



# JOB PERFORMANCE MEASURE APPROVAL SHEET

## SUMMARY OF CHANGE(S)

<b>Date</b>	<b>Chg/Rev</b>	<b>Description</b>
1/3/07	0 chg 1	Revised JPM to correspond to the standard NTP format. Made minor modifications to the initial conditions and initiating cue for clarity. DLM
2/19/07	0 chg 2	Modified initiating cue to require a total time duration be given as opposed to whether or not the power ascension can be achieved by the end of shift, and added a maximum power ascension rate of 10% per hour. Modified the task standard accordingly. Allowed answers between 9 hours and 9 hours 40 minutes. Modified the note following performance step 7 accordingly.

## JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3

JPM ID Number: NRC RO A.1.1

Revision: 0 chg 2

Task Title: Determine the maximum rate of power increase and control rod withdrawal restrictions.

System: NA

Time Critical Task: ( ) YES ( X ) NO

Validated Time (minutes): 15

Task Number(s): \_\_\_\_\_

Applicable To: SRO X RO X PEO \_\_\_\_\_

K/A Number: 2.1.25

K/A Rating: 3.1 / 2.8

Method of Testing: Simulated Performance: \_\_\_\_\_ Actual Performance: X

Location: Classroom: X Simulator: \_\_\_\_\_ In-Plant: \_\_\_\_\_

Task Standards:

- Applicant recognizes the Fuel Condition Category as "Partially Conditioned" up to power level, P, of 80% and rod position, N, of 218 steps on CBD.
  - Applicant correctly identifies the following limits:
    - ◆ 10% per hour to power level "P" where P=80%.
    - ◆ 4% over any 1 hour period, 7% over any 2 hour period, 10% over any 3 hour period to achieve a nominal 3% full power per hour rate, and
    - ◆ Control Rod Withdrawal restricted to 3 steps per hour above 218 steps on CBD.
- Applicant correctly applies the limits to determine the least amount of time required to achieve 100% power without exceeding authorized fuel condition load increase restrictions.

Required Materials:

- Operating Procedure OP 3204, At Power Operations.
- Attachment 4 of OP 3204

General References:

Operating Procedure OP 3204, At Power Operations.

**\*\*\*READ TO THE CANDIDATE\*\*\***

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number:     NRC RO A.1.1    

Revision:     0 chg 2    

Simulator Requirements:   None

Initial Conditions:        You are the Reactor Operator currently on shift. The plant has recently completed a refueling outage and subsequent plant startup, which started on Monday, 12 July 2004.

On **Wednesday, 14 July 2004 at 09:00**, the plant reached 80% reactor power with CBD at 218 steps. The plant remained at 80% power until **Saturday, 17 July 2004 at 13:00** when a Turbine Driven Feedwater Pump malfunctioned and had to be shutdown for repairs. The plant reached 50% power on **Saturday, 17 July 2004 at 19:30**. Since then the plant has been operating steady at **50%** power with **CBD at 218 steps**.

Now the time is **Wednesday, 21 July 2004 at 08:00** hours. Turbine Driven Feedwater Pump repairs and testing are complete. The plant is ready to begin its return to full power.

Initiating Cues:        **Based on fuel conditioning, what is the least amount of time required to achieve 100% power without exceeding 10%/hour or any other maneuvering limits. Assume that control rods will remain at CBD step 218 throughout the power ascension and that the power ascension begins immediately.**

**ARE THERE ANY QUESTIONS?  
YOU MAY BEGIN.**

### \*\*\*\* NOTES TO EVALUATOR \*\*\*\*

1. Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

## PERFORMANCE INFORMATION

JPM Number:   NRC RO A.1.1  

Revision:   0 chg 2  

Task Title:   Determine the maximum rate of power increase  

Start Time:           

**NOTE: Order or sequence of performance is NOT critical**

<b>STEP</b>	<u>  1  </u>	<u>          </u>	<b>Performance Step:</b>	Applicant obtains/requests a copy of OP 3204, "At Power Operation."
<b>GRADE</b>	<u>          </u>	<u>          </u>	<b>Standards:</b>	Obtains OP 3204.
			<b>Grade:</b>	<b>SAT</b> <u>          </u> <b>UNSAT</b> <u>          </u>
<b>STEP</b>	<u>  2  </u>	<u>          </u>	<b>Performance Step:</b>	NA
<b>GRADE</b>	<u>          </u>	<u>          </u>	<b>Standards:</b>	Applicant reviews the initial conditions to determine recent power history
			<b>Grade:</b>	<b>SAT</b> <u>          </u> <b>UNSAT</b> <u>          </u>
<b>STEP</b>	<u>  3  </u>	<u>          </u>	<b>Performance Step:</b>	Determine the correct attachment to determine load increase restrictions based on fuel condition.
<b>GRADE</b>	<u>          </u>	<u>          </u>	<b>Standards:</b>	Applicant finds and refers to Attachment 4, "Fuel Condition Load Increase Restrictions."
			<b>Grade:</b>	<b>SAT</b> <u>          </u> <b>UNSAT</b> <u>          </u>
<b>STEP</b>	<u>  4  </u>	<u>  X  </u>	<b>Performance Step:</b>	Determine Fuel Condition category.
<b>GRADE</b>	<u>          </u>	<u>  X  </u>	<b>Standards:</b>	Applicant recognizes that the Fuel Condition Category is "Partially Conditioned".
			<b>Grade:</b>	<b>SAT</b> <u>          </u> <b>UNSAT</b> <u>          </u>

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.1.1

Revision: 0 chg 2

Task Title: Determine the maximum rate of power increase

<b>STEP</b>	<u>5</u>	<u>X</u>	<b>Performance Step:</b>	Determine Applicable Range of Power Level
<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant determines that the Applicable Range of Power change for current plant conditions is 50% to 100% power.
<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	Applicant correctly determines that the plant has been at 80% power ("P") and CBD at 218 steps ("N") for at least 72 hours.
			<b>Grade:</b>	<b>SAT</b> _____ <b>UNSAT</b> _____
<b>STEP</b>	<u>6</u>	<u>X</u>	<b>Performance Step:</b>	Determine Maximum Rate of Power Increase.
<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	Applicant recognizes the maximum rate of power increase as 'unlimited' to 80% and 3% per hour to 100%.
			<b>Grade:</b>	<b>SAT</b> _____ <b>UNSAT</b> _____
			<b>Evaluator NOTE:</b>	The applicant was given in the initiating cue the maximum power ascension rate of 10% per hour, but may request from the US what the maximum rate of power increase should be up to 80% power. If so, give the flowing cue:
			<b>CUE:</b>	Use a maximum power ascension rate of 10% per hour.
<b>STEP</b>	<u>7</u>	<u>X</u>	<b>Performance Step:</b>	Determine Time Required for the Power Ascension.
<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	Applicant applies the identified limits to determine the following times: <ul style="list-style-type: none"> <li>• 3 hours to raise power 30% (from 50% to 80%).</li> <li>• 6 hours, 40 minutes to raise power <u>20%</u> (from 80% to 100%).</li> <li>• <u>Total time = 9 hours: 40 minutes.</u></li> </ul>

# PERFORMANCE INFORMATION

JPM Number: NRC RO A.1.1

Revision: 0 chg 2

Task Title: Determine the maximum rate of power increase

**NOTE:** Critical Step is to calculate a time less than or equal to 9:40 hours down to and including 8 hours. The procedure wording is ambiguous and allows for answers between 9:00 to 9:40.

**Grade:**                      **SAT**                      **UNSAT**

**STEP**      8      X      **Performance Step:**      Determine the time to reach 100% Power.

**GRADE**      \_\_\_\_\_      X      **Standards:**      Applicant recognizes and reports that it will take 9 hours and 40 minutes to reach 100% power. (or similar words)

**Evaluator NOTE:**      A total time between 9 hours and 9 hours, 40 minutes is acceptable.

**Grade:**                      **SAT**                      **UNSAT**

**CUE:**                      **The evaluation for this JPM is complete.**

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

## VERIFICATION OF JPM COMPLETION

JPM Number:     NRC RO A.1.1    

Revision:     0 chg 2    

Date Performed:                     

Student:                                     

Evaluator:                                     

For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task?                      YES           NO   X  

Validated Time (minutes):                  10    

Actual Time to Complete (minutes):             

Result of JPM:              ("S" for satisfactory, "U" for unsatisfactory)

Result of oral questions (if applicable):

Number of Questions:             

Number of Correct Responses:             

Score:             

Areas for Improvement:

# STUDENT HANDOUT

JPM Number: NRC RO A.1.1

**Initial Conditions:** You are the Reactor Operator currently on shift. The plant has recently completed a refueling outage and subsequent plant startup, which started on Monday, 12 July 2004.

On **Wednesday, 14 July 2004 at 09:00**, the plant reached 80% reactor power with CBD at 218 steps. The plant remained at 80% power until **Saturday, 17 July 2004 at 13:00** when a Turbine Driven Feedwater Pump malfunctioned and had to be shutdown for repairs. The plant reached 50% power on **Saturday, 17 July 2004 at 19:30**. Since then the plant has been operating steady at **50% power with CBD at 218 steps**.

Now the time is **Wednesday, 21 July 2004 at 08:00** hours. Turbine Driven Feedwater Pump repairs and testing are complete. The plant is ready to begin its return to full power.

**Initiating Cues:** Based on fuel conditioning, what is the least amount of time required to achieve 100% power without exceeding 10%/hour or any other maneuvering limits. Assume that control rods will remain at CBD step 218 throughout the power ascension and that the power ascension begins immediately.



# JOB PERFORMANCE MEASURE APPROVAL SHEET

## SUMMARY OF CHANGE(S)

<b>Date</b>	<b>Chg/Rev</b>	<b>Description</b>
2/19/07	1/0	Modified initiating cue to give control bank D starting rod height. Modified final answer for predicted rod height to 88 steps from 90 steps. Added to the initiating cue to use the RE Curve and Data Book 'exclusively', to preclude a candidate from using AOP 3566, Immediate Boration, thumbrules.

## JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3

JPM ID Number: NRC RO A.1.2

Revision: 0 chg 1

Task Title: Determine the Required Boration Time and Final Control Rod Height For a Rapid Downpower.

System: NA

Time Critical Task: ( ) YES ( X ) NO

Validated Time (minutes): 10

Task Number(s): 009-01-004

Applicable To: SRO X RO X PEO       

K/A Number: 2.1.20 K/A Rating: 4.3 / 4.2

Method of Testing: Simulated Performance:        Actual Performance: X

Location: Classroom: X Simulator:        In-Plant:       

Task Standards: Correctly Determine the Required Boration Time and Final Control Rod Height For a Rapid Downpower.

Required Materials: AOP 3575, *Rapid Downpower*, and Cycle 11 End of Life RE Curve and Data Book with the January 2007 Monthly Reactivity Data Sheet

General References:

**\*\*\*READ TO THE STUDENT\*\*\***

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: NRC RO A.1.2

Revision: 0 chg 1

Simulator Requirements: None

Initial Conditions: The plant is at 100% power, core burnup is 17,000 MWD / MTU, current boron concentration is 300 ppm and Control Bank D position is 221 steps. You are the Extra Licensed Operator on shift. CONVEX has requested MP3 conduct an emergency load reduction of 480 MWe (1200 to 720 MWe).

Initiating Cues: The US has directed you to calculate the required boration time in accordance with AOP 3575. Assume a boration flowrate of 80 gpm. You are also directed to determine the final control rod height for the rapid downpower. Use the Cycle 11 End of Life RE Curve and Data Book exclusively, and use curves when possible.

### \*\*\*\* NOTES TO EVALUATOR \*\*\*\*

1. Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. The student's performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.1.2

Revision: 0 chg 1

Task Title: Determine Boration Time / Final Control Rod Height For Rapid Downpower.

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

STEP	<u>1</u>	_____	<b>Performance Step:</b>	Obtain proper Abnormal Operating Procedure and Curve Book.
GRADE	_____	_____	<b>Standards:</b>	Applicant obtains a copy of AOP 3575, <i>Rapid Downpower</i> and MP3 Cycle 11 EOL RE Curve and Data Book.
			<b>Grade:</b>	SAT _____ UNSAT _____

STEP	<u>2</u>	<u>X</u>	<b>Performance Step:</b>	Determine required boration time. AOP 3575 Step 5.j
GRADE	_____	<u>X</u>	<b>Standards:</b>	Applicant correctly determines the total power change: <ul style="list-style-type: none"> <li>• 480 Mwe / 12 Mwe per % power = <b>40%</b></li> </ul>
			Evaluator NOTE:	The applicant may question the US what to assume for a boration flowrate.
			CUE (if required):	Respond as the US to assume a boration flowrate of 80 gpm.

GRADE	_____	<u>X</u>	<b>Standards:</b>	Applicant correctly determines the required boration time using the following formula: $\frac{\text{Total Power Change (\%)} \times 15}{\text{BA Flow Rate}} = \text{Time (min)}$ <ul style="list-style-type: none"> <li>• [40% X 15] / 80 gpm = <b>7.5 minutes</b></li> </ul>
			<b>Grade:</b>	SAT _____ UNSAT _____

STEP	<u>3</u>	<u>X</u>	<b>Performance Step:</b>	Determine the total power defect associated with the 40% power change.
GRADE	_____	<u>X</u>	<b>Standards:</b>	Applicant refers to the "Total Power Defect vs Percent Power" curves (RE-E-01)

## PERFORMANCE INFORMATION

JPM Number:   NRC RO A.1.2  

Revision:   0 chg 1  

Task Title:   Determine Boration Time / Final Control Rod Height For Rapid Downpower.  

**GRADE**          X   **Standards:** Applicant selects the 300 ppm curve and determines the power defect associated with a power change from 100% to 60% power.

- $-2800 - (-1725) = 1075 \text{ pcm}$

**Evaluator NOTE:** Allow for minor curve interpolation error. A power defect between 1100 and 1050 pcm is acceptable.

**Grade:** **SAT**        **UNSAT**       

**STEP**   4     X   **Performance Step:** Determine boron concentration change associated with the boration.

**GRADE**          X   **Standards:** Applicant calculates the volume of boric acid added:

- $\text{Power Change (\%)} \times 15 = 600 \text{ gal}$

**GRADE**          X   **Standards:** Applicant refers to the monthly reactivity data sheet for the guideline value for "Gallons boric acid per ppm RCS (B) increase" (9.1 gal BA / ppm) and calculates RCS boron concentration change:

- $600 \text{ gal} / 9.1 \text{ gal per ppm} \sim 66 \text{ ppm}$

**Grade:** **SAT**        **UNSAT**       

**STEP**   5     X   **Performance Step:** Determine the negative reactivity added as a result of the boration.

**GRADE**          X   **Standards:** Applicant refers to the "Differential Boron Worth vs Burnup" curves (RE-F-02).

**GRADE**          X   **Standards:** Applicant selects the HFP DBW curve and determines differential boron worth for 17,000 MWD/MTU.

- $-6.96 \text{ pcm} / \text{ppm}$

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.1.2

Revision: 0 chg 1

Task Title: Determine Boration Time / Final Control Rod Height For Rapid Downpower.

**Evaluator NOTE:** Allow for minor curve interpolation error. A DBW between - 6.90 and - 7.00 pcm / ppm is acceptable.

**GRADE**          X   **Standards:** Applicant calculates the negative reactivity added:  
 • 66 ppm x (- 6.96 pcm / ppm) ~ - **459 pcm**

**Grade:** **SAT**        **UNSAT**       

**STEP**   6     X   **Performance Step:** Determine the negative reactivity added as a result of rod insertion.

**GRADE**          X   **Standards:** Applicant calculates the negative reactivity due to rod insertion by subtracting the reactivity change due to boron from the reactivity change for total power defect:  
 • 1075 pcm - 459 pcm = **616 pcm**

**Grade:** **SAT**        **UNSAT**       

**STEP**   7     X   **Performance Step:** Determine the predicted final control rod height.

**GRADE**          X   **Standards:** Applicant refers to the "Integral Rod Worth versus Steps Withdrawn" curve for control banks D and C in overlap, EOL, HFP, equilibrium Xe (RE-D-02).

**GRADE**          X   **Standards:** Applicant determines the predicted final control rod height for an integral rod worth of 616 pcm:

- **CB D at 88 steps**

**Evaluator NOTE:** Allow for minor curve interpolation error. A control rod height between 83 and 93 steps is acceptable.

**Grade:** **SAT**        **UNSAT**

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.1.2

Revision: 0 chg 1

Task Title: Determine Boration Time / Final Control Rod Height For Rapid  
Downpower.

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**STEP** 8        **Performance Step:** Applicant Reports Task Completion.

**GRADE**               **Standards:** Applicant reports to the US that the required boration time and final control rod height has been determined.

**CUE:** **Please turn in all notes and calculations. The evaluation for this JPM is complete.**

Stop Time:

## VERIFICATION OF JPM COMPLETION

JPM Number: NRC RO A.1.2

Revision: 0 chg 1

Date Performed: \_\_\_\_\_

Student: \_\_\_\_\_

Evaluator: \_\_\_\_\_

For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? YES \_\_\_\_\_ NO X

Validated Time (minutes): 10

Actual Time to Complete (minutes): \_\_\_\_\_

Result of JPM: \_\_\_\_\_ ("S" for satisfactory, "U" for unsatisfactory)

Result of oral questions (if applicable):

Number of Questions: \_\_\_\_\_

Number of Correct Responses: \_\_\_\_\_

Score: \_\_\_\_\_

Areas for Improvement:

## STUDENT HANDOUT

**JPM Number:** NRC RO A.1.2

**Initial Conditions:** The plant is at 100% power, core burnup is 17,000 MWD / MTU, current boron concentration is 300 ppm and Control Bank D position is 221 steps. You are the Extra Licensed Operator on shift. CONVEX has requested MP3 conduct an emergency load reduction of 480 MWe (1200 to 720 MWe).

**Initiating Cues:** The US has directed you to calculate the required boration time in accordance with AOP 3575. Assume a boration flowrate of 80 gpm. You are also directed to determine the final control rod height for the rapid downpower. Use the Cycle 11 End of Life RE Curve and Data Book exclusively, and use curves when possible.



# JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

## SUMMARY OF CHANGE(S)

<b>Date</b>	<b>Chg/Rev</b>	<b>Description</b>
1/23/07	0 chg 1	Revised JPM to update to revision 007-00 to WC 2, <i>Tagging</i> . Also modified initial conditions and cue to correspond to a maintenance team lead request instead of a recommendation to add realism. Removed tagging the pump control switch from the critical nature of the electrical tagout step. DLM
2/19/07	0 chg 2	Added ESK Power Supply Book to the list of required materials. Added to the initiating cue to assume that all valves are leak tight. Made separate performance steps for the required vent and the drain configurations to allow various combinations of open vents and drains. DLM

# JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3

JPM ID Number: NRC RO A.2

Revision: 0 chg 2

Task Title: Given a maintenance repair recommendation and reference material, recommend a clearance boundary.

System: Tagging and Clearance

Time Critical Task: ( ) YES ( X ) NO

Validated Time (minutes): 10 min

Task Number(s): 341-01-079, Develop and/or modify, review, authorize, install, verify, and clear a tag clearance in accordance with plant and/or site procedural and safety requirements

Applicable To: SRO        RO   X   PEO       

K/A Number: GEN.2.2.13, Knowledge of Tagging and Clearance Procedures K/A Rating: 3.6/3.8

Method of Testing: Simulated Performance:        Actual Performance:   X  

Location: Classroom:   X   Simulator:        In-Plant:       

Task Standards: Develop and review a tag clearance

Required Materials: Team Lead Tagout Request  
P&IDs, EM-109A  
EE One-Line diagrams  
ESK Power Supply Book  
OP 3337, Radioactive Gaseous Waste System

General References: WC 2, Tagging  
OP 3250, Removing Equipment from Service for Maintenance

### \*\*\*READ TO THE STUDENT\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number:     NRC RO A.2    

Revision     0 chg 2      
:

Simulator Requirements:   NONE

Initial Conditions:           The pump impeller on the “B” Degasifier Recirculation Pump, 3GWS-P1B, has seized. Repair efforts are planned and the maintenance first line supervisor has made a work package tagout request for the repair. The request includes the need to isolate, vent and drain, and to tagout electrically.

Initiating Cues:           Your task is to develop a clearance boundary for this repair activity based on the maintenance first line supervisor’s request. Assume all valves are leak tight.

### \*\*\*\* NOTES TO EVALUATOR \*\*\*\*

1. Critical steps for this JPM are indicated by an “X” after the step number. For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. The student’s performance is graded by an “S” for satisfactory or a “U” for unsatisfactory on each step.
2. When the student states what his/her simulated action/observation would be, read the appropriate “Cue”.
3. If necessary, question the student for details of simulated actions/observations (i.e. “What are you looking at?” or “What are you observing?”).

## PERFORMANCE INFORMATION

JPM Number:     NRC RO A.2    

Revision:     0 chg  
          2    

Task Title:       Given a maintenance repair recommendation and reference material,  
                  recommend a clearance boundary.

Start Time:           

<b>STEP</b>	<u>    1    </u>	<u>    X    </u>	<b>Performance Step:</b>	<b>Comments:</b> Electrical and mechanical isolation of the pump can be done in any order Identifies correct piping isolation boundary for the "B" Degasifier Recirculation Pump, 3GWS-P1B
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<b>GRADE</b>	<u>          </u>	<u>    X    </u>	<b>Standards:</b>	Uses P&ID EM-109A or OP3337-001 and other appropriate references and identifies the correct isolation boundary: <ul style="list-style-type: none"> <li>• Pump Discharge (3GWS-V10) CLOSED and red tagged</li> <li>• Pump Suction (3GWS-V6) CLOSED and red tagged</li> </ul>
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**Grade:**       **SAT**                  **UNSAT**           

<b>STEP</b>	<u>    2    </u>	<u>    X    </u>	<b>Performance Step:</b>	Identifies correct vent configuration for the "B" Degasifier Recirculation Pump, 3GWS-P1B
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<b>GRADE</b>	<u>          </u>	<u>    X    </u>	<b>Standards:</b>	Uses P&ID EM-109A or OP3337-001 and other appropriate references and identifies at least ONE of the following vent valves: <ul style="list-style-type: none"> <li>• Pump Discharge Vent (3GWS-V72) OPEN and red tagged</li> <li>• Pump Strainer Test Point (3GWS-V98) OPEN and red tagged</li> <li>• Pump Strainer Test Point (3GWS-V99) OPEN and red tagged</li> </ul>
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**Grade:**       **SAT**                  **UNSAT**

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.2

Revision: 0 chg  
2

Task Title: Given a maintenance repair recommendation and reference material, recommend a clearance boundary.

<b>STEP</b>	<u>3</u>	<u>X</u>	<b>Performance Step:</b>	Identifies correct drain configuration for the "B" Degasifier Recirculation Pump, 3GWS-P1B
<b>GRADE</b>	<u>      </u>	<u>X</u>	<b>Standards:</b>	Uses P&ID EM-109A or OP3337-001 and other appropriate references and identifies at least ONE of the following drain valves: <ul style="list-style-type: none"> <li>• Pump Casing Drain (3GWS-V107) OPEN and red tagged</li> <li>• Pump Suction Strainer Drain (3GWS-V105) OPEN and red tagged</li> </ul>
			<b>Grade:</b>	<b>SAT</b> <u>      </u> <b>UNSAT</b> <u>      </u>

<b>STEP</b>	<u>4</u>	<u>X</u>	<b>Performance Step:</b>	Identifies correct electrical isolation boundary for the "B" Degasifier Recirculation Pump, 3GWS-P1B
<b>GRADE</b>	<u>      </u>	<u>X</u>	<b>Standards:</b>	Uses OP3337-004, electrical line-up, or EE-1AC and other appropriate references and identifies the correct electrical isolation point: <ul style="list-style-type: none"> <li>• At MCC 32-3H(2M) OFF and red tagged</li> </ul>
<b>GRADE</b>	<u>      </u>	<u>      </u>	<b>Standards:</b>	Uses OP3337-004, electrical line-up, or EE-1AC and other appropriate references and identifies the correct electrical isolation point: <ul style="list-style-type: none"> <li>• 3GWS-P1B Control Switch OFF (or blank) and red or yellow tagged</li> </ul>

Evaluator NOTE: Tagging the pump control switch is not required to meet the critical nature of this step.

**Grade:**      **SAT**             **UNSAT**

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.2

Revision: 0 chg  
2

Task Title: Given a maintenance repair recommendation and reference material, recommend a clearance boundary.

**Comments:** Submits completed tagout to examiner as the Shift Manager. Tagout should substantially match the JPM attachment (filled out WC 2, attachment 6).

**Termination Cue: The Evaluation For This JPM is Complete.**

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



## STUDENT HANDOUT

**JPM Number:** NRC RO A.2

**Initial Conditions:** The pump impeller on the “B” Degasifier Recirculation Pump, 3GWS-P1B, has seized. Repair efforts are planned and the maintenance first line supervisor has made a work package tagout request for the repair. The request includes the need to isolate, vent and drain, and to tagout electrically.

**Initiating Cues:** Your task is to develop a clearance boundary for this repair activity based on the maintenance first line supervisor’s request. Assume all valves are leak tight.

**Attachment 6**  
**Tagout Request**  
(Sheet 1 of 1)

<b>NOTE: When this request is used, all sections should be filled out in detail.</b>		
AWO Number: <i>M3-07-00100</i>	Component: <i>3GWS-PIB</i>	
Brief Job Description: <i>Replace seal package</i>		
<b>Amplifying Instructions:</b> Tagging <input checked="" type="checkbox"/> IS NOT required for personal protection (circle one). <input checked="" type="checkbox"/> Isolate, vent and drain <input type="checkbox"/> Isolate and depressurize <input type="checkbox"/> Isolate flowpath through _____ <input checked="" type="checkbox"/> Other <i>tag out electrically also</i>		
<b>Recommended Tags</b>		
<b>Color</b>	<b>Isolation Point</b>	<b>Position<sup>(1)</sup></b>
	<b>CRITICAL ISOLATIONS</b>	
Red	<i>3GWS-V10 B Degasifier Recirc Pp Disch</i>	<i>CLOSED</i>
Red	<i>3GWS-V06 B Degasifier Recirc Pp Suction</i>	<i>CLOSED</i>
Red	<i>32-3H (2M) B Degasifier Recirc Pp</i>	<i>OFF</i>
	<i>"one" of the following vents</i>	
Red	<i>3GWS-V972 B Degasifier Recirc Pump Discharge Vent</i>	<i>OPEN</i>
Red	<i>3GWS-V98 B Degasifier Recirc Pump Strainer Test Point</i>	<i>OPEN</i>
<small>(1) For Blue Tags indicate initial position or if initial position is <i>not</i> required enter N/A.</small>		
<b>Contact Person</b> (for multiple shifts, Contact Person is required for each shift) <i>F. L. Supervisor</i>		<b>Phone:</b> <i>Ø123</i>
<b>Approved By:</b> _____ Team Leader / Planner / Engineering		<b>Date:</b> _____
		<b>Phone:</b> _____

**Level of Use Information**

STOP      THINK      ACT      REVIEW

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**Attachment 6**  
**Tagout Request**  
 (Sheet 1 of 1)

<b>NOTE: When this request is used, all sections should be filled out in detail.</b>		
AWO Number: <i>M3-07-00100</i>	Component: <i>3GWS-PIB</i>	
Brief Job Description: <i>Replace seal package</i>		
<b>Amplifying Instructions:</b> Tagging <u>(IS)</u> IS NOT required for personal protection (circle one). <input checked="" type="checkbox"/> Isolate, vent and drain <input type="checkbox"/> Isolate and depressurize <input type="checkbox"/> Isolate flowpath through _____ <input checked="" type="checkbox"/> Other <i>tag out electrically also</i>		
<b>Recommended Tags</b>		
<b>Color</b>	<b>Isolation Point</b>	<b>Position<sup>(1)</sup></b>
<i>Red</i>	<i>3GWS-V99 B Degasifier Recirc Pump Strainer Test Point</i>	<i>OPEN</i>
	<i>"one" of the following drains</i>	
<i>Red</i>	<i>3GWS-V107 B Degasifier Recirc Pump casing drain</i>	<i>OPEN</i>
<i>Red</i>	<i>3GWS-V105 B Degasifier Recirc Pump Suction Strainer Drain</i>	<i>OPEN</i>
<small>(1) For Blue Tags indicate initial position or if initial position is not required enter N/A.</small>		
<b>Contact Person</b> (for multiple shifts, Contact Person is required for each shift) <i>F. L. Supervisor</i>		<b>Phone:</b> <i>Ø123</i>
<b>Approved By:</b> _____ <small>Team Leader / Planner / Engineering</small>		<b>Date:</b> _____
_____ <b>Phone:</b> _____		

**Level of Use  
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**Attachment 6  
Tagout Request**  
(Sheet 1 of 1)

<b>NOTE: When this request is used, all sections should be filled out in detail.</b>		
AWO Number: <i>M3-07-00100</i>	Component: <i>3GWS-PIB</i>	
Brief Job Description: <i>Replace seal package</i>		
<b>Amplifying Instructions:</b> Tagging <input checked="" type="checkbox"/> IS NOT required for personal protection (circle one). <input checked="" type="checkbox"/> Isolate, vent and drain <input type="checkbox"/> Isolate and depressurize <input type="checkbox"/> Isolate flowpath through _____ <input checked="" type="checkbox"/> Other <i>tag out electrically also</i>		
<b>Recommended Tags</b>		
<b>Color</b>	<b>Isolation Point</b>	<b>Position<sup>(1)</sup></b>
	<i>NOT CRITICAL Component</i>	
<i>Red or Yellow</i>	<i>3GWS-PIB Control Switch (Gaseous Waste Panel)</i>	<i>OFF or Blank</i>
<small>(1) For Blue Tags indicate initial position or if initial position is not required enter N/A.</small>		
<b>Contact Person</b> (for multiple shifts, Contact Person is required for each shift) <i>F. L. Supervisor</i>		<b>Phone:</b> <i>Ø123</i>
<b>Approved By:</b> _____ <b>Phone:</b> _____ <small>Team Leader / Planner / Engineering</small>		<b>Date:</b> _____

**Level of Use  
Information**

STOP      THINK      ACT      REVIEW

WC 2  
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# JOB PERFORMANCE MEASURE APPROVAL SHEET

## SUMMARY OF CHANGE(S)

Date	Chg/Rev	Description
2/7/07	1/0	Modified JPM to require the candidate to respond to the Annunciator Response Procedure for RMS Trouble and to perform procedurally directed actions at the 3CMS*RE22 'RIC'. NRC Request. DLM
2/19/07	2/0	Added the requirement to override the CMS22 RIC equipment failure light to 'ON' in the simulator requirements section. Added a note and appropriate cue card for 'CMS22 Equipment Failure' at the RMS Alarm Display Monitor, if required. Added cues for alarm status indications that the applicant could observe on different RMS Console displays. DLM

## JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3

JPM ID Number: NRC RO A.3

Revision: 0 chg 2

Task Title: Actions and Expected Response for RMS Equipment failure Alarms

System: N/A

Time Critical Task: ( ) YES ( X ) NO

Validated Time (minutes): 10

Task Number(s): 073-01-043

Applicable To: SRO \_\_\_\_\_ RO X PEO \_\_\_\_\_

K/A Number: 2.3.1 K/A Rating: 2.6 / 3.0

Method of Testing: Simulated Performance: \_\_\_\_\_ Actual Performance: X

Location: Classroom: \_\_\_\_\_ Simulator: X In-Plant: \_\_\_\_\_

Task Standards: Correctly determines the required actions for an RMS Equipment failure Alarm.

Required Materials: OP 3362, Radiation Monitor Display and Control System (rev. 007-06)  
OP 3353.MB2B, "RMS TROUBLE" (2-9), rev 002-07

General References:

### \*\*\*READ TO THE STUDENT\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number:     NRC RO A.3    

Revision:     0 chg 2    

Simulator Requirements:      Reset to any 100% power certified IC. Insert Annunciator override MB2B B-9 to "ON". Override the CMS22 RIC equipment failure light to 'ON' (IO (RM) 3CMS\*RE22 Eqfail to 'ON').

Initial Conditions:            The plant is at 100% power and you are the Extra Licensed Operator on shift. MB2B 2-9 "RMS TROUBLE" has alarmed.

Initiating Cues:                The US has directed you to respond to the annunciator.

\*\*\*\* **NOTES TO EVALUATOR** \*\*\*\*

1. Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. The student's performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.3

Revision: 0 chg 2

Task Title: Actions and Expected Response for RMS Equipment failure Alarms

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

**STEP**       1       \_\_\_\_\_     **Performance Step:**     Obtain proper Annunciator Response Procedure.

**GRADE**     \_\_\_\_\_     \_\_\_\_\_     **Standards:**     Obtains OP 3353.MB2B and refers to "RMS TROUBLE" (2-9).

**Grade:**                             **SAT**                             **UNSAT**

**Evaluator NOTE:**             The applicant may refer to the RMS alarm display monitor on the RO/BOP desk to determine alarm source. If so, provide **cue card #1** and verbally give the following cue:

**CUE:**                             The screen displays the following events:

**STEP**       2       \_\_\_\_\_     **Performance Step:**     DETERMINE the cause of RMS trouble indication at RMS Control Room Operator Console.  
OP 3353.MB2B 2-9  
Step 1

**GRADE**     \_\_\_\_\_     \_\_\_\_\_     **Standards:**     Applicant proceeds to the RMS Console. If the applicant observes the bottom of the monitor screen to determine the specific alarm, provide **cue card #2** and verbally give the following cue:

**CUE:**                             The yellow alarm line displays the following events:

**Evaluator NOTE:**             Any active RMS alarm will show up at the bottom of the RMS console monitor screen, regardless of what else is displayed.

**GRADE**     \_\_\_\_\_     \_\_\_\_\_     **Standards:**     Applicant proceeds to the RMS Console and calls up the status grid function and/or data base for 3 CMS\*RE22 and determines that 'filter step' is in alarm.

**Evaluator NOTE:**             On the status grid function, all the RMUs are shown with a corresponding number that indicates monitor status. '3' correlates

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.3

Revision: 0 chg 2

Task Title: Actions and Expected Response for RMS Equipment failure Alarms

to an equipment failure. If applicant calls up status grid, provide the following cue:

**CUE:** A blue '3' is displayed for CMS22 2 monitor status.

**Evaluator NOTE:** On the 3CMS\*RE22 particulate database display, top right, there is indication of whether the RMU is online, reachable and if there are any alarms in. When the applicant calls up the database display and observes the top right of the screen, provide the following cue:

**CUE:** Screen shows a yellow 'ALARM'.

**Evaluator NOTE:** On the 3CMS\*RE22 particulate database display, there is an equipment failure column. When the applicant observes the equipment failure column, provide the following cue:

**CUE:** Filter step indicates 'yes' and is yellow for alarm status.

**Grade:** **SAT** **UNSAT**

**STEP** 3 \_\_\_\_\_

**Performance Step:**  
OP 3353.MB2B 2-9  
Step 2

IF alarm is due to equipment failure, Refer To OP 3362, "Radiation Monitor System Display and Control," and TAKE required actions for equipment failure alarms.

**GRADE** \_\_\_\_\_

**Standards:**

Applicant obtains and refers to OP 3362, Section 4.13, Equipment Failure Alarms.

**Grade:** **SAT** **UNSAT**

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.3

Revision: 0 chg 2

Task Title: Actions and Expected Response for RMS Equipment failure Alarms

<b>STEP</b>	<u>4</u>	<u>X</u>	<b>Performance Step:</b> OP 3362, Section 4.13 Step 4.13.1.a	Refer To Attachment 6 and PERFORM the following:  CHECK monitor number is listed.
<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	Applicant refers to OP 3362, Attachment 6 and verifies that 3CMS*RE22 is listed.
			<b>Grade:</b>	<b>SAT</b> <b>UNSAT</b>
<b>STEP</b>	<u>5</u>	<u>X</u>	<b>Performance Step:</b> OP 3362, Section 4.13 Step 4.13.1.b	IF monitor is listed, DETERMINE applicable "Trouble Response(s)."
<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	Applicant refers to Attachment 6 and determines that for 3CMS*22, trouble responses 1, 2, 3, 6, 7, 10, and 12 are required.
			<b>Grade:</b>	<b>SAT</b> <b>UNSAT</b>
<b>STEP</b>	<u>6</u>	_____	<b>Performance Step:</b> OP 3362, Section 4.13 Step 4.13.1.c	PERFORM applicable Trouble Response(s)" listed.
<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant refers to Attachment 6 begins to perform the identified responses.
			<b>Evaluators NOTE:</b>	The applicant may ask whether the US desires him/her to perform the applicable trouble responses. If so, provide the following cue:
			<b>CUE (if required):</b>	Yes, perform the applicable trouble responses.
			<b>Grade:</b>	<b>SAT</b> <b>UNSAT</b>

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.3

Revision: 0 chg 2

Task Title: Actions and Expected Response for RMS Equipment failure Alarms

<b>STEP</b>	<u>7</u>		<b>Performance Step:</b> OP 3362, Att 6 Action 1.	NOTIFY Instrument and Control Department to check monitor.
<b>GRADE</b>			<b>Standards:</b>	Applicant notifies I & C that 3CMS*RE22 has an equipment failure alarm and to check the monitor. Telephone call is adequate for this notification.
			<b>CUE:</b>	All notifications to I & C are complete.
			<b>Grade:</b>	<b>SAT</b> <b>UNSAT</b>
<b>STEP</b>	<u>8</u>		<b>Performance Step:</b> OP 3362, Att 6 Action 2.	NOTIFY Health Physics Department for area monitoring and sampling.
<b>GRADE</b>			<b>Standards:</b>	Applicant notifies Health Physics that 3CMS*RE22 has an equipment failure alarm and to conduct necessary monitoring and sampling. Telephone call is adequate for this notification.
			<b>CUE:</b>	All notifications to Health Physics are complete.
			<b>Grade:</b>	<b>SAT</b> <b>UNSAT</b>
<b>STEP</b>	<u>9</u>		<b>Performance Step:</b> OP 3362, Att 6 Action 3.	NOTIFY Chemistry Department for sampling medium.
<b>GRADE</b>			<b>Standards:</b>	Applicant notifies Chemistry Department that 3CMS*RE22 has an equipment failure alarm and to ready appropriate sampling medium. Telephone call is adequate for this notification.
			<b>CUE:</b>	All notifications to Chemistry are complete.
			<b>Grade:</b>	<b>SAT</b> <b>UNSAT</b>

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.3

Revision: 0 chg 2

Task Title: Actions and Expected Response for RMS Equipment failure Alarms

<b>STEP</b>	<u>10</u>	<u>X</u>	<b>Performance Step:</b> OP 3362, Att 6 Action 6.	IF a filter step alarm is recorded, ATTEMPT to step the filter as follows: Safety related Monitor (CMS*22): 1. At the appropriate KERIC, TURN the keyswitch to "ENABLE." 2. PRESS "STP -2 ENT." 3. TURN keyswitch to "DISABLE."
<b>GRADE</b>	_____	_____	<b>Standards:</b>	<p>Inform the US that an attempt must be made to step the 3CMS*22 filter at the 'RIC'.</p> <p><b>CUE (if required):</b> As US, direct the Applicant to attempt to step the filter.</p> <p><b>Grade:</b>                      <b>SAT</b>                      <b>UNSAT</b></p>
<b>GRADE</b>	_____	_____	<b>Standards:</b>	<p>Applicant obtains the key from the simulator key locker for 3CMS*22 and proceeds to the 3CMS*22 'RIC'.</p> <p><b>Grade:</b>                      <b>SAT</b>                      <b>UNSAT</b></p>
<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	<p>At the 3CMS*22 'RIC', applicant inserts the key and turns the keyswitch to "ENABLE."</p> <p><b>Grade:</b>                      <b>SAT</b>                      <b>UNSAT</b></p>
<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	<p>On the 'RIC' keyboard, applicant presses 'STP' (step), followed by '2', followed by 'ENT' (enter).</p> <p><b>Grade:</b>                      <b>SAT</b>                      <b>UNSAT</b></p>
<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	<p>At the 3CMS*22 'RIC', applicant turns the keyswitch to "DISABLE", removes and returns the key to the key locker.</p> <p><b>Comment:</b>                      Removing and returning the key is not part</p>

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.3

Revision: 0 chg 2

Task Title: Actions and Expected Response for RMS Equipment failure Alarms

		<b>Grade:</b>		of the critical nature of this step.	
				<b>SAT</b>	<b>UNSAT</b>
<b>STEP</b>	<u>11</u>	<u>X</u>	<b>Performance Step:</b>	IF the filter step alarm clears, the monitor may be considered OPERABLE with respect to the filter paper. IF another filter step alarm is recorded, the particulate channel is not OPERABLE. REQUEST I&C to repair.	
<b>GRADE</b>	<u>    </u>	<u>X</u>	<b>Standards:</b>	Applicant proceeds to the RMS Console and calls up the status grid function or data base for 3 CMS*RE22 and determines that 'filter step' is still in alarm.	
			<b>CUE:</b>	As observed, inform the applicant that the CMS22 RIC equipment failure alarm light is still lit, the filter step alarm still indicates 'YES' and/or the CMS22 2 monitor status on status grid still indicates a '3'.	
			<b>Evaluators NOTE:</b>	If the applicant observes the bottom of the monitor screen to determine if the alarm still exists, provide <b>cue card #2</b> and verbally give the following cue:	
			<b>CUE:</b>	The yellow alarm line displays the following events:	
			<b>Grade:</b>	<b>SAT</b>	<b>UNSAT</b>
<b>GRADE</b>	<u>    </u>	<u>X</u>	<b>Standards:</b>	Informs the US that the particulate channel of 3CMS*22 must be considered INOPERABLE.	
			<b>CUE:</b>	As US, acknowledge the applicant's report.	
			<b>Grade:</b>	<b>SAT</b>	<b>UNSAT</b>

## PERFORMANCE INFORMATION

JPM Number: NRC RO A.3

Revision: 0 chg 2

Task Title: Actions and Expected Response for RMS Equipment failure Alarms

<b>STEP</b>	<u>12</u>	_____	<b>Performance Step:</b> OP 3362, Att 6 Action 7.	IF a radiation monitor indicates "OFF-LINE," DECLARE the radiation monitor INOPERABLE and LOG into all applicable LCOs.
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<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant proceeds to the RMS Console and calls up the status grid function or data base for 3CMS*RE22 and determines that the Rad Monitor does not indicate "OFF-LINE."
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<b>Grade:</b>	<b>SAT</b>	<b>UNSAT</b>
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<b>STEP</b>	<u>13</u>	<u>X</u>	<b>Performance Step:</b> OP 3362, Att 6 Action 10.	Refer To T/S 3.3.3.1 and Table 3.3-6, "Radiation Monitoring Instrumentation for Plant Operations," and PERFORM applicable actions.
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<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	Applicant informs the US that T/S 3.3.3.1, "Radiation Monitoring Instrumentation for Plant Operations," must be referred to.
			<b>CUE :</b>	Acknowledge the applicant's report and reply that the US will refer to T/S 3.3.3.1.

<b>Grade:</b>	<b>SAT</b>	<b>UNSAT</b>
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<b>STEP</b>	<u>14</u>	<u>X</u>	<b>Performance Step:</b> OP 3362, Att 6 Action 12.	Refer To T/S 3.4.6.1, "Reactor Coolant System Leakage Detection Systems," and PERFORM applicable actions.
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<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	Applicant informs the US that "T/S 3.4.6.1, "Reactor Coolant System Leakage Detection Systems," must be referred to.
			<b>CUE :</b>	Acknowledge the applicant's report and reply that the US will refer to T/S 3.4.6.1.

<b>Grade:</b>	<b>SAT</b>	<b>UNSAT</b>
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## PERFORMANCE INFORMATION

JPM Number: NRC RO A.3

Revision: 0 chg 2

Task Title: Actions and Expected Response for RMS Equipment failure Alarms

**STEP** 15        **Performance Step:** Applicant Reports Task Completion.

**GRADE**               **Standards:** Applicant reports to the US that the applicable trouble responses have been performed.

**CUE:** **The evaluation for this JPM is complete.**

Stop Time:

## VERIFICATION OF JPM COMPLETION

JPM Number:     NRC RO A.3    

Revision:     0 chg 2    

Date Performed: \_\_\_\_\_

Student: \_\_\_\_\_

Evaluator: \_\_\_\_\_

For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task?                      YES \_\_\_\_\_ NO   X  

Validated Time (minutes):                  10    

Actual Time to Complete (minutes):    \_\_\_\_\_

Result of JPM:                              \_\_\_\_\_ ("S" for satisfactory, "U" for unsatisfactory)

Result of oral questions (if applicable):

Number of Questions:                      \_\_\_\_\_

Number of Correct Responses:            \_\_\_\_\_

Score:    \_\_\_\_\_

Areas for Improvement:

# STUDENT HANDOUT

**JPM Number:**                        NRC RO A.3    

**Initial Conditions:**            The plant is at 100% power and you are the Extra Licensed Operator on shift. MB2B 2-9 "RMS TROUBLE" has alarmed.

**Initiating Cues:**                The US has directed you to respond to the annunciator.

Today Now CMS22 2 \*\*\*AUXILIARY EQUIPMENT FAILURE.

Today Now CMS22 2 \*\*\*FILTER MECHANISM STEP FAILURE.

CMS22 2 AUXILIARY EQUIPMENT FAILURE, CMS22 2 FILTER  
MECHANISM STEP FAILURE.



# JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

## SUMMARY OF CHANGE(S)

<b>Date</b>	<b>Chg/Rev</b>	<b>Description</b>
2/16/07	1/0	Updated the JPM to revision 004-02 to SP 3601F.3-001. DLM

## JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3

JPM ID Number: NRC SRO A.1.1

Revision: 0 chg 1

Task Title: Review a Surveillance form for RCS Leakage-Controlled Leakage to RCP Seals

System: ADMIN

Time Critical Task: ( ) YES ( X ) NO

Validated Time (minutes): 5 min

Task Number(s): 119-03-003, Determine if plant operation is outside of T.S. administrative control Limits

Applicable To: SRO X RO \_\_\_\_\_ PEO \_\_\_\_\_

K/A Number: 2.1.7 K/A Rating: 4.4

Method of Testing: Simulated Performance: \_\_\_\_\_ Actual Performance: X

Location: Classroom: X Simulator: \_\_\_\_\_ In-Plant: X

Task Standards: Review and disposition surveillance form for Controlled leakage to the RCP Seals

Required Materials: Completed OPS form 3601F.3, RCS Leakage- controlled Leakage to RCP Seals,

General References: OPS form 3601F.3, RCS Leakage- controlled Leakage to RCP Seals, Unit 3 Technical Specifications

### \*\*\*READ TO THE STUDENT\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: NRC SRO A.1.1

Revision: 0 chg 1

Simulator Requirements: none

Initial Conditions: The plant is at 100% power, steady state. You are the Unit Supervisor on shift. Charging Pumps have just been shifted from the "A" CHS Pump running to the "B" CHS Pump running. The Reactor Operator has just completed SP 3601F.3, RCS Leakage- Controlled Leakage to RCP Seals, as part of the Charging Pump shift.

Initiating Cues: Review and disposition the completed SP 3601F.3, RCS Leakage- Controlled Leakage to RCP Seals, surveillance.

### \*\*\*\* NOTES TO EVALUATOR \*\*\*\*

1. Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

## PERFORMANCE INFORMATION

JPM Number:   NRC SRO A.1.1  

Revision:   0 chg 1  

Task Title:   Review a Surveillance form for RCS Leakage-Controlled Leakage to RCP Seals  

Start Time:           

**STEP**       1                      **Performance Step:** Review if test conditions were established.

**GRADE**                                   **Standards:**             Applicant reviews the Test Conditions Established section, and observes the test position of 3CHS\*HCV182 is recorded as full open as required.

**Grade:**             **SAT**                            **UNSAT**               

**GRADE**                                   **Standards:**             Applicant observes that RCS pressure is recorded between the range of 2,230 to 2,270 as required.

**Grade:**             **SAT**                            **UNSAT**               

**STEP**       2                      **Performance Step:** Review the Flow Data.

**GRADE**                                   **Standards:**             Applicant observes that seal injection flow data is recorded for all four RCPs.

**Grade:**             **SAT**                            **UNSAT**               

**STEP**       3         X       **Performance Step:** Calculation and Verification of Controlled Leakage.

**GRADE**                      X       **Standards:**             Compares the seal injection flow data taken in the 'Flow Data' section to the T/S acceptance criteria (< or = 40 gpm) and notes that combined seal injection flow is greater than 40 gpm.

**Evaluator NOTE:**     There is a math error in the seal flow rate addition and actual combined flow is 40.2 gpm.

**Grade:**             **SAT**                            **UNSAT**

# PERFORMANCE INFORMATION

JPM Number: NRC SRO A.1.1

Revision: 0 chg 1

Task Title: Review a Surveillance form for RCS Leakage-Controlled Leakage to RCP Seals

**GRADE**                X      **Standards:**    Notes or otherwise verbalizes that Controlled Leakage T/S acceptance criteria is NOT satisfied.

**Grade:**    **SAT**              **UNSAT**          

**Comments:**    The signing of the coversheet is not required to satisfy the critical nature of this step.

**STEP**      4        X      **Performance Step:**    IF data is not acceptable, Refer To the (SP 3601F.3, step 4.11)    applicable Technical Specification(s) and PERFORM applicable ACTION.

**GRADE**                X      **Standards:**    Refers to 3.4.6.2.e and enters ACTION STATEMENT "b"

**Evaluator NOTE:**    Applicant can either verbalize intention of entering T/S or record as such in a rough log.

**Grade:**    **SAT**              **UNSAT**          

**Comments:**

**Termination Cue:** The Evaluation of this JPM is Complete.    Stop Time:

## VERIFICATION OF JPM COMPLETION

JPM Number: NRC SRO A.1.1

Revision: 0 chg 1

Date Performed: \_\_\_\_\_

Student: \_\_\_\_\_

Evaluator: \_\_\_\_\_

For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? YES \_\_\_\_\_ NO X

Validated Time (minutes): 5 min

Actual Time to Complete (minutes): \_\_\_\_\_

Result of JPM: \_\_\_\_\_ ("S" for satisfactory, "U" for unsatisfactory)

Result of oral questions (if applicable):

Number of Questions: \_\_\_\_\_

Number of Correct Responses: \_\_\_\_\_

Score: \_\_\_\_\_

Areas for Improvement:

## STUDENT HANDOUT

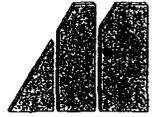
**JPM Number:** SRO A.1.1

**Initial Conditions:** The plant is at 100% power, steady state. You are the Unit Supervisor on shift. Charging Pumps have just been shifted from the "A" CHS Pump running to the "B" CHS Pump running. The Reactor Operator has just completed SP 3601F.3, RCS Leakage- Controlled Leakage to RCP Seals, as part of the Charging Pump shift.

**Initiating Cues:** Review and disposition the completed SP 3601F.3, RCS Leakage- Controlled Leakage to RCP Seals, surveillance.

**Form Approval**Approval Date **DEC 04 2006**Effective Date **DEC 12 2006**

# Surveillance Form

**Generic Information**

Form Title <b>RCS Leakage – CONTROLLED LEAKAGE to RCP Seals</b>			Rev. No. <b>004-02</b>
Reference Procedure <b>SP 3601F.3</b>	Applicable Tech. Spec. <b>T/S 4.4.6.2.1.c</b>	Applicability (Tech. Spec.) <b>MODES 1, 2, 3** and 4**</b>	Frequency <b>M*</b>

**Specific Information**

Schedule Start Date	AWO Number	Mntc Restoration <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Performance MODES <b>1, 2, 3 and 4</b>	Prerequisites Completed (Initials) <b>CO</b>	Precautions Noted (Initials) <b>CO</b>
Test Authorized By <b>Shift Manager</b>	Date <b>3/12/7</b>	Partial Surveillance <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Performed By <b>Control Room Operator</b>	Date <b>3/12/7</b>	Acceptance Criteria Satisfied <input type="checkbox"/> Yes <input type="checkbox"/> No
Accepted By	Date	
Approved By (Department Head or Designee)	Date	

**Surveillance Information**

Test Equipment Type	QA Number	Cal Due Date

**Comments**

CR# \_\_\_\_\_

\* Required when system flow characteristics are changed (i.e. replaced seal injection filter).

\*\* The provisions of T/S 4.04 are not applicable for entry into MODE 3 or 4.

## RCS Leakage – CONTROLLED LEAKAGE to RCP Seals

Test Conditions Established			
Step No.	Parameter	Required Condition	Data
4.2.1 or 4.3.1	Initial position of 3CHS*HCV182, Seal Injection Modulating Valve		100% open
4.2.1 or 4.3.3	Test position of 3CHS*HCV182, Seal Injection Modulating Valve	Full Open (100%)	100% open
4.4	RCS pressure (RCS-PI 455A) or RCS-PI 457 <small>(Circle instrument used)</small>	2,230 to 2,270 psia	2260

Flow Data			
Step No.	Parameter	Instrument	Data
4.5	Loop 1 RCP Seal Injection	CHS-FI 145A	9.8
	Loop 2 RCP Seal Injection	CHS-FI 144A	10.4
	Loop 3 RCP Seal Injection	CHS-FI 143A	9.9
	Loop 4 RCP Seal Injection	CHS-FI 142A	10.1

CONTROLLED LEAKAGE Calculation and Verification				
Step No.	Parameter	Data	T/S Acceptance Criteria	Criteria Met
4.6	Combined Seal Injection Flow (Sum of Loops 1, 2, 3 and 4)	39.2	≤ 40 gpm	Sat/Unsat

Restoration		
Step No.	Parameter	Data
4.8	Final position of 3CHS*HCV182, Seal Injection Modulating Valve	100% open



# JOB PERFORMANCE MEASURE APPROVAL SHEET

## SUMMARY OF CHANGE(S)

<b>Date</b>	<b>Chg/Rev</b>	<b>Description</b>
2/7/07	1/0	Modified JPM to delete remaining steps after the last critical step (step 7). NRC Request.
2/19/07	2/0	Added a note and cue, that if the applicant refers to C OP 200.3, <i>Response to Medical Emergencies</i> , that the SM already has it in progress. DLM

## JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3

JPM ID Number: NRC SRO A.1.2

Revision: 0 chg 2

Task Title: Notifications and Reportability.

System: N/A

Time Critical Task: ( ) YES ( X ) NO

Validated Time (minutes): 10

Task Number(s): 301-05-366

Applicable To: SRO X RO        PEO       

K/A Number: 2.1.6 K/A Rating: 4.3

Method of Testing: Simulated Performance:        Actual Performance: X

Location: Classroom: X Simulator:        In-Plant:       

Task Standards: Determine the proper notifications and event reporting requirements given a particular event.

Required Materials: RAC 14, *Non-Emergency Station Events*

General References: RAC 05, *Reportability Determinations and Licensee Event Reports*  
10CFR50.72 / .73

**\*\*\*READ TO THE STUDENT\*\*\***

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number:     NRC SRO A.1.2    

Revision:     0 chg 2    

Simulator Requirements:   None

Initial Conditions:           The plant is at 100% power, and you are the Extra Senior Licensed Operator on shift. 10 minutes ago, a maintenance technician was injured while working in a contaminated area in the Waste Disposal Building. The work area has been placed in a safe condition. The worker's injuries are severe and treatment is required at Lawrence and Memorial hospital. The worker is also contaminated. The worker is stabilized, ready for transport and the ambulance is enroute.

Initiating Cues:               The SM has directed you to determine the NRC and State reporting requirements associated with this event.

### \*\*\*\* NOTES TO EVALUATOR \*\*\*\*

1. Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. The student's performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

## PERFORMANCE INFORMATION

JPM Number:   NRC SRO A.1.2  

Revision:   0 chg 2  

Task Title:   Notifications and Reportability.  

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

<b>STEP</b>	<u>  1  </u>		<b>Performance Step:</b>	Obtains proper procedure.
<b>GRADE</b>	_____	_____	<b>Standards:</b>	Obtains and refers to a copy of RAC 14, <i>Non-Emergency Station Events</i> .
			<b>Grade:</b>	<b>SAT</b> _____ <b>UNSAT</b> _____
			<b>Evaluator NOTE:</b>	The applicant may refer to C OP 200.3, <i>Response to Medical Emergencies</i> . If so, provide the following cue:
			<b>CUE:</b>	The SM is carrying out the actions specified in C OP 200.3.

<b>STEP</b>	<u>  2  </u>		<b>Performance Step:</b>	Review Precautions. RAC 14, Section 3
<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant reviews precautions 3.1 through 3.8.
			<b>Grade:</b>	<b>SAT</b> _____ <b>UNSAT</b> _____

<b>STEP</b>	<u>  3  </u>		<b>Performance Step:</b>	<b>Initial Event Reportability Determination</b> IF sufficient cause exists for reporting a non-emergency event, PERFORM the following:
				a. ANALYZE available information and DEVELOP a general understanding of event in progress.
<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant recognizes that cause exists for reporting this event.
			<b>Evaluator NOTE:</b>	If the applicant requests additional event related information beyond the initial conditions provide the following cue:
			<b>CUE:</b>	A representative from Site Fire Protection and Health physics will brief you shortly on





PERFORMANCE INFORMATION

JPM Number: NRC SRO A.1.2

Revision: 0 chg 2

Task Title: Notifications and Reportability.

GRADE \_\_\_\_\_ Standards: Applicant correctly determines the State posture code for the event is an "Echo".

Grade: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

GRADE \_\_\_\_\_ X Standards: Applicant correctly determines the State Reporting Requirement for the event is as follows:

**"Within 1 hour of report to NRC"**  
(State Reg. 22a-135-1)

Grade: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

**CUE: The Emergency Communicator will prepare and send the Non Emergency Event Report and the Station Duty Officer will complete the remaining required notifications.  
The evaluation for this JPM is complete.**

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

## VERIFICATION OF JPM COMPLETION

JPM Number: NRC SRO A.1.2

Revision: 0 chg 2

Date Performed: \_\_\_\_\_

Student: \_\_\_\_\_

Evaluator: \_\_\_\_\_

For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? YES \_\_\_\_\_ NO X

Validated Time (minutes): 10

Actual Time to Complete (minutes): \_\_\_\_\_

Result of JPM: \_\_\_\_\_ ("S" for satisfactory, "U" for unsatisfactory)

Result of oral questions (if applicable):

Number of Questions: \_\_\_\_\_

Number of Correct Responses: \_\_\_\_\_

Score: \_\_\_\_\_

Areas for Improvement:

## STUDENT HANDOUT

**JPM Number:** NRC SRO A.1.2

**Initial Conditions:** The plant is at 100% power, and you are the Extra Senior Licensed Operator on shift. 10 minutes ago, a maintenance technician was injured while working in a contaminated area in the Waste Disposal Building. The work area has been placed in a safe condition. The worker's injuries are severe and treatment is required at Lawrence and Memorial hospital. The worker is also contaminated. The worker is stabilized, ready for transport and the ambulance is enroute.

**Initiating Cues:** The SM has directed you to determine the NRC and State reporting requirements associated with this event.



# JOB PERFORMANCE MEASURE APPROVAL SHEET

## SUMMARY OF CHANGE(S)

<b>Date</b>	<b>Chg/Rev</b>	<b>Description</b>
2/7/07	1/0	Modified the JPM to require the candidate to maintain a rough log of all necessary compensatory actions.
2/19/07	2/0	Added that all Service Building and Auxiliary Building fire detectors are operable, and that sliding tornado door A-24-4A will remain undisturbed to the initiating cue. Also added to the initiating cue that TS/TRM actions should be put in the rough log. Added a note to give guidance to the evaluator for an applicant that logs door attributes that do not apply to door A-24-4. Added a JPM Key that lists the appropriate compensatory actions. Added a note to the evaluator that the rough log should substantially match the JPM attachment (SRO A.2 Key). DLM

## JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3

JPM ID Number: NRC SRO A.2

Revision: 0 chg 2

Task Title: Response to Door Inoperability.

System: N/A

Time Critical Task: ( ) YES ( X ) NO

Validated Time (minutes): 20

Task Number(s): 341-01-014

Applicable To: SRO X RO \_\_\_\_\_ PEO \_\_\_\_\_

K/A Number: 2.2.21 K/A Rating: 2.3 / 3.5

Method of Testing: Simulated Performance: \_\_\_\_\_ Actual Performance: X

Location: Classroom: X Simulator: \_\_\_\_\_ In-Plant: \_\_\_\_\_

Task Standards: Correctly determine the required actions for an INOPERABLE MP3 door.

Required Materials: OP 3261, Response to Door Inoperability

General References: Unit 3 Technical Specifications, Technical Requirements

### \*\*\*READ TO THE STUDENT\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number:     NRC SRO A.2    

Revision:     0 chg 2    

Simulator Requirements:   None

Initial Conditions:           The plant is at 100 % power and you are the Work Control SRO on shift. An emergent repair is required on the "A" RPCCW Heat Exchanger. Maintenance requires door A-24-4 be blocked open and have its center post removed, to move in equipment and scaffolding.

Initiating Cues:               You are asked to determine any compensatory actions necessary before blocking open door A-24-4. All Service Building and Auxiliary Building fire detectors are operable. Sliding tornado door A-24-4A will remain undisturbed. Maintain a rough log of all applicable Tech Spec actions, TRM actions and necessary compensatory actions.

### \*\*\*\* NOTES TO EVALUATOR \*\*\*\*

1. Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

## PERFORMANCE INFORMATION

JPM Number: NRC SRO A.2

Revision: 0 chg 2

Task Title: Response to Door Inoperability

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

**STEP**    1    \_\_\_\_\_    **Performance Step:**    Obtains copy of OP 3261 "Response to Door Inoperability".

**GRADE**    \_\_\_\_\_    \_\_\_\_\_    **Standards:**    Obtains proper procedure.

**Grade:**    **SAT**    \_\_\_\_\_    **UNSAT**    \_\_\_\_\_

**STEP**    2    X    **Performance Step:**    Refer To Attachment 2, "Unit 3 Door Attributes," and DETERMINE applicable attributes to door in question.

**GRADE**    \_\_\_\_\_    X    **Standards:**    Applicant refers to Attachment 2 and determines and logs that for door A-24-4, the following attributes apply:

- TRM Fire Door
- Locked TRM Fire Door
- SLCRS Door
- Radiation Door

**Grade:**    **SAT**    \_\_\_\_\_    **UNSAT**    \_\_\_\_\_

**STEP**    3    \_\_\_\_\_    **Performance Step:**    For doors listed as "Dual Train Protected Door," both trains are potentially impacted. A door with a D attribute will also have one or more other attributes. IF the compensatory actions of this procedure for the other attributes are met, train separation is not an issue ...

**GRADE**    \_\_\_\_\_    \_\_\_\_\_    **Standards:**    Applicant recognizes that door A-24-4 is NOT a Dual Train Protection Door, and moves on to OP 3261, step 1.3.

**Grade:**    **SAT**    \_\_\_\_\_    **UNSAT**    \_\_\_\_\_

## PERFORMANCE INFORMATION

JPM Number:   NRC SRO A.2  

Revision:   0 chg 2  

Task Title:   Response to Door Inoperability  

**STEP**        4          X        **Performance Step:**      IF one of the following types of doors is not capable of performing its intended function, PERFORM the specified actions:

OP 3261, step 1.3.1

IF door is a "TRM Related Fire Door," PERFORM the following:

- Refer To TRM 3.7.13, "Fire Protection Systems, Fire Rated Assemblies," and PERFORM applicable actions.
- Refer To the Shift Turnover Log and RECORD door status.
- NOTIFY the Site Fire Protection Department.

**GRADE**      \_\_\_\_\_        X        **Standards:**      Applicant recognizes that door A-24-4 is a TRM Related Fire Door and obtains and refers to TRM 3.7.13, "Fire Protection Systems, Fire Rated Assemblies,"

**Grade:**      **SAT** \_\_\_\_\_      **UNSAT** \_\_\_\_\_

**GRADE**      \_\_\_\_\_        X        **Standards:**      Recognizes that TRM 3.7.13 applies and logs into LCO 3.7.13, ACTION a. (1 hour allowed outage time)

**Grade:**      **SAT** \_\_\_\_\_      **UNSAT** \_\_\_\_\_

**GRADE**      \_\_\_\_\_      \_\_\_\_\_      **Standards:**      Applicant logs in rough log that door A-24-4 will be blocked open and needs to be recorded in the Shift Turnover Log.

**Evaluator NOTE:**      The requirement to record door status in the Rough Log need only be done once.

**Grade:**      **SAT** \_\_\_\_\_      **UNSAT** \_\_\_\_\_

**GRADE**      \_\_\_\_\_      \_\_\_\_\_      **Standards:**      Applicant notifies Site Fire Protection Department that door A-24-4 will be blocked open. Telephone call is adequate for this notification.

**CUE:**      All notifications to Site Fire Protection are complete.

**Grade:**      **SAT** \_\_\_\_\_      **UNSAT** \_\_\_\_\_

## PERFORMANCE INFORMATION

JPM Number: NRC SRO A.2

Revision: 0 chg 2

Task Title: Response to Door Inoperability

**STEP**     5     \_\_\_\_\_     **Performance Step:**     IF door is a "Locked TRM Related Fire Door," PERFORM the following:

OP 3261, step 1.3.2

- Refer To TRM 3.7.13, "Fire Protection Systems, Fire Rated Assemblies," and PERFORM applicable actions.
- Refer To the Shift Turnover Log and RECORD door status.
- IF the only action performed is to unlock door to provide temporary access ....
- NOTIFY the Site Fire Protection Department.

**GRADE**     \_\_\_\_\_     \_\_\_\_\_     **Standards:**     Applicant recognizes door A-24-4 is a Locked TRM Related Fire Door, and that the door will NOT be just unlocked to provide temporary access. Also recognizes that the other actions specified are redundant to the previous step.

**Grade:**     **SAT** \_\_\_\_\_     **UNSAT** \_\_\_\_\_

**STEP**     6     \_\_\_\_\_     **Performance Step:**     IF door is a non-TRM fire door, NOTIFY the Site Fire Protection Department.

OP 3261, step 1.3.3

**GRADE**     \_\_\_\_\_     \_\_\_\_\_     **Standards:**     Applicant recognizes that door A-24-4 is not a non-TRM Fire Door and moves on to OP 3261, step 1.3.4.

**Grade:**     **SAT** \_\_\_\_\_     **UNSAT** \_\_\_\_\_

## PERFORMANCE INFORMATION

JPM Number:   NRC SRO A.2  

Revision:   0 chg 2  

Task Title:   Response to Door Inoperability  

<b>STEP</b>	<u>  7  </u>	<u>  X  </u>	<b>Performance Step:</b> OP 3261, step 1.3.4	<p>IF door is a SLCRS door, PERFORM the following:</p> <ol style="list-style-type: none"> <li>a. Refer To T/S 3.6.6.2, "Containment Systems Secondary Containment," and PERFORM applicable actions.</li> <li>b. Refer To the Shift Turnover Log and RECORD door status.</li> <li>c. IF SLCRS door A-24-6 is inoperable AND crediting stairwell boundaries is desired, Refer To Attachment 3 and PERFORM listed actions to credit alternate barriers.</li> <li>d. IF alternate barriers are successfully credited, Refer To T/S 3.6.6.2, "Containment Systems Secondary Containment," for continued applicability and actions.</li> </ol>
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<b>GRADE</b>	_____	<u>  X  </u>	<b>Standards:</b>	<p>Applicant recognizes that door A-24-4 is a SLCRS Door and obtains and refers to T/S 3.6.6.2, "Containment Systems Secondary Containment."</p>
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<b>Grade:</b>	<b>SAT</b> _____	<b>UNSAT</b> _____
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<b>GRADE</b>	_____	<u>  X  </u>	<b>Standards:</b>	<p>Recognizes that T/S 3.6.6.2 applies and logs into LCO 3.6.6.2 ACTION. (24 hour allowed outage time)</p>
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<b>Grade:</b>	<b>SAT</b> _____	<b>UNSAT</b> _____
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<b>GRADE</b>	_____	_____	<b>Standards:</b>	<p>Applicant recognizes that alternate SLCRS barriers apply only to door A-24-6 and moves on to OP 3261, step 1.3.5.</p>
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<b>Grade:</b>	<b>SAT</b> _____	<b>UNSAT</b> _____
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<b>STEP</b>	<u>  8  </u>	_____	<b>Performance Step:</b> OP 3261, step 1.3.5	<p>IF door is a Control Room habitability door, PERFORM the following:</p>
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<b>GRADE</b>	_____	_____	<b>Standards:</b>	<p>Applicant recognizes that door A-24-4 is</p>
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## PERFORMANCE INFORMATION

JPM Number: NRC SRO A.2

Revision: 0 chg 2

Task Title: Response to Door Inoperability

<b>STEP</b>	<u>12</u>	_____	<b>Performance Step:</b> OP 3261, step 1.3.9	IF door is a PRA HELB boundary door AND IF in MODEs 1 through 4, PERFORM the following:
<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant recognizes that door A-24-4 is not a PRA HELB boundary door and moves on to OP 3261, step 1.3.10.
			<b>Grade:</b>	<b>SAT</b> _____ <b>UNSAT</b> _____
<b>STEP</b>	<u>13</u>	_____	<b>Performance Step:</b> OP 3261, step 1.3.10	IF door is a tornado door ....
<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant recognizes that door A-24-4 is not a tornado door and moves on to OP 3261, step 1.3.11.
			<b>Grade:</b>	<b>SAT</b> _____ <b>UNSAT</b> _____
<b>STEP</b>	<u>14</u>	<u>X</u>	<b>Performance Step:</b> OP 3261, step 1.3.11	IF door is a radiation boundary door, AND door is damaged OR to be removed for any reason, NOTIFY Health Physics Department.
<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	Applicant recognizes that door A-24-4 is a radiation boundary door and notifies Health Physics Department that door A- 24-4 will be blocked open. Telephone call is adequate for this notification.
			<b>CUE:</b>	All notifications to Health Physics are complete.
			<b>Grade:</b>	<b>SAT</b> _____ <b>UNSAT</b> _____

## PERFORMANCE INFORMATION

JPM Number: NRC SRO A.2

Revision: 0 chg 2

Task Title: Response to Door Inoperability

<b>STEP</b>	<u>15</u>	<u>X</u>	<b>Performance Step:</b> OP 3261, step 1.3.12	IF door is a security door, PERFORM the following:  a. Refer To Attachment 1 for list of security door number cross references.  b. NOTIFY Security Department of problems with doors or expected maintenance.
<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant recognizes that door A-24-4 is a security door and refers to Attachment 1 that the security door number is 306.
			<b>Grade:</b>	<b>SAT</b> _____ <b>UNSAT</b> _____
<b>GRADE</b>	_____	<u>X</u>	<b>Standards:</b>	Applicant notifies Security Department that door 306 will be blocked open. Telephone call is adequate for this notification.
			<b>CUE:</b>	All notifications to Security are complete.
			<b>Grade:</b>	<b>SAT</b> _____ <b>UNSAT</b> _____
<b>STEP</b>	<u>16</u>	_____	<b>Performance Step:</b> OP 3261, step 1.3.13	IF door is a Fuel Building Integrity Boundary door PERFORM the following:
<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant recognizes that door A-24-4 is not a Fuel Building Integrity Boundary door and moves on to OP 3261, step 1.3.14.
			<b>Grade:</b>	<b>SAT</b> _____ <b>UNSAT</b> _____
<b>STEP</b>	<u>17</u>	_____	<b>Performance Step:</b> OP 3261, step 1.3.14	IF door is a "Halon Door," PERFORM the following:
<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant recognizes that door A-24-4 is not a Halon Door and moves on to OP 3261, step 1.3.15.

## PERFORMANCE INFORMATION

JPM Number:   NRC SRO A.2  

Revision:   0 chg 2  

Task Title:   Response to Door Inoperability  

			<b>Grade:</b>	<b>SAT</b> _____	<b>UNSAT</b> _____
<b>STEP</b>	<u>  18  </u>	_____	<b>Performance Step:</b>	IF door is a "Technical Support Center Habitability Door," PERFORM the following:	

<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant recognizes that door A-24-4 is not a Technical Support Center Habitability Door.	
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			<b>Grade:</b>	<b>SAT</b> _____	<b>UNSAT</b> _____
--	--	--	---------------	------------------	--------------------

<b>STEP</b>	<u>  19  </u>	_____	<b>Performance Step:</b>	Applicant Reports Task Completion.	
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<b>GRADE</b>	_____	_____	<b>Standards:</b>	Applicant reports to the SM that the required compensatory actions necessary to take door A-24-4 out of service have been determined.	
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**CUE:** **The evaluation for this JPM is complete. Please hand in your rough log and any notes.**

**Evaluator NOTE:** If the applicant logs a door attribute that does not apply to door A-24-4, this should be considered incorrect and may affect the overall JPM evaluation grade. However this would not be considered critical in nature.

**Comment:** Submits completed rough log to examiner. Rough log should substantially match the JPM attachment (SRO A.2 Key).

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

## VERIFICATION OF JPM COMPLETION

JPM Number:     NRC SRO A.2    

Revision:     0 chg 2    

Date Performed: \_\_\_\_\_

Student: \_\_\_\_\_

Evaluator: \_\_\_\_\_

For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task?                      YES \_\_\_\_\_ NO   X  

Validated Time (minutes):                  10    

Actual Time to Complete (minutes):    \_\_\_\_\_

Result of JPM:                              \_\_\_\_\_ ("S" for satisfactory, "U" for unsatisfactory)

Result of oral questions (if applicable):

    Number of Questions:                  \_\_\_\_\_

    Number of Correct Responses:        \_\_\_\_\_

  Score:                      \_\_\_\_\_

Areas for Improvement:

## STUDENT HANDOUT

**JPM Number:**

NRC SRO  
A.2

**Initial Conditions:**

The plant is at 100 % power and you are the Work Control SRO on shift. An emergent repair is required on the "A" RPCCW Heat Exchanger. Maintenance requires door A-24-4 be blocked open and have its center post removed, to move in equipment and scaffolding.

**Initiating Cues:**

You are asked to determine any compensatory actions necessary before blocking open door A-24-4. All Service Building and Auxiliary Building fire detectors are operable. Sliding tornado door A-24-4A will remain undisturbed. Maintain a rough log of all applicable Tech Spec actions, TRM actions and necessary compensatory actions.

# JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: Review and Approve a Radioactive Liquid Waste Discharge Permit

JPM ID Number: NRC SRO A.3

Revision: 0 chg 1

II. Initiated:

Steve Jackson  
Developer

11/01/01  
Date

III. Reviewed:

Ray Martin  
Technical Reviewer

11/15/01  
Date

IV. Approved:

NA  
Cognizant Plant Supervisor (optional)

                      
Date

D. Kutterman  
Nuclear Training Supervisor

1/24/07  
Date



# JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

## SUMMARY OF CHANGE(S)

<b>Date</b>	<b>Chg/Rev</b>	<b>Description</b>
1/19/07	0 chg 1	Revised JPM to update to revision 018 to OP 3335D, "Radioactive Liquid Waste System." DLM

## JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3

JPM ID Number: NRC SRO A.3

Revision: 0 chg 1

Task Title: Review and Approve a Radioactive Liquid Waste Discharge Permit

System: Radioactive Liquid Waste System

Time Critical Task: ( ) YES ( X ) NO

Validated Time (minutes): 10

Task Number(s): 068-01-064, Discharge the contents of a Low Level Waste Drain Tank  
068-03-001, Adhere to the requirements of the Radwaste Management Program

Applicable To: SRO X RO \_\_\_\_\_ PEO \_\_\_\_\_

K/A Number: GEN- 2.3.6 K/A Rating: 2.1/3.1

Method of Testing: Simulated Performance: X Actual Performance: X

Location: Classroom: \_\_\_\_\_ In-Plant: X Simulator: X

Task Standards: Review and Approve a Radioactive Liquid Waste Discharge Permit

Required Materials: OP 3335D, Radioactive Liquid Waste System  
Liquid Discharge Permit  
Screen Print of Rad Monitor LWS70-1

General References: None

### \*\*\*READ TO THE STUDENT\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: NRC SRO A.3

Revision: 0 chg 1

Simulator Requirements: None

Initial Conditions: The unit is at 100% power with all systems in normal line-ups. The "A" and "B" Service Water pumps and all Circulating Water pumps are running.

Initiating Cues: The Radwaste PEO has presented OP 3335D sign off copy and a Liquid Discharge Permit for discharging the "A" Waste Test Tank to the Circulating Water discharge tunnel for your approval. Review and approve the permit and report to the examiner when complete.

### \*\*\*\* NOTES TO EVALUATOR \*\*\*\*

1. Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. The student's performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

## PERFORMANCE INFORMATION

JPM Number:     SRO A.3    

Revision:     0 chg 1    

Task Title:     Review and Approve a Radioactive Liquid Waste Discharge Permit    

Start Time:           

<b>STEP</b>	<u>  1  </u>	<u>  X  </u>	<b>Performance Step:</b>	Go to the correct procedure step, OP3335D, Section 4.21.5.i.
<b>GRADE</b>	<u>          </u>	<u>  X  </u>	<b>Standards:</b>	Locates the correct procedure step. Candidate may review previous steps.
			<b>Grade:</b>	<b>SAT</b> <u>          </u> <b>UNSAT</b> <u>          </u>
			<b>Cue:</b>	Steps 4.21.1, 2, 3 & 4 and step 4.21.5.a through h have been completed.
<b>STEP</b>	<u>  2  </u>	<u>  X  </u>	<b>Performance Step:</b>	PERFORM Independent Verification of liquid effluent monitor alarm and alert settings. [step 4.21.5.i.1)]
<b>GRADE</b>	<u>          </u>	<u>  X  </u>	<b>Standards:</b>	Locates liquid effluent monitor alarm and alert settings on Liquid Discharge Permit.
<b>GRADE</b>	<u>          </u>	<u>  X  </u>	<b>Standards:</b>	Locates liquid effluent monitor alarm and alert current settings on RMS Console.
			<b>Comments:</b>	Since this JPM is done in a classroom setting the RMS Console is not available. When candidate requests information and specifies that he would access the RMS screen for LWS70-1, Liquid Waste discharge process radiation monitor, exercise the cue.
			<b>Cue:</b>	This is the screen for LWS70-1 (hand candidate screen printout).
<b>GRADE</b>	<u>          </u>	<u>  X  </u>	<b>Standards:</b>	Compares permit settings and RMS information and identifies that RMS is incorrect. Recommends changing RMS to match the permit. Initials permit after receiving the cue.

## PERFORMANCE INFORMATION

JPM Number:       SRO A.3      

Revision:       0 chg 1      

Task Title:       Review and Approve a Radioactive Liquid Waste Discharge Permit      

**Cue:** IF candidate identifies error, state that the setpoints have been corrected.

**Grade:**                   **SAT**                          **UNSAT**       

**STEP**        3           X   

**Performance Step:** Refer to CHEM Form 3800P-001 and CHECK "EST Activity this Discharge (Ci) on Liquid Discharge Permit is less than action level specified. [step 4.21.5.i.2]"

**GRADE**                   X   

**Standards:** COMPARE CHEM Form 3800P-001 and CHECK "EST Activity this Discharge (Ci) to Discharge permit "Estimated activity this discharge (Ci)". Determines that values are below the limits. Initials permit.

**Grade:**                   **SAT**                          **UNSAT**       

**Cue:** Step 4.21.5.i.3) is N/A since no limits are exceeded.

**STEP**        4           X   

**Performance Step:** CHECK required dilution flowrate is met. [step 4.21.5.i.4]"

**GRADE**                   X   

**Standards:** COMPARES permit requirement of 2 SWP and 3 CWP to actual plant condition of 2 SWP and 6 CWP. Determines that dilution flow is met. Initials permit.

**Grade:**                   **SAT**                          **UNSAT**       

**Termination Cue: The Evaluation of this JPM is Complete**

Stop Time:

## VERIFICATION OF JPM COMPLETION

JPM Number: NRC SRO A.3

Revision: 0 chg 1

Date Performed: \_\_\_\_\_

Student: \_\_\_\_\_

Evaluator: \_\_\_\_\_

For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? YES \_\_\_\_\_ NO X

Validated Time (minutes): 10

Actual Time to Complete (minutes): \_\_\_\_\_

Result of JPM: \_\_\_\_\_ ("S" for satisfactory, "U" for unsatisfactory)

Result of oral questions (if applicable):

Number of Questions: \_\_\_\_\_

Number of Correct Responses: \_\_\_\_\_

Score: \_\_\_\_\_

Areas for Improvement:

## STUDENT HANDOUT

**JPM Number:**                          SRO A.3    

**Initial Conditions:**                      **The unit is at 100% power with all systems in normal line-ups. The “A” and “B” Service Water pumps and all Circulating Water pumps are running.**

**Initiating Cues:**                      **The Radwaste PEO has presented OP 3335D sign off copy and a Liquid Discharge Permit for discharging the “A” Waste Test Tank to the Circulating Water discharge tunnel for your approval. Review and approve the permit and report to the examiner when complete.**

# JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: Emergency Plan Classification for General Emergency

JPM ID Number: NRC SRO A.4

Revision: 0 chg 2

II. Initiated:

Paul Malzahn  
Developer

8/31/05  
Date

III. Reviewed:

Barry Pinkowitz  
Technical Reviewer

8/31/05  
Date

IV. Approved:

T. Butler  
Cognizant Plant Supervisor (optional)

8/31/05  
Date

Tim Kulterman  
Nuclear Training Supervisor

8/31/05  
Date

# JOB PERFORMANCE MEASURE APPROVAL SHEET

## SUMMARY OF CHANGE(S)

<b>Date</b>	<b>Chg/Rev</b>	<b>Description</b>
1/8/07	Rev 0 chg 1	Revised JPM to correspond to the standard NTP format. DLM
2/19/07	Rev 0 chg 2	Modified the last critical standard under the Determine PAR step to require the applicant to indicate State officials implement a predetermined action for evaluation. This is how the CR PAR Process Flowsheet specifically reads. DLM

# JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3

JPM ID Number: NRC SRO A.4

Revision: 0 chg 2

Task Title: Emergency Plan Classification for General Emergency

System: N/A

Time Critical Task: (  ) YES (  ) NO

Validated Time (minutes): 30

Task Number(s): 301-05-366, 301-05-449

Applicable To: SRO  RO  PEO

K/A Number: 2.4.41 K/A Rating: 4.1 / 2.3  
2.4.44 4.0 / 2.1

Method of Testing: Simulated Performance:  Actual Performance:

Location: Classroom:  Simulator:  In-Plant:

Task Standards:

- Determine the EAL and State Posture Code
- Determine the minimum required PAR

Required Materials:

- MP-26-EPI-FAP06-003, MILLSTONE UNIT 3 EMERGENCY ACTION LEVELS
- MP-26-EPI-FAP-01-001, CONTROL ROOM DIRECTOR OF STATION EMERGENCY OPERATION (CR DSEO)
- MP-26-EPI-FAP06, CLASSIFICATION AND PARs
- MP-26-EPI-FAP06-005, CONTROL ROOM PROTECTIVE ACTION RECOMMENDATIONS
- MP-26-EPI-FAP-07-001, NUCLEAR INCIDENT REPORT FORM (IRF)

General References:

### \*\*\*READ TO THE STUDENT\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: NRC SRO A.4

Revision: 0 chg 2

Simulator Requirements: None

Initial  
Conditions:

You are the Shift Manager at Millstone. The time is 02:45. The plant has been on-line for 200 days. The "A" RHR pump is tagged out for an oil change. All other major plant equipment is in service.

The following events occur:

1. (0245) A severe earthquake (0.10g ZPA) occurs.
2. (0246) Reactor trip and Safety Injection on low Pressurizer pressure. The "B" RHR pump does not start; all other ESF equipment operates normally.
3. (0247) The RO reports RCS pressure is 65 psia and stops all RCPs.
4. (0255) The following plant conditions exist:
  - RCS Subcooling is 0°F
  - RMS\*RE04A/05A read 4 R/hr, as confirmed by RMS\*RE41/42
  - Containment Pressure is 15 psia
  - RVLMS (Plenum) is 19%

The current wind speed is five (5) miles per hour. The current wind direction is from 040 and into 220.

Initiating Cues:

**DETERMINE THE APPLICABLE EMERGENCY ACTION LEVEL AND MAKE ANY APPROPRIATE PROTECTIVE ACTION RECOMMENDATIONS.**

**This is a time critical task.**

**ARE THERE ANY QUESTIONS? YOU MAY BEGIN.**

\*\*\*\* **NOTES TO EVALUATOR** \*\*\*\*

## JOB PERFORMANCE MEASURE GUIDE (Continued)

1. Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. The student's performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

## PERFORMANCE INFORMATION

JPM Number:   NRC SRO A.4  

Revision:   0 chg 2  

Task Title:   Emergency Plan Classification for General Emergency  

Start Time:           

**STEP**       1                      **Performance Step:**     Obtain Proper procedure.

**GRADE**                                   **Standards:**             Applicant obtains or requests copy of MP-26-EPI-FAP06-003, MP3 Emergency Action Levels.

Evaluator NOTE: Applicant may also request copies of:

- MP-26-EPI-FAP-01-001, CR-DSEO Checklist
- MP-26-EPI-FAP06, Classification and PARs
- MP-26-EPI-FAP06-005, CR PARs
- MP-26-EPI-FAP07, Notifications & Comms
- MP-26-EPI-FAP07-001, Incident Report Form

The CR DSEO Notebook contains all these procedures.

**Grade:**                   **SAT**                      **UNSAT**           

**STEP**       2         X       **Performance Step:**     **Classify the Event.**

**GRADE**                      X       **Standards:**             Applicant recognizes a potential loss of the Fuel Clad Barrier, based on RVLMS  $\leq$  19% (plenum) (FCB4).

**Grade:**                   **SAT**                      **UNSAT**           

**GRADE**                      X       **Standards:**             Applicant recognizes a loss of the RCS Barrier based on RCS Subcooling < 32°F Due to RCS Leak (RCB2).

**Grade:**                   **SAT**                      **UNSAT**           

**GRADE**                      X       **Standards:**             Applicant recognizes a loss of the CTMT Barrier based on No CTMT Pressure Increase when Expectation exists. (CNB3)

**Grade:**                   **SAT**                      **UNSAT**           

**GRADE**                      X       **Standards:**             Applicant reviews MP-26-EPI-FAP06-003

## PERFORMANCE INFORMATION

JPM Number:   NRC SRO A.4  

Revision:   0 chg 2  

Task Title:   Emergency Plan Classification for General Emergency  

and determines that a NRC EAL of GENERAL EMERGENCY, BG1 exists. Fuel Clad Barrier (P), RCS Barrier (L) and CTMT Barrier (L)

Grade:                      SAT                             UNSAT       

STEP   3        X      Performance Step:    **Determine State Posture Code**

GRADE             X      Standards:                      Applicant reviews MP-26-EPI-FAP06-003 and determines that the block for BG1 is the same color as State Posture ALPHA Tables are color coded to reflect the State Posture.

Evaluator NOTE:                      Grade:                      SAT                             UNSAT       

NOTE:    Record the Time Classification is Completed:   

STEP   4        X      Performance Step:    **Determine the State Protective Action Recommendation**

GRADE                     Standards:                      Applicant uses MP-26-EPI-FAP06-005, Section B, Control Room PAR Process Flowchart, to determine the PAR.

Grade:                      SAT                             UNSAT       

GRADE             X      Standards:                      Reviews flowchart and diagnoses that all 3 barriers are NOT lost and transitions over to "CTMT Radiation"

Grade:                      SAT                             UNSAT       

GRADE             X      Standards:                      Reviews flowchart and determines that CTMT radiation does NOT exceed Table 1 values. Transitions over to "5 Mile Doses"

Grade:                      SAT                             UNSAT       

GRADE             X      Standards:                      Reviews flowchart and determines that 5

PERFORMANCE INFORMATION

JPM Number: NRC SRO A.4

Revision: 0 chg 2

Task Title: Emergency Plan Classification for General Emergency

Mile Doses do NOT exceed Table 2 values.

Evaluator NOTE: When applicant requests dose projections, provide the following cue:  
CUE: The Chem Tech Initial Dose Assessment is not yet available.

Grade: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

GRADE \_\_\_\_\_ X

Standards: Applicant indicates that State officials implement a predetermined action for evaluation.

Evaluator NOTE: The IRF will serve as the necessary PAR notification to the state so no additional DEP communication is required.

Grade: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

NOTE: Record the Time Classification is Completed:

- NOTE:
- 15 minutes to determine Emergency Action Level and State Posture Code.
  - 15 minutes after classifying event to determine minimum required PAR.

CUE: The evaluation for this JPM is complete.

## VERIFICATION OF JPM COMPLETION

JPM Number: NRC SRO A.4

Revision: 0 chg 2

Date Performed: \_\_\_\_\_

Student: \_\_\_\_\_

Evaluator: \_\_\_\_\_

For the student to achieve a satisfactory grade, **ALL** critical steps must be completed correctly. If task is Time Critical, it **MUST** be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? YES X NO \_\_\_\_\_

Validated Time (minutes): 30

Actual Time to Complete (minutes): \_\_\_\_\_

Result of JPM: \_\_\_\_\_ ("S" for satisfactory, "U" for unsatisfactory)

Result of oral questions (if applicable):

Number of Questions: \_\_\_\_\_

Number of Correct Responses: \_\_\_\_\_

Score: \_\_\_\_\_

Areas for Improvement:

## STUDENT HANDOUT

**JPM Number:** NRC SRO A.4

**Initial Conditions:** You are the Shift Manager at Millstone. The time is 02:45. The plant has been on-line for 200 days. The "A" RHR pump is tagged out for an oil change. All other major plant equipment is in service.

The following events occur:

1. (0245) A severe earthquake (0.10g ZPA) occurs.
2. (0246) Reactor trip and Safety Injection on low Pressurizer pressure. The "B" RHR pump does not start; all other ESF equipment operates normally.
3. (0247) The RO reports RCS pressure is 65 psia and stops all RCPs.
4. (0255) The following plant conditions exist:
  - RCS Subcooling is 0°F
  - RMS\*RE04A/05A read 4 R/hr, as confirmed by RMS\*RE41/42
  - Containment Pressure is 15 psia
  - RVLMS (Plenum) is 19%

The current wind speed is five (5) miles per hour. The current wind direction is from 040 and into 220.

**Initiating Cues:** **DETERMINE THE APPLICABLE EMERGENCY ACTION LEVEL AND MAKE ANY APPROPRIATE PROTECTIVE ACTION RECOMMENDATION.**

**This is a time critical task.**