | UNSAT  | Comment |
|--|-----------|---|--|---------|
| <b><u>CUE:</u></b>   |           |   |  |         |
| If asked, leak check is in progress and/or Drywell samples and CAM results are trending up.  |           |   |  |         |
| *  | 1.        | Verifies Calculated Floor Drain Leakage is correct.     | Determines Floor Drain leakage for SAT 0400 hours should be 4.44 gpm and TOTAL should be 11.66 gpm.  | _____   |
| *  | 2.        | Check if Floor Drain Leakage meets acceptance criteria. | Identifies Floor Drain leakage Acceptance Criteria is NOT met for FRI 1600 hours (> 5 gpm).  | _____   |
| If asked to correct Floor Drain leakage numbers and Total leakage, instruct the examinee to make corrections and perform calculation based on numbers given. |           |   |  |         |
| *  | 3.        | Verifies Calculated Equipment Drain Leakage is correct. | Determines calculated Equipment Drain leakage for FRI 0800 hours should be 8.02 gpm (TOTAL is correct if above is corrected).  | _____   |
| *  | 4.        | References Tech Specs.                                  | References Tech Spec 3.4.4 and recognizes <ul style="list-style-type: none"> <li>• &gt;5 gpm unidentified leakage for FRI 1600 hours.</li> </ul> Recognizes in Cond A & B. | _____   |
|  | 5.        | Reports discrepancies.                                  | Examinee reports discrepancies noted.  | _____   |
| <b><u>CUE:</u></b>   |           |   |  |         |
| Acknowledge report of task completion.   |           |   |  |         |
|  |           | END   |  |         |

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_

Job Title: SRO

JPM Title: REVIEW CALCULATED DRYWELL LEAKRATE PAPERWORK

Revision Number: 03

JPM Number: A-N-3-S

Task Number and Title: 29900LK108, Discuss the Unit Supervisor's responsibilities for plant operation.

K/A Number and Importance: Generic.2.2.12 3.7 / 4.1

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:**  Simulator  Control Room  In-Plant

**Testing Method:**  Simulate  Perform  
Alternate Path:  Yes  No  
SRO Only:  Yes  No

**Time Critical:**  Yes  No

**Estimated Time to Complete:** 15 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** APPENDIX A, rev 114

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluator's Name (Print): \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. You are the Unit 2 Supervisor.
2. Unit 2 is operating at rated conditions.
3. The Aux NSO has completed the Saturday 1200 Appendix A MODE 1, 2 , AND 3 REACTOR COOLANT LEAKAGE LOG.

### **INITIATING CUE**

1. Complete the Unit Supervisor review of Appendix A MODE 1, 2 , AND 3 REACTOR COOLANT LEAKAGE LOG and identify any Tech Spec requirements.
2. Correct any discrepancies noted (if any).

# Exelon Nuclear

## Job Performance Measure

SELECT PERSONEL FOR RADIATION WORK

JPM Number: A-N-4-R

Revision Number: 03

Date: 09/08

Developed By: \_\_\_\_\_

Instructor

\_\_\_\_\_

Date

Approved By: \_\_\_\_\_

Facility Representative

\_\_\_\_\_

Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

**Revision 02** Bank JPM.

**Revision 03** Modified for 2009 NRC Exam.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

1. This is a tabletop JPM utilizing simulator procedures.
2. No Simulator setup needed.

### **DOCUMENT PREPARATION**

1. Markup a copy of an RWP and survey map for the Unit 3 RWCU Pump Room.

## Job Performance Measure (JPM)

### INITIAL CONDITIONS

1. You are an NSO and will be briefing NLOs to perform a Clearance Order First Hang in the Unit 3 RWCU Pump Room under RWP 10004555.
2. Five NLOs are available this shift.
  - None of the five have received dose at any location other than Dresden Station.
  - None of the five have received dose since midnight on any RWPs other than 10004555.
3. The Radiation Protection Department has provided the attached Survey map, and the following dose history for the five NLOs to assist you in your planning:

| Name  | DDE dose received on RWP 10004555 <u>Today</u> | Annual TEDE dose <u>To Date</u> |
|-------|--|---------------------------------|
| Bill  | 10 mrem  | 1400 mrem                       |
| Lenny | 60 mrem  | 1700 mrem                       |
| Jerry | 0 mrem   | 1750 mrem                       |
| Scott | 10 mrem  | 1950 mrem                       |
| Harry | 40 mrem  | 1850 mrem                       |

4. The total expected stay time for each NLO will be 45 minutes. Based on past job history, it will breakdown as follows:
  - 30 minutes total in the area near the following **two** valves:
    - 3-1201-138 RWCU Aux Pump Suction (at RWCU Aux Pump)
    - 3-1201-139 RWCU Aux Pump Discharge (at RWCU Aux Pump)
  - 15 minutes total in the area near the following **one** valve:
    - 3-1201-128A 'A' RWCU Pump Suction (at 'A' RWCU Pump)

### INITIATING CUE

1. CALCULATE the expected dose for the work in RWCU Pump Room. DETERMINE which NLO(s) CAN and which NLO(s) CAN NOT be assigned to perform the task. EXPLAIN the basis for your determination.

## **Job Performance Measure (JPM)**

---

**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.
- Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

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## Job Performance Measure (JPM)

JPM Start Time: \_\_\_\_\_

| PERFORMANCE CHECKLIST  | STANDARDS  | SAT  | UNSAT | Comment |
|--|--|--|-------|---------|
| <p><b><u>NOTE:</u></b></p> <p>Provide the examinee with the provided copy of the RWP and survey map of the RWCU pump room and the copy of RP-AA-203.</p> <p>The following steps may be performed in any order.</p>   |  |  |       |         |
| 1.   | Reviews Survey Maps to determine area dose rates.                                    | Reviews the survey maps and determines area dose rates to be 50 mr/hr for the first group of 2 valves and 160 mr/hr for the remaining valve. | _____ | _____   |
| <p><b><u>NOTE:</u></b></p> <p>The following calculations should be made:</p> <p style="margin-left: 40px;">2 valve clearance projected dose = 0.50 hr x 50 mr/hr = <b>25mrem</b></p> <p style="margin-left: 40px;">1 valve clearance projected dose = 0.25 hr x 160 mr/hr = <b>40mrem</b></p> <p style="margin-left: 40px;">Total projected dose for the job = 40mrem + 30 mrem = <b>65 mrem</b></p> |  |  |       |         |
| *  | 2. Calculates that the projected dose that will be received for the task is 65 mrem. | Determines the NLO's will receive 25 mrem on the first 2 valves and 40 on the next 1.  | _____ | _____   |
| <p><b><u>CUE:</u></b></p> <p>IF the candidate inquires whether or not any of the NLOs has received permission to exceed any dose limits, respond: "None of the Non Licensed Operators have received permission to exceed any limits".</p>  |  |  |       |         |
| <p><b><u>NOTE:</u></b></p> <p>The following steps may be performed in any order.</p>   |  |  |       |         |
| *  | 3. Determines that Bill CAN perform the job because no limits will be exceeded.      | Bill's total RWP dose and Annual dose will remain below the limits.  | _____ | _____   |

## Job Performance Measure (JPM)

| PERFORMANCE CHECKLIST |    | STANDARDS  | SAT  | UNSAT | Comment |       |
|-----------------------|----|--|--|-------|---------|-------|
| *                     | 4. | Determines that Lenny <b>CAN NOT</b> perform the job because he would exceed the 80 mrem dose alarm on RWP 10004555. | Lenny's total dose on RWP 10004555 would be <b><u>125 mrem.</u></b>  | _____ | _____   | _____ |
| *                     | 5. | Determines that Jerry <b>CAN</b> perform the job because no limits will be exceeded.                                 | Jerry's total RWP dose and Annual dose will remain below the limits. | _____ | _____   | _____ |
| *                     | 6. | Determines that <b>Scott CAN NOT</b> perform the job because he would exceed the 2000 mrem Exelon Annual limit.      | Bob's total Annual dose would be <b><u>2015 mrem.</u></b>            | _____ | _____   | _____ |
| *                     | 7. | Determines that Harry <b>CAN NOT</b> perform the job because he would exceed the 80 mrem dose alarm on RWP 10004555. | Harry's total dose on RWP 10004555 would be <b><u>105 mrem.</u></b>  | _____ | _____   | _____ |
|                       |    |  | END  |       |         |       |

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_

Job Title: RO

JPM Title: SELECT PERSONEL FOR RADIATION WORK

Revision Number: 03

JPM Number: A-N-4-R

Task Number and Title: 29900LK119, Discuss the items to be considered prior to work authorization

K/A Number and Importance: Generic.2.3.4 3.2 / 3.7

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:**  Simulator  Control Room  In-Plant

**Testing Method:**  Simulate  Perform  
Alternate Path:  Yes  No  
SRO Only:  Yes  No

**Time Critical:**  Yes  No

**Estimated Time to Complete:** 10 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** RP-AA-203, rev 03

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluator's Name (Print): \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Job Performance Measure (JPM)

# KEY

**EVALUATOR:** The candidate must determine that dose for the task will be 65 mrem and determine that only two NLO can receive the dose, necessary to complete the task. They are Bill and Jerry. See the table below for projected job dose, 24 hour total dose on RWP 10004555, and total Annual TEDE dose for each Operator.

Calculation:

2 valves clearance (at RWCU Aux Pump) projected dose =  $0.50 \text{ hr} \times 50 \text{ mr/hr} =$   
25mrem

1 valve clearance (at 'A' RWCU Pump) projected dose =  $0.25\text{hr} \times 160 \text{ mr/hr} =$   
40mrem

$25\text{mrem} + 40 \text{ mrem} =$  65 mrem projected job dose for clearance order hanging

| Name  | DDE dose received on RWP 10004555 today | Annual TEDE dose as of Midnight To Date | Projected dose on RWP 10004555 for the 24 hour period | Projected Annual TEDE (including all dose from last 24 hours) |
|-------|---|---|---|---|
| Bill  | 10 mrem                                 | 1400 mrem                               | (10 + 65 =)<br><u>75 mrem</u>                         | (1400 + 65 =)<br><u>1465 mrem</u>                             |
| Lenny | 60 mrem                                 | 1700 mrem                               | (60 + 65 =)<br><b>125 mrem</b>                        | (1700 + 65 =)<br><u>1815 mrem</u>                             |
| Jerry | 0 mrem                                  | 1750 mrem                               | (0 + 65 =)<br><u>65 mrem</u>                          | (1200 + 65 =)<br><u>1465 mrem</u>                             |
| Scott | 10 mrem                                 | 1950 mrem                               | (10 + 65 =)<br><u>75 mrem</u>                         | (1950 + 65 =)<br><b>2015 mrem</b>                             |
| Harry | 40 mrem                                 | 1850 mrem                               | (40 + 65 =)<br><b>115 mrem</b>                        | (1850 + 65 =)<br><u>1915 mrem</u>                             |

The **bolded** values in the table exceed the applicable Company, RWP, or 10CFR limit.

## Job Performance Measure (JPM)

### INITIAL CONDITIONS

1. You are an NSO and will be briefing NLOs to perform a Clearance Order First Hang in the Unit 3 RWCU Pump Room under RWP 10004555.
2. Five NLOs are available this shift.
  - None of the five have received dose at any location other than Dresden Station.
  - None of the five have received dose since midnight on any RWPs other than 10004555.
3. The Radiation Protection Department has provided the attached Survey map, and the following dose history for the five NLOs to assist you in your planning:

| Name  | DDE dose received on RWP 10004555 <u>Today</u> | Annual TEDE dose <u>To Date</u> |
|-------|--|---------------------------------|
| Bill  | 10 mrem  | 1400 mrem                       |
| Lenny | 60 mrem  | 1700 mrem                       |
| Jerry | 0 mrem   | 1750 mrem                       |
| Scott | 10 mrem  | 1950 mrem                       |
| Harry | 40 mrem  | 1850 mrem                       |

4. The total expected stay time for each NLO will be 45 minutes. Based on past job history, it will breakdown as follows:
  - 30 minutes total in the area near the following **two** valves:
    - 3-1201-138 RWCU Aux Pump Suction (at RWCU Aux Pump)
    - 3-1201-139 RWCU Aux Pump Discharge (at RWCU Aux Pump)
  - 15 minutes total in the area near the following **one** valve:
    - 3-1201-128A 'A' RWCU Pump Suction (at 'A' RWCU Pump)

### INITIATING CUE

1. CALCULATE the expected dose for the work in RWCU Pump Room. DETERMINE which NLO(s) CAN and which NLO(s) CAN NOT be assigned to perform the task. EXPLAIN the basis for your determination.

# Exelon Nuclear

## Job Performance Measure

SELECT PERSONEL FOR RADIATION WORK

JPM Number: A-N-4-S

Revision Number: 03

Date: 09/08

Developed By: \_\_\_\_\_  
Instructor Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

**Revision 02** Bank JPM.

**Revision 03** Modified for 2009 NRC Exam.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

1. This is a tabletop JPM utilizing simulator procedures.
2. No Simulator setup needed.

### **DOCUMENT PREPARATION**

1. Markup a copy of an RWP and survey map for the Unit 3 RWCU Pump Room.

## Job Performance Measure (JPM)

### INITIAL CONDITIONS

1. You are the WEC Supervisor and will be briefing NLOs to perform a Clearance Order First Hang in the Unit 3 RWCU Pump Room under RWP 10004555.
2. Five NLOs are available this shift.
  - None of the five have received dose at any location other than Dresden Station.
  - None of the five have received dose since midnight on any RWPs other than 10004555.
3. The Radiation Protection Department has provided the attached Survey map, and the following dose history for the five NLOs to assist you in your planning:

| Name  | DDE dose received on RWP 10004555 <u>Today</u> | Annual TEDE dose <u>To Date</u> |
|-------|--|---------------------------------|
| Bill  | 10 mrem  | 1400 mrem                       |
| Lenny | 60 mrem  | 1700 mrem                       |
| Jerry | 0 mrem   | 1750 mrem                       |
| Scott | 10 mrem  | 1950 mrem                       |
| Harry | 40 mrem  | 1850 mrem                       |

4. The total expected stay time for each NLO will be 45 minutes. Based on past job history, it will breakdown as follows:
  - 30 minutes total in the area near the following **two** valves:
    - 3-1201-138 RWCU Aux Pump Suction (at RWCU Aux Pump)
    - 3-1201-139 RWCU Aux Pump Discharge (at RWCU Aux Pump)
  - 15 minutes total in the area near the following **one** valve:
    - 3-1201-128A 'A' RWCU Pump Suction (at 'A' RWCU Pump)

### INITIATING CUE

1. CALCULATE the expected dose for the work in RWCU Pump Room. DETERMINE which NLO(s) CAN and which NLO(s) CAN NOT be assigned to perform the task. EXPLAIN the basis for your determination.

## **Job Performance Measure (JPM)**

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**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.
- Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

---

## Job Performance Measure (JPM)

JPM Start Time: \_\_\_\_\_

| PERFORMANCE CHECKLIST   | STANDARDS  | SAT  | UNSAT | Comment |
|---|--|--|-------|---------|
| <p><b><u>NOTE:</u></b></p> <p>Provide the Examinee with the attached copy of the RWP and survey map of the RWCU pump room and a copy of RP-AA-203.</p> <p>The following steps may be performed in a any order.</p>  |  |  |       |         |
| 1.  | Reviews Survey Maps to determine area dose rates.                                    | Reviews the survey maps and determines area dose rates to be 50 mr/hr for the first group of 2 valves and 160 mr/hr for the remaining valve. | _____ | _____   |
| <p><b><u>NOTE:</u></b></p> <p>The following calculations should be made:</p> <p>2 valve clearance projected dose = 0.50 hr x 50 mr/hr = <b>25mrem</b></p> <p>1 valve clearance projected dose = 0.25 hr x 160 mr/hr = <b>40mrem</b></p> <p>Total projected dose for the job = 40mrem + 30 mrem = <b>65 mrem</b></p> |  |  |       |         |
| *   | 2. Calculates that the projected dose that will be received for the task is 65 mrem. | Determines the NLO's will receive 25 mrem on the first 2 valves and 40 on the next 1.  | _____ | _____   |
| <p><b><u>CUE:</u></b></p> <p>IF the candidate inquires whether or not any of the NLOs has received permission to exceed any dose limits, respond: "None of the Non Licensed Operators have received permission to exceed any limits".</p>   |  |  |       |         |
| <p><b><u>NOTE:</u></b></p> <p>The following steps may be performed in any order.</p>  |  |  |       |         |
| *   | 3. Determines that Bill CAN perform the job because no limits will be exceeded.      | Bill's total RWP dose and Annual dose will remain below the limits.  | _____ | _____   |

### Job Performance Measure (JPM)

| PERFORMANCE CHECKLIST |    | STANDARDS  | SAT  | UNSAT | Comment |       |
|-----------------------|----|--|--|-------|---------|-------|
| *                     | 4. | Determines that Lenny <b>CAN NOT</b> perform the job because he would exceed the 80 mrem dose alarm on RWP 10004555. | Lenny's total dose on RWP 10004555 would be <b><u>125 mrem.</u></b>  | _____ | _____   | _____ |
| *                     | 5. | Determines that Jerry <b>CAN</b> perform the job because no limits will be exceeded.                                 | Jerry's total RWP dose and Annual dose will remain below the limits. | _____ | _____   | _____ |
| *                     | 6. | Determines that <b>Scott CAN NOT</b> perform the job because he would exceed the 2000 mrem Exelon Annual limit.      | Bob's total Annual dose would be <b><u>2015 mrem.</u></b>            | _____ | _____   | _____ |
| *                     | 7. | Determines that Harry <b>CAN NOT</b> perform the job because he would exceed the 80 mrem dose alarm on RWP 10004555. | Harry's total dose on RWP 10004555 would be <b><u>105 mrem.</u></b>  | _____ | _____   | _____ |
|                       |    |  | END  |       |         |       |

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_

Job Title: SRO

JPM Title: SELECT PERSONEL FOR RADIATION WORK

Revision Number: 03

JPM Number: A-N-4-S

Task Number and Title: 29900LK119, Discuss the items to be considered prior to work authorization

K/A Number and Importance: Generic.2.3.4 3.2 / 3.7

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:**  Simulator  Control Room  In-Plant

**Testing Method:**  Simulate  Perform  
Alternate Path:  Yes  No  
SRO Only:  Yes  No

**Time Critical:**  Yes  No

**Estimated Time to Complete:** 10 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** RP-AA-203, rev 03

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluator's Name (Print): \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Job Performance Measure (JPM)

# KEY

**EVALUATOR:** The candidate must determine that dose for the task will be 65 mrem and determine that only two NLO can receive the dose, necessary to complete the task. They are Bill and Jerry. See the table below for projected job dose, 24 hour total dose on RWP 10004555, and total Annual TEDE dose for each Operator.

Calculation:

2 valves clearance (at RWCU Aux Pump) projected dose =  $0.50 \text{ hr} \times 50 \text{ mr/hr} =$   
25mrem

1 valve clearance (at 'A' RWCU Pump) projected dose =  $0.25\text{hr} \times 160 \text{ mr/hr} =$   
40mrem

$25\text{mrem} + 40 \text{ mrem} =$  65 mrem projected job dose for clearance order hanging

| Name  | DDE dose received on RWP 10004555 today | Annual TEDE dose as of Midnight To Date | Projected dose on RWP 10004555 for the 24 hour period | Projected Annual TEDE (including all dose from last 24 hours) |
|-------|---|---|---|---|
| Bill  | 10 mrem                                 | 1400 mrem                               | (10 + 65 =)<br><u>75 mrem</u>                         | (1400 + 65 =)<br><u>1465 mrem</u>                             |
| Lenny | 60 mrem                                 | 1700 mrem                               | (60 + 65 =)<br><b>125 mrem</b>                        | (1700 + 65 =)<br><u>1815 mrem</u>                             |
| Jerry | 0 mrem                                  | 1750 mrem                               | (0 + 65 =)<br><u>65 mrem</u>                          | (1200 + 65 =)<br><u>1465 mrem</u>                             |
| Scott | 10 mrem                                 | 1950 mrem                               | (10 + 65 =)<br><u>75 mrem</u>                         | (1950 + 65 =)<br><b>2015 mrem</b>                             |
| Harry | 40 mrem                                 | 1850 mrem                               | (40 + 65 =)<br><b>115 mrem</b>                        | (1850 + 65 =)<br><u>1915 mrem</u>                             |

The **bolded** values in the table exceed the applicable Company, RWP, or 10CFR limit.

## Job Performance Measure (JPM)

### INITIAL CONDITIONS

1. You are the WEC Supervisor and will be briefing NLOs to perform a Clearance Order First Hang in the Unit 3 RWCU Pump Room under RWP 10004555.
2. Five NLOs are available this shift.
  - None of the five have received dose at any location other than Dresden Station.
  - None of the five have received dose since midnight on any RWPs other than 10004555.
3. The Radiation Protection Department has provided the attached Survey map, and the following dose history for the five NLOs to assist you in your planning:

| Name  | DDE dose received on RWP 10004555 <u>Today</u> | Annual TEDE dose <u>To Date</u> |
|-------|--|---------------------------------|
| Bill  | 10 mrem  | 1400 mrem                       |
| Lenny | 60 mrem  | 1700 mrem                       |
| Jerry | 0 mrem   | 1750 mrem                       |
| Scott | 10 mrem  | 1950 mrem                       |
| Harry | 40 mrem  | 1850 mrem                       |

4. The total expected stay time for each NLO will be 45 minutes. Based on past job history, it will breakdown as follows:
  - 30 minutes total in the area near the following **two** valves:
    - 3-1201-138 RWCU Aux Pump Suction (at RWCU Aux Pump)
    - 3-1201-139 RWCU Aux Pump Discharge (at RWCU Aux Pump)
  - 15 minutes total in the area near the following **one** valve:
    - 3-1201-128A 'A' RWCU Pump Suction (at 'A' RWCU Pump)

### INITIATING CUE

1. CALCULATE the expected dose for the work in RWCU Pump Room. DETERMINE which NLO(s) CAN and which NLO(s) CAN NOT be assigned to perform the task. EXPLAIN the basis for your determination.

# Exelon Nuclear

## Job Performance Measure

DETERMINE EMERGENCY CLASSIFICATION AND FILL OUT NARS FORM

JPM Number: A-N-5-S

Revision Number: 00

Date: 09/08

Developed By: \_\_\_\_\_  
Instructor Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

**Revision 00** New JPM developed for 2009 NRC Exam.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

1. This is a tabletop JPM utilizing simulator procedures.
2. No Simulator setup needed.

### **DOCUMENT PREPARATION**

1. Provided copy of NARS form.
2. Screenshot of meteorological data.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. This is a time critical JPM.
2. You are the Shift Emergency Director.
3. Both units were operating at near rated power when a loss of off-site power transient occurred on Unit 2, resulting in the following conditions:
  - An automatic scram signal was received.
  - The NSO attempted a manual scram and ARI, with both being unsuccessful.
  - Reactor power is 25%.
  - RPV pressure is 850 psig.
  - Torus water level is 16 feet.
  - RPV water level is -155 inches.
  - Torus water temperature is 170°F.

### **INITIATING CUES**

1. If an emergency condition exists:
  - Determine EAL(s) (ignore discretionary EALs).
  - Complete a NARS form. Give the NARS form to the WEC Supervisor, who will make the state notification.

### **OR:**

2. If NO emergency condition exists:
  - Determine ENS notification requirement.
  - Fill out ENS form. Give the ENS form to the WEC Supervisor, who will make the notification.

## **Job Performance Measure (JPM)**

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**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.
- Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

---

## Job Performance Measure (JPM)

JPM Start Time: \_\_\_\_\_

| PERFORMANCE CHECKLIST  | STANDARDS  | SAT   | UNSAT | Comment |
|--|--|---|-------|---------|
| <p><b><u>NOTE:</u></b></p> <p>Examinee locates a copy of Radiological Emergency Plan Annex for Dresden EP-AA-1004 charts.<br/>Provide the supplied NARS Form.<br/>Provide the supplied screen shot of the meteorological data.</p> |  |   |       |         |
| *  | <p>1. Determines a classification of GENERAL EMERGENCY, due to the threshold values:</p> <ul style="list-style-type: none"> <li>• Failure of automatic scram, manual scram, and ARI as indicated by Reactor Power &gt;6%.</li> </ul> <p><u>AND</u></p> <ul style="list-style-type: none"> <li>• Heat Capacity Limit of DEOP 200-1 figure M is exceeded.</li> </ul> | <p>Determines highest classification is a GENERAL EMERGENCY per EAL <b>MG3</b>.</p> | _____ | _____   |
| <p><b><u>NOTE:</u></b></p> <p>Determines classification start time _____ and stop time _____ .<br/>(15 minute limit)</p>   |  |   |       |         |
| *  | <p>2. Properly fills out NARS form.</p>  | <p>See attached key for the areas that must be filled out correctly.</p>            | _____ | _____   |
| <p><b><u>NOTE:</u></b></p> <p>Fill out NARS form start time (<i>when declaration completed</i>) _____ and stop time _____ .<br/>(10 minute limit)</p>  |  |   |       |         |
| END  |  |   |       |         |

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_

Job Title: SRO

JPM Title: DETERMINE EMERGENCY CLASSIFICATION AND FILL OUT NARS FORM

Revision Number: 00

JPM Number: A-N-5-S

Task Number and Title: 295L160, Given a plant in an off normal condition, determine the EP classification.

K/A Number and Importance: Generic.2.4.38 2.4 / 4.4

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:**  Simulator  Control Room  In-Plant

**Testing Method:**  Simulate  Perform  
Alternate Path:  Yes  No  
SRO Only:  Yes  No

**Time Critical:**  Yes  No

**Estimated Time to Complete:** 15 (declare) 10 (fill out) minutes

**Actual Time Used:** \_\_\_\_\_minutes

**References:** EP-AA-1004, Rev 25

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluator's Name (Print): \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

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  - The NSO attempted a manual scram and ARI, with both being unsuccessful.
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### **INITIATING CUES**

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  - Fill out ENS form. Give the ENS form to the WEC Supervisor, who will make the notification.