

Facility: **BVPS Unit 2** Task No.: 0011-019-01-013  
Task Title: Respond to RCCA Misalignment JPM No.: 2002 NRC S1  
K/A Reference: 001A2.03 (3.5/4.2)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance:   X    
Classroom \_\_\_\_\_ Simulator   X   Plant \_\_\_\_\_

**READ TO THE EXAMINEE**

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

- Initial Conditions:
- The plant is in Mode 1 at 48% power.
  - An incore flux map has determined that Control Bank "D" rod B-8 is at 155 steps. Bank "D" is at 170 steps.
  - Control rods are in 'MANUAL'.
  - The plant is stable with Tavg and Tref matched.
  - The reason for the misalignment has been determined and corrected.
  - The General Manager Nuclear Operations has been notified.
  - Reactor Engineering has determined that the control rod is to be moved at a rate of 5 step increments or less.

Task Standard: The rod realignment is complete with all Bank "D" rods at 170 steps in accordance with 2OM-1.4.P.

Required Materials: None

General References: 2OM-1.4.P, RCCA Or RCCA Group Misalignment, Rev. 4

Handouts: 2OM-1.4.P, Rev. 4

Initiating Cue: The Unit Supervisor directs you to realign control rod B-8 to 170 steps in accordance with 2OM-1.4.P, Section IV.D. The Initial Conditions are satisfied and Section IV.A has been completed.

Time Critical Task: No

Validation Time: 20 minutes

(Denote Critical Steps with an asterisk)

- \* **Performance Step: 1**  
(Step IV.D.1)  
**Standard:** Place the Rod Control Selector Switch to the Bank with the misaligned rod.  
Locates the Rod Control Bank Selector Switch and rotates to the Bank "D" position.
- Comment:**
- 
- 
- \* **Performance Step: 2**  
(Step IV.D.2)  
**Standard:** Place all lift coil disconnect switches for the bank with the misaligned/dropped rod to ROD DISCONNECT (Up position), except the switch for the misaligned/dropped rod, which is left in ROD CONNECT (Down position).  
Locates lift coil disconnect switches for Bank "D" rods and places all in the 'Rod Disconnect' position, except rod B-8.
- Comment:**
- 
- 
- Performance Step: 3**  
(Step IV.D.3)  
**Standard:** Record the step position(s) for the misaligned/dropped rod bank group step counters below and in the Daily Journal.  
Records the following:
- Bank "D"
  - Group 1 at 170 steps
  - Group II at 170 steps
  - Misaligned rod designation as B-8
  - Misaligned rod position at 155 steps
- CUE:** Another Operator will enter the information in the Daily Journal.
- Comment:**

**Performance Step: 4** Set the Group Step Counter for the misaligned/dropped rod  
(Step IV.D.4) group to the position of the misaligned rod.

**Standard:** Locates Bank "D" step counters and sets to 155 steps.

**Comment:**

**Performance Step: 5** CAUTION: Prior to moving rod(s) to correct the misalignment,  
the General Manager Nuclear Operations must be notified and  
the Reactor Engineer must be consulted concerning the rate of  
control rod movement.

**Standard:** No action required (per Initial Conditions).

**CUE:** If necessary, inform the Candidate that the rate of  
control rod movement is 5 step increments or less.

**Comment:**

\* **Performance Step: 6** Move the Rod Motion lever to OUT (in 5 step increments or less)  
(Step IV.D.5) while adjusting Turbine load to maintain Reactor AND Turbine  
load equal (Tavg-Tref).

**Standard:** Locates the rod motion lever and moves to the 'OUT' position.  
Verifies rod motion occurs in 5 step increments or less.  
Verifies annunciator [A4-8A] is in alarm.

**CUE:** Another operator will handle Turbine load  
adjustments.

**Comment:**

**Performance Step: 7**  
(Step IV.D.6)

Verify the rod out direction lamp is ON AND DRPI for the misaligned/dropped rod is moving in the proper direction.

**Standard:**

Locates rod direction lamp and verifies that the 'UP' arrow is lit.  
Locates DRPIs and verifies outward motion of rod B-8.

**Comment:****\* Performance Step: 8**  
(Step IV.D.7)

Move the misaligned/dropped rod (in 5 step increments or less) until the Group step counter indicates the position recorded for the affected Group in Step IV.D.3.

**Standard:**

Stops outward motion when rod B-8 reaches 170 steps on the group step counter.  
Verifies DRPI indication is the same for all Bank "D" rods.

**Comment:****Performance Step: 9**  
(Step IV.D.8)

Verify the misaligned/dropped rod is at the same position as the other rods in the bank DRPI.

**Standard:**

Verifies DRPI indication is the same for all Bank "D" rods.

**Comment:**

- \* **Performance Step: 10** Place all disconnect switches for the affected Bank to ROD  
(Step IV.D.9) CONNECT, (Down position).  
**Standard:** Locates lift coil disconnect switches for Bank "D" rods and places all in the 'Rod Connect' position.

**Comment:**

- Performance Step: 11** Clear the Urgent Failure Alarm on the Power Cabinet by  
(Step IV.D.10) depressing the Rod Control Alarm Reset pushbutton.  
**Standard:** Locates and depresses the reset pushbutton.  
Verifies [A4-8A], Urgent Failure Alarm clears.

**Comment:**

- Performance Step: 12** Verify Annunciator A4-8A, Rod Control System Urgent Alarm is  
(Step IV.D.11) OFF.  
**Standard:** Verifies [A4-8A] annunciator clears.

**NOTE: Terminate the JPM at this point.**

**Comment:**

**Terminating Cue:** When the Candidate verifies that annunciator A4-8A clears, the evaluation for this JPM is complete.

Job Performance Measure No.: 2002 NRC S1

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**INITIAL CONDITIONS:**

- The plant is in Mode 1 at 48% power.
- An incore flux map has determined that Control Bank "D" rod B-8 is at 155 steps. Bank "D" is at 170 steps.
- Control rods are in 'MANUAL'.
- The plant is stable with Tavg and Tref matched.
- The reason for the misalignment has been determined and corrected.
- The General Manager Nuclear Operations has been notified.
- Reactor Engineering has determined that the control rod is to be moved at a rate of 5 step increments or less.

**INITIATING CUE:**

The Unit Supervisor directs you to realign control rod B-8 to 170 steps in accordance with 2OM-1.4.P, Section IV.D. The Initial Conditions are satisfied and Section IV.A has been completed.

Appendix C	Job Performance Measure Worksheet	Form ES-C-1
Facility:	<b>BVPS Unit 2</b>	Task No.: 0535-056-04-013
Task Title:	<u>Respond to a Shutdown LOCA</u>	JPM No.: <u>2002 NRC S2</u>
K/A Reference:	009 EA1.13 (4.4/4.4)	

Examinee: \_\_\_\_\_ NRC Examiner: \_\_\_\_\_  
 Facility Evaluator: \_\_\_\_\_ Date: \_\_\_\_\_  
Method of testing:  
 Simulated Performance: \_\_\_\_\_ Actual Performance: X  
                                   Classroom \_\_\_\_\_ Simulator X Plant \_\_\_\_\_

### READ TO THE EXAMINEE

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

- Initial Conditions:
- The plant was in Mode 4, on RHS when a LOCA occurred.
  - The RCP's have been secured.
  - The Shift Manager has decided to enter AOP-2.6.5, Shutdown LOCA to stabilize plant conditions.
  - 2CHS\*P21A and P21C, HHSI/Charging Pumps are out of service.
  - The SI Accumulators are isolated.

Task Standard: Alternate SI flowpath established in accordance with AOP-2.6.5.

Required Materials: Shorting Bar

General References: 2OM-53C.4.2.6.5, Shutdown LOCA, Rev. 11

Handouts: AOP-2.6.5, Rev. 11

Initiating Cue: The Unit Supervisor directs you to establish alternate SI flow in accordance with Steps 1 through 6 of AOP-2.6.5, Shutdown LOCA.

Time Critical Task: No

Validation Time: 15 minutes



(Denote Critical Steps with an asterisk)

**Performance Step: 1** Check Safety Injection - NOT ACTUATED

(Step 1)

**Standard:** Locates SI annunciators and determines that Safety Injection is not actuated.

**Comment:**

**Performance Step: 2** Isolate RCS Letdown: Close all Letdown Orifice 21, 22, 23 Isol  
(Step 2.a) Vlvs.

**Standard:** Locates and verifies 2CHS\*AOV200A, B and C are closed.

**Comment:**

**Performance Step: 3** Isolate RCS Letdown: Close Regenerative Heat Exch Letdown  
(Step 2.b) Inlet Vlvs

**Standard:** Locates and verifies 2CHS\*LCV460A and B are closed.

**Comment:**

- \* **Performance Step: 4** Isolate RCS Letdown: Close RHS Train A, B Cross Connect Isol  
(Step 2.c) Vlvs.  
**Standard:** Locates and closes 2RHS\*MOV750A and/or B.

**Comment:**

- \* **Performance Step: 5** Check If Charging Flow Is Adequate: Adjust [2CHS\*FCV122],  
(Step 3.a) Charging Pumps Disch Flow Control Vlv as necessary to  
maintain PRZR level.  
**Standard:** Locates and opens 2CHS\*FCV122 in 'Manual' to raise charging  
flow.

**Comment:**

- Performance Step: 6** Check If Charging Flow Is Adequate: Check PRZR level.  
(Step 3.b)  
**Standard:** Checks PRZR level indication and determines that level is less  
than 17% and NOT stable or rising.

**NOTE: Candidate should transition to Step 4.**

**Comment:**

**Performance Step: 7** Alert Plant Personnel Of The Shutdown LOCA  
(Step 4)

**Standard:** Locates and sounds the standby alarm.  
Locates plant page and announces Unit 2 Shutdown LOCA.  
Notifies Shift Manager/US to evacuate nonessential personnel from containment and to evaluate EPP.

**CUE:** No one is inside containment. The Shift Manager will evaluate EPP.

**Comment:**

<b>Note:</b> The following steps represent the alternate path for this JPM.
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**Performance Step: 8** Check SI Equipment Status: Check Charging/HHSI Pumps -  
(Step 5.a) Two Available

**Standard:** Locates Charging/HHSI Pumps and determines that two are NOT available.

**CUE:** An Operator has been dispatched to restore 2CHS\*P21A and 2CHS\*P21C to service.

**NOTE:** Candidate should transition to Step 6.

**Comment:**

**Performance Step: 9** Establish Alternate SI Flowpath: Charging/HHSI Pump - Only  
(Step 6.a) One Running

**Standard:** Locates and verifies only one Charging/HHSI Pump is running.

**Comment:**

**Performance Step: 10** Establish Alternate SI Flowpath: Open Charging Pumps Suct  
(Step 6.b.1) From RWST

**Standard:** Locates and verifies 2CHS\*LCV115B and D are open.

**Comment:**

**Performance Step: 11** Establish Alternate SI Flowpath: Close Charging Pumps Suct  
(Step 6.b.2) From Volume Control Tank

**Standard:** Locates and verifies 2CHS\*LCV115C and E are closed.

**Comment:**

<b>NOTE: Provide Candidate with shorting bar.</b>
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- \* **Performance Step: 12** Establish Alternate SI Flowpath: Insert shorting bar into  
(Step 6.c.1) [2SIS\*MOV836], High Head SI Cold Leg Isol Vlv jack.
- Standard:** Locates jack and inserts shorting bar for 2SIS\*MOV836.

**Comment:**

- \* **Performance Step: 13** Establish Alternate SI Flowpath: Open [2SIS\*MOV836].  
(Step 6.c.2)
- Standard:** Locates and opens 2SIS\*MOV836.

**Comment:**

- \* **Performance Step: 14** Establish Alternate SI Flowpath: Immediately close  
(Step 6.d) [2CHS\*MOV289], Normal Charging Hdr Isol Vlv.  
**Standard:** Locates and closes 2CHS\*MOV289.

**NOTE: Terminate JPM at this point.**

**Comment:**

**Terminating Cue:** When the Candidate has completed aligning the alternate SI flowpath, the evaluation for this JPM is complete.

Job Performance Measure No.: 2002 NRC S2

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**INITIAL CONDITIONS:**

- The plant was in Mode 4, on RHS when a LOCA occurred.
- The RCP's have been secured.
- The Shift Manager has decided to enter AOP-2.6.5, Shutdown LOCA to stabilize plant conditions.
- 2CHS\*P21A and P21C, HHSI/Charging Pumps are out of service.
- The SI Accumulators are isolated.

**INITIATING CUE:**

The Unit Supervisor directs you to establish alternate SI flow in accordance with Steps 1 through 6 of AOP-2.6.5, Shutdown LOCA.

Facility: **BVPS Unit 2** Task No.: 0431-028-01-013

Task Title: Respond to a Radiation Monitor Alarm -  
Leak Collection Tank JPM No.: 2002 NRC S3

K/A Reference: 073 A4.02 (3.7/3.7)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance:   X  

Classroom \_\_\_\_\_ Simulator   X   Plant \_\_\_\_\_

### READ TO THE EXAMINEE

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

Initial Conditions: The plant is at 48% power. Annunciator A4-5C has just alarmed.

Task Standard: Ventilation flowpath correctly aligned in accordance with 2OM-43.4AEB.

Required Materials: None

General References: 2OM-43.4.AAC, Radiation Monitoring Level High, Rev. 0  
2OM-43.4.AEB, Local-Leak Collection Ventilation [2RMR-RQI301] High Alarm Level, Rev. 5

Handouts: 2OM-43.4.AAC, Rev. 0 & 2OM-43.4.AEB, Rev. 5

Initiating Cue: The Unit Supervisor directs you to respond to A4-5C alarm in accordance with 2OM-43.4.AAC.

Time Critical Task: No

Validation Time: 20 minutes



(Denote Critical Steps with an asterisk)

**NOTE: Provide ONLY a copy of 2OM-43.4.AAC initially. At Step 6, provide a copy of 2OM-43.4.AEB.**

**Performance Step: 1** Press the grid 6 pushbutton AND Determine which radiation  
(Step 1.a) monitor in alarm (blinking and has turned red).  
**Standard:** Locates grid 6 pushbutton, depresses it, and determines that  
2RMR-RQI301 is in alarm.

**Comment:**

**Performance Step: 2** Type in the 4-digit numerical code number of the alarming  
(Step 1.b) monitor AND Press the SEL pushbutton.  
**Standard:** Locates and enters the 4-digit code and presses the SEL  
pushbutton.

**NOTE: The 4-digit code is 1033.**

**NOTE: The Candidate may choose to press SEL only to  
access the monitor in alarm.**

**Comment:**

**Performance Step: 3** Press the STATUS pushbutton.  
(Step 1.c)  
**Standard:** Locates and depresses the STATUS pushbutton.

**Comment:**

**Performance Step: 4**  
(Step 1.d)

Press SYSTEM ACK to silence the console alarm.

**Standard:**

Locates and depresses the SYSTEM ACK pushbutton.

**NOTE: The audible alarm is defeated and does not sound.****Comment:****Performance Step: 5**  
(Step 1.e)

If any radiation monitor is at OR approaching, 1000 times normal background, Immediately notify the NSS and refer to 1/2OM-57, "Emergency Preparedness Plan" for further actions.

**Standard:**

Compares reading against background and notifies the Shift Manager.

**CUE: Background radiation level is 1 E – 5.****CUE: The Shift Manager is aware of the alarm level and will refer to the EPP.****Comment:****Performance Step: 6**  
(Step 1.f)

Refer to local alarm response procedure for corrective actions.

**Standard:**

Determines procedure for 2RMR-RQI301.

**NOTE: Candidate may verbalize the monitor in alarm or refer to the correct procedure. Either action satisfies the step.****CUE: Provide the Candidate a copy of 2OM-43.4.AEB.****Comment:**

**Performance Step: 7**  
(Step 1.a)

At the RM-11 console, Verify the indicating box turns red AND moves to the right of CHANNEL IN HIGH ALARM.

**Standard:**

Verifies indicating box is red and to the right of Channel In High Alarm.

**Comment:****\* Performance Step: 8**  
(Step 1.b)

Press CHANNEL ITEMS AND verify the actual radiation level (top right hand corner) is greater than line item 9 (HIGH setpoint).

**Standard:**

Depresses the CHANNEL ITEMS pushbutton.

Verifies radiation level is greater than the high alarm setpoint.

**Comment:****Performance Step: 9**  
(Step 1.c)

Notify the NSS and at his direction, Perform any of the following steps.

**Standard:**

Notifies Shift Manager and requests direction.

**CUE: The Shift Manager has notified RadCon of the activity level and directs you to perform Steps 1.e and 1.f.**

**Comment:**

<b>NOTE: The following steps represents the alternate path for this JPM.</b>
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**Performance Step: 10**      Verify [2HVS\*MOD201A and B] Contiguous Area Normal  
(Step 1.e)                      Unfiltered Leak Coll. Dampers are Closed.

**Standard:**                      Locates 2HVS\*MOD201A and B indication and determines that  
   dampers are NOT closed.

**Comment:**

\* **Performance Step: 11**      If dampers are NOT Closed, Place control switch in the FILT  
(Step 1.e.1)                      position.

**Standard:**                      Locates 2HVS\*MOD201A and B control switch and places in the  
   FILT position.

**Comment:**

**Performance Step: 12**      Verify that [2HVS\*MOD202A and B] Contiguous Area Normal  
(Step 1.f)                      Filtered Leak Collection Dampers are Open.

**Standard:**                      Locates 2HVS\*MOD202A and B indication and determines that  
   dampers are NOT open.

**Comment:**

- \* **Performance Step: 13** If dampers are NOT Open, Place control switch in the FILT  
(Step 1.f.1) position.  
**Standard:** Locates 2HVS\*MOD202A and B control switch and places in the  
FILT position.

**NOTE: Terminate the JPM at this point.**

**Comment:**

**Terminating Cue:** When the Candidate realigns the dampers, the evaluation for this  
JPM is complete.

Job Performance Measure No.: 2002 NRC S3

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**INITIAL CONDITIONS:**      The plant is at 48% power. Annunciator A4-5C has just alarmed.

**INITIATING CUE:**      The Unit Supervisor directs you to respond to A4-5C alarm in accordance with 2OM-43.4.AAC.

Facility:	<b>BVPS Unit 2</b>	Task No.:	0061-009-01-013 0061-011-01-013
Task Title:	<u>Initiate a Cooldown per ES-0.2</u>	JPM No.:	<u>2002 NRC S4</u>
K/A Reference:	002 A4.02 (4.3/4.5) EA1.1 (3.5/3.5)		

Examinee:	NRC Examiner:
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Facility Evaluator:	Date:
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Method of testing:

Simulated Performance:	_____	Actual Performance:	<u>  X  </u>
Classroom	_____	Simulator	<u>  X  </u>
		Plant	_____

### READ TO THE EXAMINEE

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

Initial Conditions:	<ul style="list-style-type: none"><li>• The reactor was manually tripped due to a CCP leak that required stopping all RCPs.</li><li>• The plant is now in natural circulation cooldown mode.</li><li>• E-0, ES-0.1, and ES-0.2 through Step 5 have been completed.</li><li>• The plant is stable with condenser steam dumps in automatic in the Steam Pressure Mode and the bypass feedwater regulating valves in automatic maintaining SG levels.</li></ul>
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Task Standard:	Natural circulation cooldown established in accordance with ES-0.2.
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Required Materials:	None
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General References:	2OM-53A-ES-0.2, Natural Circulation Cooldown Issue 1C, Rev. 0 2OM-53A.1.A-4.1, RCS Cooldown Limits - Technical Specifications, Issue 1C, Rev. 0
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Handouts:	2OM-53A-ES-0.2, Issue 1C, Rev. 1 2OM-53A.1.A-4.1, Issue 1C, Rev. 0
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Initiating Cue:	The Unit Supervisor directs you to initiate a cooldown of the RCS in accordance with ES-0.2, Step 6.
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Time Critical Task:	No
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Validation Time:	20 minutes
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(Denote Critical Steps with an asterisk)

**NOTE:** It may be necessary to reduce letdown, manually operate 2CHS-FCV122, or use a PRZR PORV to control pressure. Also, AFW starts are inhibited, so no actuation will occur if SG levels are low.

**Performance Step: 1**      Trend RCS Tcold and pressure on the main computer at 10  
(Step 6.a)                      minute intervals.  
**Standard:**                      Refers to RCS cold leg temperatures and pressure trend on plant  
   computer.

**Comment:**

**Performance Step: 2**      Initial the trend every half-hour.  
(Step 6.a.1)  
**Standard:**                      No action required.

**NOTE:** If asked, inform the Candidate that another operator will initial the trend.

**Comment:**

**Performance Step: 3**      Ensure cooldown in RCS cold legs does not exceed 25F/HR.  
(Step 6.a.2 & 3)  
**Standard:**                      Refers to Attachment A-4.1 and ensures the following cooldown  
   rate does not exceed 25°F/hr.

**Comment:**

**Performance Step: 4**  
(Step 6.b)

Maintain SG narrow range level - BETWEEN 30% and 50%.

**Standard:**

Locates SG NR level indication and determines level is between 30% and 50%.

**NOTE: Inform the Candidate that another operator will be responsible for SG level control.****Comment:****Performance Step: 5**  
(Step 6.c.1)

Check MSIVs - AT LEAST ONE OPEN

**Standard:**

Locates MSIV indications and checks that valves are open.

**Comment:****Performance Step: 6**  
(Step 6.c.2)

Verify condenser available by checking Annunciator A12-4C "CONDENSER UNAVAILABLE (C-9)" - NOT LIT.

**Standard:**

Locates and verifies that annunciator A12-4C is NOT lit.

**Comment:**

- |                              |  |
|------------------------------|--|
| * <b>Performance Step: 7</b> | Set steam header pressure setpoint on [2MSS*PK464], Main Strm Manifold Press Control above existing steam header pressure. |
| (Step 6.c.3)                 |  |

**Standard:** Locates and sets steam header pressure setpoint to control above existing steam header pressure.

**Comment:**

- \* **Performance Step: 8** Place [2MSS\*PK464] in MANUAL.  
(Step 6.c.4)

**Standard:** Locates and places 2MSS\*PK464 in Manual.

**Comment:**

- Performance Step: 9** Verify demand on [2MSS\*PK464] is ZERO.  
(Step 6.c.5)

**Standard:** Verifies demand on 2MSS\*PK464 is at zero.

**Comment:**

- \* **Performance Step: 10** Place steam dump control mode selector switch in STM PRESS position.  
(Step 6.c.6)

**Standard:** Locates and places the steam dump control mode selector switch in STM PRESS position.

**Comment:**

- \* **Performance Step: 11** To prevent steamline isolation, gradually raise steam dump rate.  
(Step 6.c.7)
- Standard:** Depresses raise pushbutton to open the steam dump valves.  
Notes failure of condenser steam dumps and informs Supervisor.
- CUE:** As Unit Supervisor, acknowledge condenser steam dump failure and direct Candidate to use 2SVS\*HCV104, Residual Heat Release Valve to dump steam.

**Comment:**

<b>NOTE: The following steps represent the alternate path for this JPM.</b>
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- \* **Performance Step: 12** Manually or locally dump steam using [2SVS\*HCV104] Residual  
(Step 6.c RNO) Heat Release Valve.
- Standard:** Locates and slowly opens 2SVS\*HCV104.

**Comment:**

**Performance Step: 13**  
(Step 6.d)

Continue cooldown to cold shutdown.

**Standard:**

Establishes desired cooldown rate.

Adjusts cooldown rate as necessary to establish a cooldown rate less than 25°F/hr.

**NOTE: A final stable cooldown rate is NOT required for the performance of the JPM.****Comment:****Terminating Cue:**

When the Candidate begins dumping steam using 2SVS\*HCV104, the evaluation for this JPM is complete.

Job Performance Measure No.: 2002 NRC S4

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**INITIAL CONDITIONS:**

- The reactor was manually tripped due to a CCP leak that required stopping all RCPs.
- The plant is now in natural circulation cooldown mode.
- E-0, ES-0.1, and ES-0.2 through Step 5 have been completed.
- The plant is stable with condenser steam dumps in automatic in the Steam Pressure Mode and the bypass feedwater regulating valves in automatic maintaining SG levels.

**INITIATING CUE:**

The Unit Supervisor directs you to initiate a cooldown of the RCS in accordance with ES-0.2, Step 6.

Number <b>ES-0.2</b>	Title <b>Natural Circulation Cooldown</b>	Issue 1C Revision 1
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
6.	(continued from previous page)	
c.	Dump steam to condenser by performing the following:	c. Manually or locally dump steam using:
	1) Check MSIVs - AT LEAST ONE OPEN	• [2SVS*PCV101A,B,C] SG Atm Stm Dump Valves
	2) Verify condenser available by checking Annunciator A12-4C, "CONDENSER UNAVAILABLE (C-9)" - NOT LIT	-OR- • [2SVS*HCV104] Residual Heat Release Valve
	3) Set steam header pressure setpoint on [2MSS*PK464], Main Stm Manifold Press Control above existing steam header pressure.	
	4) Place [2MSS*PK464] in MANUAL.	
	5) Verify demand on [2MSS*PK464] is ZERO.	
	6) Place steam dump control mode selector switch in STM PRESS position.	
	7) To prevent steamline isolation, gradually raise steam dump rate.	
	8) As TAVG approaches 541F, defeat TAVG interlock by holding both steam dump bypass selector switches to DEFEAT TAVG position, until Annunciator A12-3F, "2/3 LO-LO TAVG (P-12)" alarms.	8) <u>IF</u> TAVG is below 541F <u>AND</u> steam dump stops, <u>THEN</u> perform the following: a) Place steam dump controller in FULL CLOSED. b) Defeat TAVG interlock by placing both steam dump bypass selector switches to DEFEAT TAVG position. c) To prevent steamline isolation, gradually raise steam dump rate until desired rate is obtained.
d.	Continue cooldown to cold shutdown.	

**FOR TRAINING USE ONLY**



Facility: **BVPS Unit 2** Task No.: 0531-005-05-013

Task Title: Manual Initiation of Quench Spray JPM No.: 2002 NRC S5

K/A Reference: 026A2.03 (4.1/4.4) 026A2.04 (3.9/4.2)  
026K4.03 (3.7/4.1)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance:   X    
Classroom \_\_\_\_\_ Simulator   X   Plant \_\_\_\_\_

### READ TO THE EXAMINEE

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

Initial Conditions:

- A reactor trip and safety injection have occurred.
- The actions of E-0 have been completed through Step 7.
- Steamline isolation has actuated due to high containment pressure and all indicating lights that have yellow SLI markers are energized.

Task Standard: Containment Spray equipment is started in accordance with A.0.11, Step 6.

Required Materials: None

General References: 2OM-53A.1.A.0.11, Verification Of Automatic Actions, Issue 1C, Rev. 2

Handouts: Attachment A-0.11, Issue 1C, Rev. 2

Initiating Cue: The Unit Supervisor directs you to verify CIB and Containment Spray Status in accordance with Step 6 of Attachment A-0.11.

Time Critical Task: No

Validation Time: 5 minutes

(Denote Critical Steps with an asterisk)

**Performance Step: 1**  
(Step 6)

Check CIB and Containment Spray Status: Containment pressure (at least one pen) - HAS REMAINED LESS THAN 8 PSIG ON [2LMS\*PR950] REACTOR CNMT PRESS RECORDER

**Standard:**

Locates 2LMS\*PR950 and determines that containment pressure has NOT remained less than 8 psig.

**Comment:**

**NOTE: The following steps represent the alternate path for this JPM.**

**Performance Step: 2**  
(Step 6.a RNO)

Verify CIB initiated: Check all indicating lights with BLUE CIB mark - LIT

**Standard:**

Determines not all indicating lights with BLUE CIB marks are lit.

**Comment:**

\* **Performance Step: 3**  
(Step 6.a RNO)

IF NOT, THEN manually initiate CIB (both switches for both trains). Check all indicating lights with BLUE CIB mark - LIT

**Standard:**

Locates and turns both switches (2 per train) for Train "A" Spray Actuation.

Locates and turns both switches (2 per train) for Train "B" Spray Actuation.

**NOTE: Order of switch manipulations may be reversed.**

**Comment:**

- \* **Performance Step: 4** IF CIB NOT actuated, THEN manually align equipment.  
(Step 6.a RNO)
- Standard:** Determines that [2QSS\*P21A & B] Quench Spray Pumps are not running.  
Locates control switches and starts both Quench Spray Pumps.  
Verifies red lights are energized.

**NOTE: The following are equipment EXCEPTIONS to CIB realignment that are not part of the JPM:**

2SWS-MOV153-1	De-energized Shut
2SWS-MOV153-2	De-energized Shut
2SWS-MOV154-1	De-energized Shut
2SWS-MOV154-2	De-energized Shut
2QSS*SOV100A	Shut (opens on RWST low-low level)
2QSS*SOV101B	Shut due to Chem. "A" Pump running
2QSS*P24B	Off when 2QSS*P24A running

**NOTE: Terminate the JPM at this point.**

**Comment:**

**Terminating Cue:** When the Candidate has started the Quench Spray Pumps, the evaluation for this JPM is complete.

Job Performance Measure No.: 2002 NRC S5

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**INITIAL CONDITIONS:**

- A reactor trip and safety injection have occurred.
- The actions of E-0 have been completed through Step 7.
- Steamline isolation has actuated due to high containment pressure and all indicating lights that have yellow SLI markers are energized.

**INITIATING CUE:**

The Unit Supervisor directs you to verify CIB and Containment Spray Status in accordance with Step 6 of Attachment A-0.11.

Appendix C	Job Performance Measure Worksheet	Form ES-C-1
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Facility: **BVPS Unit 2** Task No.: 0362-007-01-013

Task Title: Shutdown No. 1 Diesel Generator JPM No.: 2002 NRC S6

K/A Reference: 064A4.06 (3.9/3.9)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance:   X  

Classroom \_\_\_\_\_ Simulator   X   Plant \_\_\_\_\_

**READ TO THE EXAMINEE**

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

Initial Conditions: The 2-1 Emergency Diesel Generator is running and supplying Emergency 4KV Bus 2AE due to a spurious trip of ACB 2A10. ACB 2A10 has been checked by Electrical Maintenance and the relays are reset.

Task Standard: 2EGS\*EG2-1 is removed from service in accordance with 2OM-36.4.E.

Required Materials: None

General References: 2OM-36.4.E, Transferring 4KV Emergency Bus 2AE To Bus 2A, Rev. 8

Handouts: 2OM-36.4.E, Rev. 8

Initiating Cue: The Unit Supervisor directs you to parallel 4KV Bus 2A and Emergency 4KV Bus 2AE **AND** remove 2EGS\*EG2-1 from service in accordance with 2OM-36.4.E, Steps IV.A and IV.B. The Initial Conditions are satisfied.

Time Critical Task: No

Validation Time: 20 minutes

(Denote Critical Steps with an asterisk)

- \* **Performance Step: 1**      Close [ACB-2A10], 4KV Bus 2A to Emer Bus 2AE.  
(Step IV.A.1)

**Standard:**                      Locates and closes ACB-2A10.  
   Verifies red light energized.

**Comment:**

- \* **Performance Step: 2**      Place 2-1 Emer Gen Synchronizing Selector Switch to Bus 2A  
(Step IV.A.2)

**Standard:**                      Locates and places selector switch in the Bus 2A position.

**Comment:**

- \* **Performance Step: 3**      Adjust [2EGS\*EG2-1], Emergency Diesel Generator 2-1 speed  
(Step IV.A.3)                      with the 2-1 Emerg Gen Governor Control to cause the 2-1  
   Emergency Generator Synchroscope needle to rotate slowly in  
   the fast direction.

**Standard:**                      Locates and adjusts speed until synchroscope needle rotates  
   slowly in the fast direction.

**Comment:**

- \* **Performance Step: 4**  
(Step IV.A.4)      Adjust [EGS\*EG2-1], Emergency Diesel Generator 2-1 output voltage, as indicated on 2-1 Emer Gen Volts, to read slightly higher than the 4KV Bus 2A Volts using Emer Gen 2-1 Voltage Adjust.
- Standard:**      Locates and adjusts voltage until slightly higher than bus voltage.
- Comment:**
- 
- \* **Performance Step: 5**  
(Step IV.A.5)      With the synchroscope rotating slowly in the fast direction, WHEN both synchronizing lights are completely dark AND the synchroscope needle is at the 12 o'clock position, place [ACB-2E7], 4KV Emer Bus 2AE to Bus 2A, in the CLOSE position.
- Standard:**      Locates and closes ACB-2E7 when the synchroscope is at the 12 o'clock position.  
Verifies red light energized.
- Comment:**
- 
- Performance Step: 6**  
(Step IV.A.6)      Place 2-1 Emer Gen Synchronizing Selector switch to OFF.
- Standard:**      Locates and places selector switch in the OFF position.
- Comment:**



**Performance Step: 7** (Step IV.A.7) Maintain generator power factor between .8 and 1.0 lagging by adjusting 2-1 Emer Gen Voltage Adjust.

**Standard:** Locates and adjusts voltage, as necessary, to maintain power factor between 0.8 and 1.0 lagging.

**Comment:**

**NOTE: The following steps will remove 2EGS\*EG2-1 from service.**

- \* **Performance Step: 8** (Step IV.B.1) Reduce [EGS\*EG2-1], Emergency Diesel Generator 2-1, load UNTIL < 100 KW is indicated on 2-1 Emergency Generator Watts by placing 2-1 Emer Gen Governor Control to LOWER.

**Standard:** Locates governor control and reduces 2EGS\*EG2-1 load until less than 100 KW.

**Comment:**

- \* **Performance Step: 9** (Step IV.B.2) Open [ACB-2E10], 2-1 Emer Gen Output Bkr.

**Standard:** Locates and opens ACB-2E10.  
Verifies green light energized.

**NOTE: Terminate the JPM at this point.**

**Comment:**

**Terminating Cue:** When the Candidate opens ACB-2E10, the evaluation for this JPM is complete.

Job Performance Measure No.: 2002 NRC S6

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**INITIAL CONDITIONS:**

The 2-1 Emergency Diesel Generator is running and supplying Emergency 4KV Bus 2AE due to a spurious trip of ACB 2A10. ACB 2A10 has been checked by Electrical Maintenance and the relays are reset.

**INITIATING CUE:**

The Unit Supervisor directs you to parallel 4KV Bus 2A and Emergency 4KV Bus 2AE **AND** remove 2EGS\*EG2-1 from service in accordance with 2OM-36.4.E, Steps IV.A and IV.B. The Initial Conditions are satisfied.

Facility: **BVPS Unit 2** Task No.: 0535-010-04-013  
0021-004-01-013  
Task Title: Respond to Failed Power Range Channel N-44 JPM No.: 2002 NRC S7  
K/A Reference: 051A2.01 (3.5/3.9)  
015A2.02 (3.1/3.5)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance:   X    
Classroom \_\_\_\_\_ Simulator   X   Plant \_\_\_\_\_

**READ TO THE EXAMINEE**

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

- Initial Conditions:
- The plant is operating at approximately 46% power following the failure of Power Range Channel N-44.
  - The actions required to stabilize the plant following the failure have been taken.
  - Reactor power, turbine power and Tavg are all stable at their current values.
  - Tavg is within one degree of Tref, and the control rods are in MANUAL.
  - The bypass feedwater regulating valves are in MANUAL.
  - All other systems are operating normally.

Task Standard: Power Range Channel N-44 is bypassed per AOP-2.2.1C.

Required Materials: None

General References: 2OM-53C.4.2.2.1C, Power Range Channel Malfunction, Issue 1A, Rev. 6

Handouts: 2OM-53C.42.2.1C, Rev. 6

Initiating Cue: The Unit Supervisor directs you to bypass Power Range Channel N-44 in accordance with AOP-2.2.1C.

Time Critical Task: No

Validation Time: 15 minutes

(Denote Critical Steps with an asterisk)

**Performance Step: 1** Check If Malfunction Of One Power Range Channel (N-41, N-42,  
(Step 1) N-43, N-44) Has Occurred

**Standard:** Verifies by meter indication that N-44 has failed high.

**Comment:**

\* **Performance Step: 2** Within 6 hours, trip nuclear bistables by removing control power  
(Step 1.a) supply fuses from drawer A of failed channel.

**Standard:** Locates and removes control power fuses from N-44 drawer A.

**Comment:**

**Performance Step: 3** Place Control Rod Group Selector switch in MAN.  
(Step 1.b.1)

**Standard:** No action required (Rods in Manual per Initial Conditions).

**Comment:**

**Performance Step: 4** Place [2FWS\*FCV479, 489, 499], 21A (B) (C) SG Feedwater  
(Step 1.b.2) Bypass Control Vlvs in MANUAL.

**Standard:** No action required (Bypass Valves in Manual per Initial Conditions).

**Comment:**

- \* **Performance Step: 5** At NIS Rack N50, "Detector Current Comparator," turn Rod Stop Bypass Switch to BYPASS on the failed channel.  
(Step 1.c)

**Standard:** Locates and places Rod Stop Bypass Switch in N-44 position.  
Verifies "Overpower Rod Stop Bypass" status light is lit.

**Comment:**

- Performance Step: 6** Check reactor power - GREATER THAN 50%  
(Step 1.d)

**Standard:** Locates and verifies that NIS power indication or recorder reads less than 50%.

**Comment:**

- \* **Performance Step: 7** At NIS Rack N37/N46, "Comparator and Rate", turn Comparator Channel Defeat Switch to failed channel.  
(Step 1.g)

**Standard:** Locates and places Comparator Channel Defeat Switch in the N-44 position.

**Comment:**

**Performance Step: 8**      Ensure vertical board recorders are selected to monitor only  
(Step 1.h)                      operable detectors.

**Standard:**                      Locates and places NIS recorder selector switch to channel other  
than N-44.

**Comment:**

**Performance Step: 9**      Check reactor power - GREATER THAN 50%  
(Step 1.j)

**Standard:**                      No action required (previously verified).

**Comment:**

**Performance Step: 10**      Refer to T.S. 4.2.1.1.b.  
(Step 1.l)

**Standard:**                      Reports that N-44 is bypassed and to refer to T.S. 4.2.1.1.b.

**NOTE: Terminate the JPM at this point.**

**Comment:**

**Terminating Cue:**              When the Candidate reports that N-44 is bypassed, the  
evaluation for this JPM is complete.

Job Performance Measure No.: 2002 NRC S7

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**INITIAL CONDITIONS:**

- The plant is operating at approximately 46% power following the failure of Power Range Channel N-44.
- The actions required to stabilize the plant following the failure have been taken.
- Reactor power, turbine power and Tavg are all stable at their current values.
- Tavg is within one degree of Tref, and the control rods are in MANUAL.
- The bypass feedwater regulating valves are in MANUAL.
- All other systems are operating normally.

**INITIATING CUE:**

The Unit Supervisor directs you to bypass Power Range Channel N-44 in accordance with AOP-2.2.1C.

Facility: **BVPS UNIT 2** Task No.: 0201-004-01-013  
Task Title: Respond to a SFP Low Level Alarm JPM No.: 2002 NRC P1  
K/A Reference: 033A2.03 (3.1/3.5)

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance:   X   Actual Performance:             
Classroom            Simulator            Plant   X  

**READ TO THE EXAMINEE**

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

Initial Conditions: The plant is in Mode 1 and [A6-1B], Spent Fuel Pool Level High/Low is in alarm. Spent Fuel Pool level indicates less than 172 inches. The cause of the Spent Fuel Pool low level is normal evaporation.  
The running and standby Fuel Pool Purification Pumps have been placed in Pull-To-Lock.

Task Standard: Makeup to the SFP from the RWST in accordance with 2OM-20.4.G.

Required Materials: None

General References: 2OM-20.4.AAB, Spent Fuel Pool Level High/Low, Rev. 2  
2OM-20.4.G, Makeup To the Spent Fuel Pool, Rev. 7

Handouts: 2OM-20.4.G, Rev. 7

Initiating Cue: The Unit Supervisor directs you to add water to the Spent Fuel Pool using RWST Cooling Water Pump Train "A" in accordance with 2OM-20.4.G, Step IV.C. The Initial Conditions are satisfied.

Time Critical Task: No

Validation Time: 15 minutes

(Denote Critical Steps with an asterisk)

**Performance Step: 1** Obtain the power station key for [2QSS-26], Refueling Water  
(Step IV.C.1) Cooling Pumps Discharge to Fuel Pool Cooling.

**Standard:** Obtains key from the Control Room.

**CUE:** Simulate providing Candidate with the key.

**Comment:**

**Performance Step: 2** If necessary, place the control switch for the standby [2FNC-  
(Step IV.C.2.a) P24B (A)], Fuel Pool Purif Pump, in PULL-TO-LOCK.

**Standard:** No action required (previously performed per Initial Conditions).

**Comment:**

**Performance Step: 3** Stop the running [2FNC-P24A (B)], Fuel Pool Purif Pump, by  
(Step IV.C.2.b) placing its control switch in PULL-TO-LOCK.

**Standard:** No action required (previously performed per Initial Conditions).

**Comment:**

**Performance Step: 4** Check Open [2FNC-40], Purif Pump [2FNC-P24A] to Ion Exch  
(Step IV.C.3) [2FNC-IOE21] Isol

**Standard:** Locates and simulates checking valve is open by verifying  
handwheel is parallel with pipe (45° ball valve).

**NOTE: Valve is located on 733' level of the Fuel Bldg.**

**Comment:**

\* **Performance Step: 5** Open [2QSS-26] (LS), Refueling Wtr Cooling Pump Disch to Fuel  
(Step IV.C.4) Pool Cool Sys, to begin makeup to the spent fuel pool.

**Standard:** Locates and simulates unlocking and opening 2QSS-26.

**NOTE: Valve is located on 718' level of North Safeguards  
Bldg.**

**CUE: After the valve has been opened, inform the  
Candidate that the fuel pool level is at 175 inches,  
stop the addition.**

**Comment:**

- \* **Performance Step: 6**  
(Step IV.C.5)
- Standard:** When the spent fuel pool reaches the desired level, Close AND Lock [2QSS-26], Refueling Water Cooling Pumps Discharge to Fuel Pool Cool Sys
- Simulates closing and locking 2QSS-26.
- Requests a second operator to perform an independent verification.
- CUE:** Inform the Candidate that another operator will perform an independent verification.
- NOTE:** Terminate the JPM at this point.
- Comment:**
- Terminating Cue:** When the Candidate closes 2QSS-26, the evaluation for this JPM is complete.

Job Performance Measure No.: 2002 NRC P1

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**INITIAL CONDITIONS:**

The plant is in Mode 1 and [A6-1B], Spent Fuel Pool Level High/Low is in alarm. Spent Fuel Pool level indicates less than 172 inches. The cause of the Spent Fuel Pool low level is normal evaporation.

The running and standby Fuel Pool Purification Pumps have been placed in Pull-To-Lock.

**INITIATING CUE:**

The Unit Supervisor directs you to add water to the Spent Fuel Pool using RWST Cooling Water Pump Train "A" in accordance with 2OM-20.4.G, Step IV.C. The Initial Conditions are satisfied.





(Denote Critical Steps with an asterisk)

**Performance Step: 1** If [2FWE\*P22], Turbine Driven Aux Feed Pump, is being placed  
(Step IV.A.1) in standby, Close or Verify Closed the following valves:

2MSS\*SOV105A, 2MSS\*SOV105B, 2MSS\*SOV105C,  
2MSS\*SOV105D, 2MSS\*SOV105E, 2MSS\*SOV105F

**Standard:** Contacts the Control Room and requests Operator to verify the  
valves are closed.

**CUE:** Control Room Operator reports that all valves are  
closed.

**Comment:**

\* **Performance Step: 2** To perform a trip locally, press the Manual Emergency Trip  
(Step IV.A.2.a) Lever.

**Standard:** Locates manual emergency trip lever and simulates pressing it.

**CUE:** The trip valve latch is angled 30° below horizontal.

**Comment:**

**Performance Step: 3** Verify [2FWE\*TTV22], Trip and Throttle Valve for 2FWE\*P22, is  
(Step IV.A.3) unlatched.

**Standard:** Verifies that valve is unlatched.

**CUE:** The trip and throttle valve is unlatched.

**Comment:**

**Performance Step: 4**  
(Step IV.A.4)

If [2FWE\*P22], Turbine Driven Auxiliary Feedwater Pump, will be restarted within the next 15 to 20 minutes, Relieve the governor oil pressure by performing the following:

**Standard:**

No action required (pump to be placed in standby per Initial Conditions).

**CUE:** If necessary, inform the Candidate the pump is being placed in standby.

**Comment:****\* Performance Step: 5**  
(Step IV.A.5)

Reset the Overspeed Trip Mechanism by performing the following:

**Standard:**

Simulates resetting the overspeed trip device by:

- Holding the overspeed trip connecting rod towards the trip and throttle valve.
- Ensuring the overspeed tappet washer flat side lines up with the overspeed trip lever (scribe mark on washer is aligned with punch mark on tappet housing).
- Releasing the connecting rod, allowing spring tension to maintain the reset condition.
- Ensuring washer flat edge is flush against vertical side of overspeed trip lever.

**Comment:**

- \* **Performance Step: 6**  
(Step IV.A.6)
- Standard:**
- Latch [2FWE\*TTV22], Trip and Throttle Valve for 2FWE\*P22, by turning the handwheel in the clockwise direction UNTIL the sliding nut and trip lever raise AND engage with the trip hook.
- Locates the trip and throttle valve handwheel.
- Simulates turning it in the clockwise direction to raise the latch and engage the trip hook.

**Comment:**

- \* **Performance Step: 7**  
(Step IV.A.7)
- Standard:**
- Slowly open [2FWE\*TTV22], Trip and Throttle Valve for 2FWE\*P22, by turning the handwheel counterclockwise AND Verify pump does NOT accelerate in an uncontrolled manner.
- Locates throttle valve handwheel and simulates turning it counterclockwise.
- Continues turning until the valve stops in the full open position.
- Requests performance of a concurrent verification.
- CUE:** Inform the Candidate that you (the Examiner) will perform the concurrent verification.

**Comment:**

- \* **Performance Step: 8**  
(Step IV.A.8.a)
- Standard:**
- Adjust [2FWE\*TTV22], Trip and Throttle Valve for 2FWE\*P22, ¼ turn off of the back seat.
- Locates throttle valve handwheel and simulates turning it 1/4-turn clockwise.

**Comment:**

**Performance Step: 9**  
(Step IV.A.8.b & c)

Verify the overspeed trip mechanism is reset.

**Standard:**

Contacts Control Room and verifies PCS Computer Point Y5172D, "TURB DR AFW PP TRIPPED FWE\*P22" indicates OPER.

**CUE: Control Room Operator reports that Computer Point Y5172D indicates OPER.****Comment:****Performance Step: 10**  
(Step IV.A.9.a)

Loosen wingnuts and remove cover for access to [2FWE\*2CSSOV101], Governor Oil Dump Pushbuttons.

**Standard:**

Locates and simulates removing cover.

**Comment:****\* Performance Step: 11**  
(Step IV.A.9.b & c)

Depress AND Hold [2FWE\*2CSSOV101], Governor Oil Dump Pushbuttons (2) simultaneously.

**Standard:**

Locates pushbuttons for governor oil dump.

Simulates depressing both pushbuttons simultaneously.

Holds pushbuttons until linkage movement ceases or 15 seconds has elapsed.

**CUE: All governor linkage movement has stopped. (If asked, 15 seconds has elapsed).****Comment:**

**Performance Step: 12** Replace cover and tighten wingnuts on access cover for  
(Step IV.A.9.d) [2FWE\*2CSSOV101], Governor Oil Dump Pushbuttons.

**Standard:** Simulates replacing cover.

**Comment:**

**Performance Step: 13** Notify the Unit 2 Control Room Operator that [2FWE\*P22],  
(Step IV.A.10) Turbine Driven Aux Feed Pump, is available.

**Standard:** Notifies Control Room Operator that 2FWE\*P22 is available.

**CUE:** Control Room acknowledges report that 2FWE\*P22  
is available.

**Comment:**

**Terminating Cue:** When the Candidate reports that 2FWE\*P22 is available, the  
evaluation for this JPM is complete.

Job Performance Measure No.: 2002 NRC P2

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**INITIAL CONDITIONS:**

- The plant is in Mode 1 at 50% power.
- No start signal exists for 2FWE\*P22 and the pump is stopped.
- The pump is not required to feed the steam generators.
- Maintenance has completed work on the trip and throttle valve for 2FWE\*P22.

**INITIATING CUE:**

The Unit Supervisor directs you to reset the trip and throttle valve in preparation to place 2FWE\*P22 in standby per 2OM-24.4.R.

Facility: **BVPS Unit 2** Task No.: 0011-024-06-013  
Task Title: Steamline Isolation Safeguards Test JPM No.: 2002 NRC P3  
K/A Reference: 012 A4.04 (3.3/3.3)

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance:   X   Actual Performance:             
Classroom            Simulator            Plant   X  

**READ TO THE EXAMINEE**

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

Initial Conditions:

- The plant is in Mode 1 at 100% power. All systems are in their normal operating alignment.
- 2OST-1.11A, Safeguards Protection System Train A Blockable Test (or 2OST-1.12A, Safeguards Protection System Train B Blockable Test) is in progress.
- The procedure has been completed up to Step VII.D.
- Communications have been established with the Control Room.

Task Standard: Complete test of Main Steam Isolation Relay K623A (or B) in accordance with 2OST-1.11A (or 2OST-1.12A).

Required Materials: Key #79 (Train A) or Key #126 (Train B)

General References: 2OST-1.11A, , Safeguards Protection System Train A Blockable Test, Rev. 9  
2OST-1.12A, Safeguards Protection System Train A Blockable Test, Rev. 12

Handouts: 2OST-1.11A, Rev. 9 or 2OST-1.12A, Rev. 12 (markup copy)

Initiating Cue: The Unit Supervisor directs you to perform the test of Main Steam Isolation Relay K623A (or B) beginning at Step VII.D.1 of the procedure.

Time Critical Task: No

Validation Time: 15 minutes



(Denote Critical Steps with an asterisk)

**NOTE: This JPM is designed to be used for either SSPS Train. During Protected Train "A" weeks, use 2OST-1.12A. During Protected Train "B" weeks, use 2OST-1.11A.**

**NOTE: Obtain key, unlock and open the appropriate Safeguards Test Cabinet. Provide CUES as appropriate.**

**Performance Step: 1**      Verify that the following White test lamps are ON: 022, 023 and  
(Step D.1)                      024.  
**Standard:**                      Locates and verifies white test lamps 022, 023 and 024 are ON.

**CUE:    White test lamps 022, 023 and 024 are ON.**

**Comment:**

\* **Performance Step: 2**      Place test switch TRN A (B) S806 in PUSH-TO-TEST.  
(Step D.2)  
**Standard:**                      Locates and places test switch TRN A (B) S806 in PUSH-TO-TEST.

**CUE:    Test Switch TRN A (B) S806 is in PUSH-TO-TEST.**

**Comment:**

(Denote Critical Steps with an asterisk)

**Performance Step: 3**      Verify Red test lamp 081 is ON.  
(Step D.3)

Locates and verifies red test lamp 081 is ON.

**CUE: Red test lamp 081 is ON.**

**Comment:**

**Performance Step: 4**      Verify that the following White test lamps are OFF: 022, 023 and  
(Step D.4)      024.

**Standard:**      Locates and verifies white test lamps 022, 023 and 024 are OFF.

**CUE: White test lamps 022, 023 and 024 are OFF.**

**Comment:**

\* **Performance Step: 5**      Depress AND Release test switch TRN A (B) S806.  
(Step D.5)

**Standard:**      Locates, depresses and releases test switch TRN A (B) S806.

**CUE: Test switch TRN A (B) S806 is depressed and released.**

**Comment:**

(Denote Critical Steps with an asterisk)

- \* **Performance Step: 6**      Depress each of the following White test lamps and verify each is  
(Step D.6)                      ON when depressed, and OFF when released: 022, 023 and  
024.

**Standard:**                      Depresses and verifies individually each lamp is ON when  
depressed and OFF when released.

**CUE:**    **White test lamps 022, 023 and 024 are ON when  
depressed and OFF when released.**

**Comment:**

- \* **Performance Step: 7**      Place reset switch TRN A (B) S821 to RESET and allow to  
(Step D.7)                      spring return to NORMAL.

**Standard:**                      Locates and places reset switch TRN A (B) S821 in RESET and  
allows it to spring return to NORMAL.

**CUE:**    **Reset Switch TRN A (B) S821 is RESET and is in  
NORMAL.**

**Comment:**

- \* **Performance Step: 8**      Depress each of the following White test lamps AND verify that  
(Step D.8)                      each remains OFF when depressed: 022, 023 and 024.

**Standard:**                      Depresses each test lamp individually and verifies each remains  
OFF when depressed.

**CUE:**    **White test lamps 022, 023 and 024 each remain OFF.**

**Comment:**

(Denote Critical Steps with an asterisk)

**Performance Step: 9** If a stuck relay has been detected, THEN notify I&C to repair the  
(Step D.9) relay. IF not stuck relay is detected, THEN N/A this step and  
proceed to Step VII.D.10.

**Standard:** Determines that no stuck relays are indicated, N/A's step and  
proceeds to next step.

**Comment:**

\* **Performance Step: 10** Place test switch TRN A (B) S806, Steam Line Isolation in  
(Step D.10) NORMAL.

**Standard:** Locates and places test switch TRN A (B) S806 in NORMAL.

**CUE: Test switch TRN A (B) S806 is in NORMAL.**

**Comment:**

**Performance Step: 11** Verify that the following White test lamps are ON: 022, 023 and  
(Step D.11) 024.

**Standard:** Locates and verifies each white test lamp is ON.

**CUE: White test lamps 022, 023 and 024 are ON.**

**Comment:**

(Denote Critical Steps with an asterisk)

**Performance Step: 12** Verify Red test light 081 is OFF.

(Step D.12)

**Standard:** Locates and verifies red test light 081 is OFF.

**CUE:** Red test light 081 is OFF.

**Comment:**

**Performance Step: 13** Verify Ann. A2-2H, SAFEGUARDS TEST CAB. TRAIN A/B IN TEST is OFF.

(Step D.12.a)

**Standard:** Contacts the Control Room and verifies annunciator A2-2H is OFF.

**CUE:** Control Room Operator reports that Annunciator A2-2H is OFF.

**NOTE:** Terminate the JPM at this point.

**Comment:**

**Terminating Cue:** When the Candidate verifies that annunciator A2-2H is OFF, the evaluation for this JPM is complete.

Job Performance Measure No.: 2002 NRC P3

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**INITIAL CONDITIONS:**

- The plant is in Mode 1 at 100% power. All systems are in their normal operating alignment.
- 2OST-1.11A, Safeguards Protection System Train A Blockable Test (or 2OST-1.12A, Safeguards Protection System Train B Blockable Test) is in progress.
- The procedure has been completed up to Step VII.D.
- Communications have been established with the Control Room.

**INITIATING CUE:**

The Unit Supervisor directs you to perform the test of Main Steam Isolation Relay K623A (or B) beginning at Step VII.D.1 of the procedure.