

**FINAL AS-ADMINISTERED ADMINISTRATIVE JPMS**

**FOR THE DUANE ARNOLD EXAMINATION - NOVEMBER 2002**



JOB PERFORMANCE MEASURE (JPM)

**SITE:** DAEC

**TASK TITLE:** CORE ALTERATION-DETERMINE ACTIONS FOR A MISPLACED FUEL ASSEMBLY DURING A CORE RE-LOAD

**JPM NUMBER:** 2.2.27-01 **REV.** 0

**RELATED PRA INFORMATION:** A.1.b

**TASK NUMBERS:** SRO 1.04

**K/A NUMBERS:** GENERIC 2.2.27 (2.6/3.5) SRO

**APPLICABLE METHOD OF TESTING:**

Discussion:  Simulate/walkthrough:  Perform:

**EVALUATION LOCATION:** In-Plant:  Control Room:   
 Simulator:  Other:

Time for Completion: 40 Minutes Time Critical: NO

Alternate Path / Faulted: NO

**TASK APPLICABILITY:**

<b>Developed by</b>	<i>[Signature]</i>	<u>9/16/02</u>
	Instructor	Date
<b>Validated by</b>	<i>[Signature]</i>	<u>9/16/02</u>
	Validation Instructor	Date
	(See JPM Validation Checklist Attachment 1)	
<b>Approved by</b>	<i>[Signature]</i>	<u>9/17/02</u>
	Training Supervisor-Operations	Date

JPM 2.2.27-01, Core Alterations-Determine Actions  
for a Misplaced Fuel Assembly  
During a Core Re-load, Rev. 0

JPM Number: 2.2.27-01

JPM Title: CORE ALTERATION-DETERMINE ACTIONS FOR A MISPLACED FUEL ASSEMBLY DURING A CORE RE-LOAD

Examinee: \_\_\_\_\_

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

Job Title: \_\_\_\_\_

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

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

Finish Time \_\_\_\_\_

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).</b>

EVALUATOR'S SIGNATURE: \_\_\_\_\_

*NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.*

JPM 2.2.27-01, Core Alterations-Determine Actions  
for a Misplaced Fuel Assembly  
During a Core Re-load, Rev. 0

JPM BRIEFING/TURNOVER

Add required site specific JPM briefing material here:

*i.e., This section is read once for the entire package of JPMs. It is not required to review this section for every JPM being performed in the package. The initial conditions and initiating cue(s)/tasks to be performed should be read and then provided to the examinee.*

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

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

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**Evaluator:** Give the candidate the following:

 **ATTACHMENT 1: RF-016 Fuel Moving Plan**

 Spent Fuel Pool map

 Core map

**INITIAL CONDITIONS:**

- It is 12:10 hours
- The plant is in a re-fueling outage and a core off-load/shuffle has just begun.
- The CORE ALTERATIONS PREREQUIST CHECKLIST ATTACHMENT 1 has been completed satisfactorily.
- You have just received a turnover and are the SRO in charge of the refueling activities on the refuel floor.
- You are currently on step 14 of the Fuel Moving Plan.
- The first 13 steps were moves from the Core to the Spent Fuel Pool.
- Fuel Assembly YJ9902, in the Core at coordinates 13-10 has been verified and grappled, and being pulled from the core.
- 

**INITIATING CUES (IF APPLICABLE):**

- Given the Fuel Moving Plan, the Spent Fuel Pool and Core map, walk the evaluator through the next Five (5) fuel moving steps.

JPM 2.2.27-01, Core Alterations-Determine Actions  
for a Misplaced Fuel Assembly  
During a Core Re-load, Rev. 0

**JPM PERFORMANCE INFORMATION**

**Required Materials:** RFP 403

**General References:** RFP 403, Rev. 6

**Task Standards:**

1. When the error is discovered, Stop Core Alterations
2. Identify the step when the error occurred.
3. Review and does not approve the Correction Fuel Moving plan.

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

**NOTE:** When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

JPM 2.2.27-01, Core Alterations-Determine Actions  
for a Misplaced Fuel Assembly  
During a Core Re-load, Rev. 0

**Performance Step:**

**Critical: Y**

SRO will review the fuel-moving plan and determine that there is a Fuel Assembly in the position where the currently grappled bundle is going. (17-04). He will then perform the following:

- **Stop** core alterations, (fuel move)
- Direct that the current bundle be set back in its previous position. (13-10).
- Notify the SM in the control room

**Standard:**

- **Stop** core alterations, (fuel move)
- Direct that the current bundle be set back in its previous position. (13-10). *He may ask for the REs concurrence. (Due to the situation the below prompt may be given to remind the Candidate that 13-10 is being moved. If prompted and he gives the correct response, the **task is SAT.**)*
- Notify the SM in the control room

**Performance:**

**SATISFACTORY** \_\_\_\_\_ **UNSATISFACTORY** \_\_\_\_\_

**Comments:**

If the SRO does not mention the Fuel Assembly that is currently grappled: As the SM, ask the SRO what he intends to do with the grappled Fuel Assembly?

Response: Fuel Assembly should go back where it originally came from

**Evaluator**

In this space write the response given by the SRO if it is different than the Standard.

If the SRO does not identify why he is taking actions:

**Role-Play** as the RE and ask why we are stopping the fuel move. When he indicates an error has been made ask him to show you the error so he can prepare a corrected Fuel Moving plan.

JPM 2.2.27-01, Core Alterations-Determine Actions  
for a Misplaced Fuel Assembly  
During a Core Re-load, Rev. 0

<b>Performance Step:</b> <b>Critical: Y</b>	SRO will review the Fuel Moving Plan and determine that in step 4, Fuel Assembly 17-14 was taken, and it should have been 17-04.
<b>Standard:</b>	Identify the error occurred in step #4
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	Cue: When the error has been located, inform the SRO that the RE has developed a Fuel Moving Plan that will correct the error. Ask the SRO to review the new Fuel Moving Plan.  <b>CUE: Provide the candidate with <u>ATTACHMENT 2: Fuel Moving Plan</u> correction sheet.</b>

<b>Performance Step:</b> <b>Critical: Y</b>	SRO will review the new plan, and determine an error in the plan. The fuel assembly that will be taken back will have the wrong SFP coordinates on it
<b>Standard:</b>	Error in the correction plan discovered (SFP Coordinate 04-12-00 should be 03-12-00)
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	While the Candidate is reviewing the corrected fuel plan, if he asks if YJ4501 is the correct number on the wrong assembly, inform him that the number has been verified to be correct. After the SRO reviews the new plan: <ul style="list-style-type: none"><li>• If he finds the error, inform him that the RE will correct the error and return with another copy of the plan then terminate the JPM.</li></ul>

**Terminating Cues:** Terminate the scenario when RE leaves to correct the error in the new plan.

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

JPM 2.2.27-01, Core Alterations-Determine Actions  
for a Misplaced Fuel Assembly  
During a Core Re-load, Rev. 0

**ATTACHMENT 1**  
**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all references identified, current, accurate, and available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

*J.R. Sullivan 9/16/02*  
Validation Personnel /Date

\_\_\_\_\_  
Validation Personnel/Date

\_\_\_\_\_  
Validation Personnel /Date

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Validation Personnel/Date

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Validation Personnel /Date

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Validation Personnel/Date



**ATTACHMENT 1**

Page 1		Of																38	
RF-016 Fuel Moving Plan																			
Plan Number		98003																	
Step Num.	Serial Number	Comp type	ICA	Move from Coord	Orient	ICA	Move to Coord	Orient	Blade Guide Orient	Cont Rod W/I	Date Of Xfer	Time of Xfer	Z-pos	RPE	SRO	Assemb Chan	Assemb Dechan		
1	YJF372	FA	COR	29-08	SW	SFP	03-13-02	ANY	N/A	I	Today	0950	140.2	?	SRG				
2	YJ9865	FA	COR	23-10	NE	SFP	05-15-02	NE	N/A	I	Today	1000	140.3	?	SRG				
3	YJ9839	FA	COR	21-24	SW	SFP	05-15-07	NE	N/A	I	Today	1010	140.1	?	SRG				
4	YJ5405	FA	COR	17-04	SW	SFP	03-12-00	ANY	N/A	I	Today	1020	140.2	?	SRG				
5	YJ5374	FA	COR	15-34	NE	SFP	03-12-01	ANY	N/A	I	Today	1030	140.3	?	SRG				
6	YJ5462	FA	COR	05-28	SW	SFP	03-12-02	ANY	N/A	I	Today	1040	140.1	?	SRG				
7	YJ5434	FA	COR	05-32	SW	SFP	03-12-03	ANY	N/A	I	Today	1050	140.2	?	SRG				
8	YJ5469	FA	COR	17-06	SE	SFP	03-12-04	ANY	N/A	I	Today	1105	140.3	?	SRG				
9	YJ5441	FA	COR	13-06	SE	SFP	03-12-05	ANY	N/A	I	Today	1115	140.1	?	SRG				
10	YJ5377	FA	COR	15-12	NW	SFP	03-12-06	ANY	N/A	I	Today	1130	140.2	?	SRG				
11	YJ5428	FA	COR	31-22	NE	SFP	03-12-07	ANY	N/A	I	Today	1140	140.3	?	SRG				
12	YJ5373	FA	COR	11-16	NW	SFP	03-13-00	ANY	N/A	I	Today	1150	140.1	?	SRG				
13	YJ5437	FA	COR	05-14	SE	SFP	03-13-01	ANY	N/A	I	Today	1200	140.2	?	SRG				
<b>NOTE: BEGINNING IN-CORE MOVES</b>																			
14	YJ9902	FA	COR	13-10	SE	COR	17-04	SW	N/A	I									
15	YJF273	FA	COR	11-28	NW	COR	15-34	NE	N/A	I									
16	YJL501	FA	SFP	04-20-05	SW	COR	11-28	NW	N/A	I									
17	YJF344	FA	COR	09-30	SE	COR	05-28	SW	N/A	I									
18	YJL437	FA	SFP	04-17-00	SW	COR	09-30	SE	N/A	I									
19	YJ9807	FA	COR	09-28	SW	COR	05-32	SW	N/A	I									
COMMENTS																			





## TURNOVER SHEET

- **ATTACHMENT 1: RF-016 Fuel Moving Plan**
- Spent Fuel Pool
- Core map

### INITIAL CONDITIONS:

- It is 12:10 hours
- The plant is in a re-fueling outage and a core off-load/shuffle has just begun.
- The CORE ALTERATIONS PREREQUIST CHECKLIST ATTACHMENT 1 completed satisfactorily.
- You have just received a turnover and are the SRO in charge of the refueling activities on the refuel floor.
- You are currently on step 14 of the Fuel Moving Plan.
- The first 13 steps were moves from the Core to the Spent Fuel Pool.
- Fuel Assembly YJ9902, in the Core at coordinates 13-10 has been verified and grappled, and being pulled from the core.

### INITIATING CUES (IF APPLICABLE):

- Given the Fuel Moving Plan, the Spent Fuel Pool and Core map, walk the evaluator through the next five (5) fuel moving steps.



JOB PERFORMANCE MEASURE (JPM)

SITE: DAEC

TASK TITLE: DETERMINE REPORTABILITY (GROUP 1 ISOLATION)

JPM NUMBER: 2.1.14-02 REV. 1

RELATED PRA INFORMATION:

TASK NUMBERS: SRO 1.03 *A.1.a*

K/A NUMBERS: 2.1.14 (SRO 3.3) *SRO*

APPLICABLE METHOD OF TESTING:

Discussion:  Simulate/walkthrough:  Perform:

EVALUATION LOCATION: In-Plant:  Control Room:   
 Simulator:  Other:

Time for Completion: 30 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO

<b>Developed by:</b>	<i>[Signature]</i>	<i>9/15/02</i>
	Instructor	Date
<b>Validated by:</b>	<i>[Signature]</i>	<i>9/15/02</i>
	Validation Instructor	Date
	(See JPM Validation Checklist, Attachment 1)	
<b>Approved by:</b>	<i>[Signature]</i>	<i>9/17/02</i>
	Training Supervisor-Operations	Date

JPM Number: 2.1.14-02

JPM Title: DETERMINE REPORTABILITY (GROUP 1 ISOLATION)

Examinee: \_\_\_\_\_

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

Job Title: \_\_\_\_\_

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

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

Finish Time \_\_\_\_\_

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK:</b> (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: \_\_\_\_\_

*NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.*

JPM BRIEFING/TURNOVER

*Add required site specific JPM briefing material here:*

*i.e., This section is read once for the entire package of JPMs. It is not required to review this section for every JPM being performed in the package. The initial conditions and initiating cue(s)/tasks to be performed should be read and then provided to the examinee.*

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

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

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**Evaluator:**

 **Provide the operator with the STUDENT COPY of this information and ATTACHMENT 1: AR information Sheets 1, 2 and 3.**

**INITIAL CONDITIONS:**

- Today is 11/18/2002 at approximately 1700.
- The plant was operating at 1000 MWT with the C Main Steam line isolated due the "C" outboard MSIV failing to close within its T.S. required time limits.
- The "C" outboard MSIV has been closed and de-activated per T.S. and ACP 1410.7
- The only LCO in effect at the time was for the C Outboard MSIV (CV-4419), 3.6.1.3. Condition A.
- The surveillance began at 1620. During this surveillance, while Turbine SV-2 was being closed, the "A" and "B" steam line flows increased dramatically and a Group 1 isolation occurred at 1630.
- The cause of the flow problem is under investigation.
- All control rods inserted on the resulting scram.
- RPV water level dropped below 170 inches and was recovered with the Condensate and Feed system.
- HPCI and RCIC were manually started in CST-CST mode for pressure control. Neither system injected into the RPV.
- Plant management decided not to declare an EAL per EPIP 1.1.

- A preliminary review of this event questions the ability of the equalizing header to redistribute flow to the available turbine valves during testing. There is NO evidence of a steam leak in the Turbine building.
- The plant is now stable at normal RPV level and 900-950 psig.
- This event occurred 30 minutes ago.

**INITIATING CUES (IF APPLICABLE):**

As the OSM determine the reportability of this event by completing the "Event Review" Section of the Action Request provided. (**Attachment 1 sheet 3.**)

Also state the requirements for:

- Reporting Time limits
- Who should be notified



### JPM PERFORMANCE INFORMATION

**Required Materials:** DAEC Technical Specifications (ITS)  
ACP 1402.3, "Plant Regulatory Reporting Activities"  
ACP 114.5, "Action Request System"  
10CFR50  
ACP 101.6, "Fitness for Duty"  
NGD 114.5, AR Form 294001-17 (Attachment A of this JPM)  
EPIP 1.1

**General References:** DAEC Technical Specifications (ITS)  
ACP 1402.3, Rev. 16  
ACP 114.5, Rev. 22  
10CFR50  
ACP 101.6, Rev. 05  
EPIP 1.1, Rev. 18

**Task Standards:**

1. INE checked Yes.
2. RE checked Yes.
3. Four-Hour Report identified.

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

**NOTE:** When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b> <b>Critical: Y</b>	Determine if this event should be an Immediate Notification Event (INE)
<b>Standard:</b>	INE Selected.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	<p>10CFR 50.72(b)(2)(iv)(B) is the correct reference for the 4 hour reportability. It is not necessary for successful completion of this step.</p> <p>10CFR 50.72(b)(3)(iv)(A) is the correct reference for the 8 hour reportability. It is not necessary for successful completion of this step.</p> <p>This is a <u>VALID</u> ESF actuation per ACP 1402.3, Section 2.0 and Section 3.2.1. and a valid RPS actuation.</p> <p>Per ACP 1402.3 Section 2.0, an INE is any incident that requires a 1, 4, 24 ENS telephone notification to the NRC.</p>

<b>Performance Step:</b> <b>Critical: Y</b>	Determine if this event should be a Reportable Event. (RE)
<b>Standard:</b>	RE Selected.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	<p>10CFR 50.73(a)(2)(iv)(A) is the correct reference. It is not necessary for successful completion of this step.</p> <p>Per ACP 1402.3 Attachment 2, Page 1 of 6.</p>

<b>Performance Step:</b>	Determine if this event should be reported as an Emergency Class Event.
<b>Critical:</b>	N
<b>Standard:</b>	EAL either selected or not selected. (Probably not selected)
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	There is no EPIP classification for this event. If the OSM/OSS declares an Unusual Event HU5 based on his own judgment, then the answer can be Yes.

<b>Performance Step:</b>	Determine if this event resulted in a Limiting Condition for Operation (LCO).
<b>Critical:</b>	N
<b>Standard:</b>	LCO not selected.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step:</b>	Determine if this event resulted in a Technical Specification Violation.
<b>Critical:</b>	N
<b>Standard:</b>	TSV either selected or not selected. (Probably not selected)
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	A possible reference to T.S. 5.4.1 could be made but more information would probably be required.

<b>Performance Step:</b> <b>Critical: N</b>	Determine if the requirements of ACP 101.6 "Fitness for Duty" is applicable to this event.
<b>Standard:</b>	FFD either selected or not selected. (Probably not selected)
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	This is a judgment call on the part of the OSM/OSS per ACP 101.6, Section 3.1.11.

<b>Performance Step:</b> <b>Critical: Y</b>	Determine the requirements for time of notification.
<b>Standard:</b>	Four Hour Report identified.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	Per ACP 1402.3 Attachment 3, Page 5 of 9.  There is also an 8-hour ESF actuation report but it is not the most limiting and not a critical step.

<b>Performance Step:</b> <b>Critical: Y</b>	Notify designated plant management personnel as soon as time/resources permit.
<b>Standard:</b>	The required personnel are notified: <ul style="list-style-type: none"><li>• Operations Manager</li><li>• Manager, Licensing</li><li>• Plant Manager</li><li>• Site Vice President</li><li>• NRC Resident Inspector</li><li>• NRC Telephone via FTS-2000 – <b>(CRITICAL TASK)</b></li></ul>
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	<u>NOTE</u> : The <b>ONLY</b> critical task is to select notification of the NRC by telephone.

**Terminating Cues:** Applicable portions of the AR Event Review is complete.

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

## TURNOVER SHEET

### INITIAL CONDITIONS:

- Today is 11/18/2002 at approximately 1700.
- The plant was operating at 1000 MWT with the C Main Steam line isolated due the "C" outboard MSIV failing to close within its T.S. required time limits.
- The "C" outboard MSIV has been closed and de-activated per T.S. and ACP 1410.7
- The only LCO in effect at the time was for the C Outboard MSIV (CV-4419), 3.6.1.3. Condition A.
- The surveillance began at 1620. During this surveillance, while Turbine SV-2 was being closed, the "A" and "B" steam line flows increased dramatically and a Group 1 isolation occurred at 1630.
- The cause of the flow problem is under investigation.
- All control rods inserted on the resulting scram.
- RPV water level dropped below 170 inches and was recovered with the Condensate and Feed system.
- HPCI and RCIC were manually started in CST-CST mode for pressure control. Neither system injected into the RPV.
- Plant management decided not to declare an EAL per EPIP 1.1.
- A preliminary review of this event questions the ability of the equalizing header to redistribute flow to the available turbine valves during testing. There is NO evidence of a steam leak in the Turbine building.
- The plant is now stable at normal RPV level and 900-950 psig.
- This event occurred 30 minutes ago.

### INITIATING CUES (IF APPLICABLE):

As the OSM determine the reportability of this event by completing the "Event Review" Section of the Action Request provided. **(Attachment 1 sheet 3.)**

Also state the requirements for:

- Reporting Time limits
- Who should be notified by title

## STUDENT COPY

### INITIAL CONDITIONS:

- Today is 11/18/2002 at approximately 1700.
- The plant was operating at 1000 MWT with the C Main Steam line isolated due the "C" outboard MSIV failing to close within its T.S. required time limits.
- The "C" outboard MSIV has been closed and de-activated per T.S. and ACP 1410.7
- The only LCO in effect at the time was for the C Outboard MSIV (CV-4419), 3.6.1.3. Condition A.
- The surveillance began at 1620. During this surveillance, while Turbine SV-2 was being closed, the "A" and "B" steam line flows increased dramatically and a Group 1 isolation occurred at 1630.
- The cause of the flow problem is under investigation.
- All control rods inserted on the resulting scram.
- RPV water level dropped below 170 inches and was recovered with the Condensate and Feed system.
- HPCI and RCIC were manually started in CST-CST mode for pressure control. Neither system injected into the RPV.
- Plant management decided not to declare an EAL per EPIP 1.1.
- A preliminary review of this event questions the ability of the equalizing header to redistribute flow to the available turbine valves during testing. There is NO evidence of a steam leak in the Turbine building.
- The plant is now stable at normal RPV level and 900-950 psig.
- This event occurred 30 minutes ago.

### INITIATING CUES:

As the OSM determine the reportability of this event by completing the "Event Review" Section of the Action Request provided. **(Attachment 1 sheet 3.)**

(Note: This will normally be done on computer but manually fill out the form for the purposes of this exam)

Also state the requirements for:

- Reporting Time limits
- Who should be notified by title

**ATTACHMENT 1**

**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all references identified, current, accurate, and available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

*J.P. Sullivan* 9/15/02  
 Validation Personnel /Date

\_\_\_\_\_  
 Validation Personnel/Date

\_\_\_\_\_  
 Validation Personnel /Date

\_\_\_\_\_  
 Validation Personnel/Date

\_\_\_\_\_  
 Validation Personnel /Date

\_\_\_\_\_  
 Validation Personnel/Date



JOB PERFORMANCE MEASURE (JPM)

SITE: DAEC  
TASK TITLE: Site Evacuation While Escorting A Visitor.

JPM NUMBER: 2.4.39-xx REV. 0

RELATED PRA INFORMATION:

A.4 RO

TASK NUMBERS:

K/A NUMBERS: Generic 2.4.39

APPLICABLE METHOD OF TESTING:

Discussion:  Simulate/walkthrough:  Perform:

EVALUATION LOCATION: In-Plant:  Control Room:   
Simulator:  Other:

Time for Completion: 30 Minutes Time Critical: YES

Alternate Path / Faulted: NO

TASK APPLICABILITY: RO/SRO

Additional signatures may be added as needed.

<b>Developed by:</b>		9/15/02
	Instructor	Date
<b>Validated by:</b>		9/15/02
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
<b>Approved by:</b>		9/17/02
	Training Supervisor	Date



JPM Number: 2.4.39-xx

JPM Title: Site Evacuation While Escorting A Visitor.

Examinee: \_\_\_\_\_

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

Job Title: \_\_\_\_\_

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

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

Finish Time \_\_\_\_\_

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK:</b> (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: \_\_\_\_\_

*NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.*

**JPM BRIEFING/TURNOVER**

*Add required site specific JPM briefing material here:  
i.e., This section is read once for the entire package of JPMs. It is not required to review this section for every JPM being performed in the package. The initial conditions and initiating cue(s)/tasks to be performed should be read and then provided to the examinee.*

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

**!!! IMPORTANT!!!**

**IF** the evaluator has a visitor badge **DO NOT** give the candidate the Initial Conditions, the Initiating Cues, or the Turnover Sheet. These are not required for someone who is an actual visitor.

**ALSO** when the evaluator is ready to start this JPM use **ATTACHMENT 3**.

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

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- I am a visitor on site.
- I am properly badged and have been briefed by Security and Health Physics.
- I have been touring the plant with another operator.
- The current escort has an emergency at home and must leave.
- You are the Auxiliary Operator and the OSS has directed you to take over escort duties until someone else can relieve you.
- Security has authorized the exchange of escorts.

**INITIATING CUES:**

- Take time to review the "Visitor and escort Security Regulations" card provided by the operator you are relieving.
- Inform me when you have completed the review of the "Visitor and escort Security Regulations" and are ready to continue with the tour.

### JPM PERFORMANCE INFORMATION

**Required Materials:** Duane Arnold Energy Center – Visitor and Escort Security Regulation card

**General References:** EPIP 1.3 Rev 9

**Task Standards:**  
1. Escort the visitor to the Security Control Point.  
2. Report to the Control Room for accountability.

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

**NOTE:** When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b>	The candidate receives indication of a plant assembly. (Attachment 2 or 3)
<b>Critical:</b> N	
<b>Standard:</b>	The candidate recognizes that a plant assemble has been ordered.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	<p><b>Cue:</b></p> <ul style="list-style-type: none"> <li>IF the evaluator has a visitors badge hand the candidate <b>Attachment 3</b>.</li> <li>IF the evaluator <b>does not</b> have a visitors badge hand the candidate <b>Attachment 2</b></li> </ul> <p>Note: If the evaluator does not have a visitor badge the passage through doors will not be the same as if the visitor had a visitor badge. This is not being evaluated and Attachment 2 explains this to the candidate.</p> <p>Note: The time critical portion of this JPM starts after the candidate acknowledges he understands Attachment 2/3 or starts performing actions based on attachment 2/3.</p>

**Time Critical**  
**Start Time:** \_\_\_\_\_

<b>Performance Step:</b> <b>Critical: Y</b>	Escort the visitor to the Security Control Point and inform Security you are turning over the visitor to the due to the evacuation alarm.
<b>Standard:</b>	The candidate takes the visitor to the SCP and turns him over to Security.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	When you reach the SCP act as Security and when an attempt to turn over the visitor is made inform the candidate:  <b>CUE: "At this point assume security has taken responsibility for me as the visitor. Continue with any further actions that you would take for this event."</b>

<b>Performance Step:</b> <b>Critical: Y</b>	As the Auxiliary operator the candidate should report to the Control Room for accountability.
<b>Standard:</b>	Report to the Control Room.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	If the candidate calls the control room, for the purposes of this JPM, he would have been accounted for and would satisfy this JPM step.  <b>The candidate has to have the visitor to the SCP and returned to the control room <u>or</u> has notified the control room of his whereabouts within 30 minutes of the evacuation alarm to complete this step satisfactorily.</b>

**Terminating Cues:** When the control room has been reached or has been contacted for accountability and the visitor is at the SCP.  
The candidate and visitor have to be accounted for within 30 minutes to meet the EP requirements.

**Time Critical and JPM Stop Time:** \_\_\_\_\_

## TURNOVER SHEET

### INITIAL CONDITIONS:

- I am a visitor on site.
- I am properly badged and have been briefed by Security and Health Physics.
- I have been touring the plant with another operator.
- The current escort has an emergency at home and must leave.
- You are to take over escort duties.
- Security has authorized the exchange of escorts.

### INITIATING CUES:

- Take time to review the "Visitor and escort Security Regulations" card provided by the operator you are relieving.
- Inform me when you have completed the review of the "Visitor and escort Security Regulations" and are ready to continue with the tour.


**ATTACHMENT 1**

**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all references identified, current, accurate, and available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

 9/16/02  
Validation Personnel /Date

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Validation Personnel/Date

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Validation Personnel /Date

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Validation Personnel/Date

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Validation Personnel /Date

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Validation Personnel/Date

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Validation Personnel /Date

\_\_\_\_\_  
Validation Personnel/Date

## ATTACHMENT 2

You hear a plant alarm for 5 to 10 seconds followed by the following announcement:

“Attention all personnel, an Alert has been declared. Emergency Response Personnel shall report to their designated Emergency Response Facilities. Emergency Personnel assigned to the EOF shall depart the site via the South access and report to the EOF. All other personnel shall report to their designated onsite Assembly locations.”

The alarm and announcement is made two more times.

### NOTE:

**Passage through plant doors is NOT being evaluated during this JPM.**

**It is understood that the evaluator does NOT have a visitor badge and that passing through doors would be performed differently if they were wearing a visitors badge.**

**Egress through plant doors the same way as before this JPM began.**



**THIS TASK IS TIME CRITICAL**

## ATTACHMENT 3

— You hear a plant alarm for 5 to 10 seconds followed by the following announcement:

“Attention all personnel, an Alert has been declared. Emergency Response Personnel shall report to their designated Emergency Response Facilities. Emergency Personnel assigned to the EOF shall depart the site via the South access and report to the EOF. All other personnel shall report to their designated onsite Assembly locations.”

The alarm and announcement is made two more times.



**THIS TASK IS TIME CRITICAL**



# DUANE ARNOLD ENERGY CENTER

## JOB PERFORMANCE MEASURE

NUMBER: 2.3.1-04

TASK NUMBER: HP-SELF.004

TITLE: Gain Access to a High Radiation Area

Rev. 2

A.3

DEVELOPED BY:

Michael Fisher  
Instructor

10/09/01  
Date

VALIDATED BY:

George J. Rudek  
SME/Instructor

10-31-01  
Date

REVIEWED BY:

William J. [Signature]  
Plant Reviewer

11/14/01  
Date

APPROVED BY:

[Signature]  
Training Supervisor-Operations

11/14/01  
Date

**Read to the operator the following information:**

**NOTE:**

**Start this JPM in the Reactor Building.**

**INITIAL CONDITIONS:**

1. The plant is in normal full power operation.
2. Assume you are a (Senior) Reactor Operator in the Reactor Building doing maintenance planning.
3. You are to demonstrate the proper verification techniques while performing this JPM.

**INITIATING CUES:**

As Shift Supervisor, I direct you to go to the CAVs Area and verify the out-of-service CAV vessel 1T-415A isolation valves V-89-150, V-89-151, V-89-154, V-89-155 are closed, bypass valve V-89-153 and drain valve V-89-152 are open.

**This task is not time critical.**

**Inform the evaluator when you have completed the task.**

**DUANE ARNOLD ENERGY CENTER**

**JOB PERFORMANCE MEASURE**

<b>JPM No.</b> 2.3.1-04	<b>JPM Description:</b> Gain access to a high radiation area		
<b>Task No.</b> HP-SELF.004	<b>Task Description:</b> Prepare for Self Coverage		
<b>K/A Reference:</b> 2.3.1	2.6/3.6		
<b>APPLICABLE METHOD OF TESTING:</b> RO/SRO			
<b>Simulate Performance</b>	X	<b>Actual Performance</b>	
<b>Simulator</b>	In-Plant	X	Control Room
<b>Time for Completion:</b> 30 minutes			


# JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE

All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 7 through 10.

JPM No. 2.3.1-04 JPM Title Gain access to a high radiation area

- 1. Task description and number, JPM description and number are identified
- 2. Task elements identified and K/A references are included
- 3. Performance location specified
  - a. in-plant
  - b. control room
  - c. simulator
- 4. Initial conditions and cues identified
  - a. setup, required materials, and procedure
  - b. malfunctions and instructor actions
  - c. initiating and terminating cues
- 5. Task standards identified and verified by SME review
- 6. Critical tasks/steps identified meet criteria and identified with a "C"
- 7. Verify JPM steps fit the most current procedures  
 Procedure Rev. 10 Date 10/09/01 ACP 1411.22
- 8. Pilot test JPM 12 8/1/2002
  - a. verify cues both verbal and visual are free of conflict
  - b. ensure performance time is accurate
- 9. If the JPM cannot be performed as written with proper responses, then revise the JPM
- 10. When JPM is revalidated, SME/Instructor signs and dates JPM

	<u>9/15/02</u>
SME/Instructor	Date
SME/Instructor	Date
SME/Instructor	Date

**SIMULATOR SETUP:**

None

**EVENT TRIGGERS:**

None

**MALFUNCTIONS:**

None

**OVERRIDES:**

None

**REMOTE FUNCTIONS:**

None

**INSTRUCTOR ACTIONS:**

1. Verify that the CAVs area is currently posted as a High Rad Area.
2. Start this JPM in the Reactor Building.
3. Read initial conditions and initiating cues to the operator.

**TASK STANDARDS:**

1. Operator does not attempt to enter the High Rad Area improperly.
2. The need to sign in on another RWP (which will allow entry) is identified.
3. Current survey map reviewed.
4. HP briefing requested.

**REQUIRED MATERIALS:**

RWP 10, Job Step 2  
RWP 10, Job Step 6  
RWP 33, Job Step 1  
Marked-up copy of P&ID Bech-M189<3>  
Digital picture of the CAVs area  
CAVs Area Survey Map

**GENERAL REFERENCES:**

ACP 1411.22, Control of Access to Radiological Areas

## PERFORMANCE INFORMATION

NOTE:

Critical steps are denoted with a "C". Failure to meet the standard for this step constitutes failure.

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

### CAUTION

DO NOT allow the examinee to cross the roped-off boundary of the High Rad Area. Use physical restraint if necessary. If an improper entry is attempted, the JPM will have been performed unsatisfactorily and should be ended by reading the Terminating Cue.

PERFORMANCE STEP: Critical: C	Operator identifies the need to enter a High Rad area.
STANDARD:	Operator does not attempt to enter the High Rad Area improperly.
<p>COMMENTS:</p> <p>The examinee need not enter the Reactor Building 786' level area if he recognizes that the CAV vessel valves are in a High Rad Area and begins to work on gaining access.</p> <p>(After the need to enter a High Rad Area is identified),</p> <p>CUE:</p> <p>The intent of this JPM is to demonstrate the actions necessary to enter a High Rad Area. An actual entry will not be performed but you are to continue to walkthrough your actions as if it were. I will role play plant support personnel as necessary.</p>	

Note:

Do not allow the on-shift HPs to become involved with this JPM other than to provide the book of survey maps.

PERFORMANCE STEP: Critical: C	Operator returns to Access Control to review and identify an RWP which will allow entry.
STANDARD:	The need to sign in on another RWP (which will allow entry) is identified.
<p>COMMENTS:</p> <p>The correct RWP for operations duties in HRA/LHRA areas is RWP 10, Job Step 6.</p> <p>Role Play the On-Shift Health Physics Technician (HP) as necessary. It is preferable for the candidate to identify the correct RWP but this information may be given by the HP/evaluator upon request.</p>	

PERFORMANCE STEP: Critical: C	Review a current survey for specific locations of high dose and low dose standby areas.
STANDARD:	Current survey map reviewed and candidate demonstrates knowledge of area dose rates consistent with survey map.
COMMENTS:  (If not stated in the review of the survey map) CUE: Identify the maximum dose rates in the CAVs area.	

PERFORMANCE STEP: Critical: C	Request a pre-job briefing by the HP.
STANDARD:	HP briefing requested.
COMMENTS: CUE: Instruct the student to provide a reverse brief including: <ol style="list-style-type: none"> <li>1. Dosimeter requirements</li> <li>2. Radiation levels in the area</li> <li>3. Clothing requirements</li> <li>4. Dose Limits</li> </ol> The student should provide a reverse brief that contains the following items from RWP 10 Job Step 6: <ol style="list-style-type: none"> <li>1. Dosimeter required by RWP (Electronic Dosimeter)</li> <li>2. Radiation levels consistent with survey map of the CAVs area (may have been covered in previous step)</li> <li>3. Minimum of gloves and booties. (Candidate may defer this to the HP and this would satisfactorily satisfy this step)</li> <li>4. Dose limits as stated on RWP.</li> </ol>	

Note:

The operator should have already demonstrated the ability to sign in on a RWP, so signing in on the new RWP is not necessary.

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

**TERMINATING CUES:** The intent of this JPM was to demonstrate the actions necessary to enter a High Rad Area. This JPM is complete.







JOB PERFORMANCE MEASURE (JPM)

SITE: DAEC

TASK TITLE: Dispatch An Operator Into The Plant When The TSC/OSC Are Not Activated

JPM NUMBER: 2.4.38-02 REV. 3

RELATED PRA INFORMATION:

TASK NUMBERS: SRO 3.01

A.4 SRO

K/A NUMBERS: 2.4.38 SRO 4.0

APPLICABLE METHOD OF TESTING:

Discussion:  Simulate/walkthrough:  Perform:

EVALUATION LOCATION: In-Plant:  Control Room:

Simulator:  Other:

Time for Completion: 20 Minutes Time Critical: N

Alternate Path / Faulted: N

TASK APPLICABILITY: SRO

Additional signatures may be added as needed.

Developed by:		9/16/02
	Instructor	Date
Validated by:		9/16/02
	Validation Instructor	Date
	(See JPM Validation Checklist, Attachment 1)	
Approved by:		9/17/02
	Training Supervisor	Date



JPM BRIEFING/TURNOVER

Add required site specific JPM briefing material here:  
i.e., This section is read once for the entire package of JPMs. It is not required to review this section for every JPM being performed in the package. The initial conditions and initiating cue(s)/tasks to be performed should be read and then provided to the examinee.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.

If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.

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

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**



**EVALUATOR:** Provide Candidate with **ATTACHMENT A: DOSE PROJECTION & ARM DATA SHEET**



**EVALUATOR:** Provide Candidate with **SEP 305 ATTACHMENT 1 marked to step 7(b).**

**INITIAL CONDITIONS:**

- You are on weekend duty as the Shift Manager.
- An Alert emergency FA-1 has been declared due to a Loss of Coolant accident.
- The Evacuation alarm has been sounded and a Plant Assembly has been initiated.
- RPV level is being maintained at approximately 20 inches with both Core Spray pumps, aligned to the CSTs, and the A Loop of RHR in the LPCI mode.
- There is no indication of fuel damage at this time, but radiation levels are rising in the Reactor Building. Refuel Floor ARM readings have doubled and some readings on the Reactor Bldg. 3rd floor have risen by a factor of 10. At present, there are no EOP-3 entry conditions. Operators are continuing to monitor in-plant and effluent radiation levels. **See Attachment A of this JPM.**

JPM 2.4.38-02, Dispatch an operator into the plant when the TSC/OSC are not activated., Rev. 3

- There are indications of RHR suction strainer blockage on the B Loop of RHR. Operators are performing "ECCS Suction Strainer Blockage" SEP 305 Attachment 1. The Radwaste operator confirmed that V-19-9 was closed. Operators have completed to Step 7(b) and are prepared to back flush around the D RHR pump as soon as an operator can be dispatched.
- The TSC and OSC are not yet operational.
- I will role-play the operator being dispatched.

**INITIATING CUES (IF APPLICABLE):**

- Dispatch an operator to back flush around the D RHR pump in this plant condition.

**This task is NOT time critical.**

**Inform the evaluator when you have completed the task.**

**JPM PERFORMANCE INFORMATION**

- Required Materials:** EPIP 2.5  
SEP 305  
Provide a copy of Attachment A, In-Plant Radiation Level.  
Provide a copy of SEP 305 Attachment 1 marked to Step 7(b).
- General References:** EPIP 2.5  
SEP 305
- Task Standards:**
1. Determines that the OSM/OSS has the authority to dispatch operators.
  2. Operator briefed on radiological concerns.

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

**NOTE:** When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b> <b>Critical Y</b>	(TSC and OSC not operational) If suspected abnormal radiological conditions exist, dispatch of Operations personnel will be at the discretion of the OSM/OSS.
<b>Standard:</b>	Determines that the OSM/OSS has the authority to dispatch operators. (Consider this step completed if the operator is dispatched.)
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	Abnormal radiological conditions exist per handout Attachment A and per an SEP 305 Caution.

JPM 2.4.38-02, Dispatch an operator into the plant when the TSC/OSC are not activated., Rev. 3

<b>Performance Step:</b> <b>Critical N</b>	Operators should be briefed on associated precautions and pertinent operational information utilizing ATTACHMENT 2, "In-Plant Briefing Form",
<b>Standard:</b>	As part of the briefing, instruct the operator he will be performing SEP 305 "ECCS Suction Strainer Blockage".
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	A brief of how to perform SEP 305 is <b>NOT</b> required but that the task to be performed is SEP 305 should be part of the briefing.

<b>Performance Step:</b> <b>Critical N</b>	Emergency Coordinator informed during his Control Room briefing utilizing Form CR-04, 'Control Room to TSC Command and Control Transfer Checklist'.
<b>Standard:</b>	Logs or notes that the operator is being sent to perform SEP 305 on Form CR-04.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	It is not critical to log these on Form CR-04 but it needs to be identified some way to provide the information to the oncoming EC.

**Performance Step:** Operators should be briefed on associated precautions and pertinent operational information utilizing Attachment 2, "In-Plant Operator Briefing Form", to include:  
**Critical Y**

- (1) Expected radiological conditions
- (2) Stay times
- (3) Access routes
- (4) Associated precautions
- (5) Increased exposure limits
- (6) Estimates of total exposure

**Standard:** Expected radiological conditions

- e.g.: High Rads in upper elevations of RB
- e.g.: Rad levels may change when backflow has been initiated<sup>3</sup>
- 
- 
- 
- 
- 

Stay times

- e.g.: Sets a time limit for this operation
- e.g.: Exit if/when ED alarms
- 
- 
- 
- 

Access routes

- e.g.: Enter the RB through Access Control
- e.g.: "Don't go out the back door"
- e.g.: Return/exit through Access Control
- 
- 
- 
- 

Associated precautions

- e.g.: Don't go to upper elevations of RB
- e.g.: Take a Dose Rate instrument
- e.g.: Monitor ED
- 
- 
- 
- 

(Continued on next page) •

•



JPM 2.4.38-02, Dispatch an operator into the plant when the TSC/OSC are not activated., Rev. 3

(Continued from previous page)

Increased exposure limits

- e.g.: Use an Emergency ED (with higher limits)
- e.g.: Sets an exposure limit

- 
- 
- 
- 

Estimates of total exposure

- e.g.: Determine exposure based on the estimated time required for the job and dose rates in the area.
- An area dose rate of 20 mR/hr would give 1mr per 5 minutes and would be consistent with the expected exposure

- 
- 
- 
- 
- 

Performance:

SATISFACTORY \_\_\_\_\_ UNSATISFACTORY \_\_\_\_\_

Comments:

CUE: If asked about area dose rates inform the candidate that the HP has determined that general area rad levels in the area are 20 mR/hr.

Performance Step:

Critical: N

Personnel dispatched should don protective clothing, dosimetry, respiratory equipment as necessary, and obtain a high range survey instrument.

Standard:

Determine dosimeter and high range survey instruments must be used.

Performance:

SATISFACTORY \_\_\_\_\_ UNSATISFACTORY \_\_\_\_\_

Comments:

OSS may direct the operator to stop at access to get the appropriate equipment or assign an HP to assist in determining the required protective equipment. Sending or assigning the HP to assist satisfies the satisfactory performance of this step.

<b>Performance Step:</b>	Health Physics Technician informed of the operator actions and instruct him to
<b>Critical: N</b>	provide assistance as necessary.
<b>Standard:</b>	HP informed of the operator actions and to provide assistance.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	CUE: Role play as the HP and inform the OSM/OSS that you are standing by at access ready to support the operator.  If HP is brought to the Control Room for the briefing to support the task then this step should be marked as satisfactory.

<b>Performance Step:</b>	Personnel closely monitor in-plant and effluent radiation levels
<b>Critical: N</b>	(trends/changes).
<b>Standard:</b>	May verify that someone is monitoring in-plant and effluent radiation levels. (Given in Initiating Cue)
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	If asked someone is still tracking plant radiation readings.

<b>Performance Step:</b>	All personnel dispatched should exit through Access Control.
<b>Critical: N</b>	
<b>Standard:</b>	Direct the operator to enter and exit the plant through access control.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step:</b>	Dispatch the operator into the plant.
<b>Critical:</b>	N
<b>Standard:</b>	Operator dispatched into the plant.
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____

**Terminating Cues:**

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

## TURNOVER SHEET

### INITIAL CONDITIONS:

- You are on weekend duty as the Shift Manager.
- An Alert emergency FA-1 has been declared due to a Loss of Coolant accident.
- The Evacuation alarm has been sounded and a Plant Assembly has been initiated.
- RPV level is being maintained at approximately 20 inches with both Core Spray pumps, aligned to the CSTs, and the A Loop of RHR in the LPCI mode.
- There is no indication of fuel damage at this time, but radiation levels are rising in the Reactor Building. Refuel Floor ARM readings have doubled and some readings on the Reactor Bldg. 3rd floor have risen by a factor of 10. At present, there are no EOP-3 entry conditions. Operators are continuing to monitor in-plant and effluent radiation levels. **See Attachment A of this JPM.**
- There are indications of RHR suction strainer blockage on the B Loop of RHR. Operators are performing "ECCS Suction Strainer Blockage" SEP 305 Attachment 1. The Radwaste operator confirmed that V-19-9 was closed. Operators have completed to Step 7(b) and are prepared to back flush around the D RHR pump as soon as an operator can be dispatched.
- The TSC and OSC are not yet operational.
- I will role-play the operator being dispatched.

### INITIATING CUES (IF APPLICABLE):

- Dispatch an operator to back flush around the D RHR pump in this plant condition.

**This task is NOT time critical.**

**Inform the evaluator when you have completed the task.**

**ATTACHMENT 1**

**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all references identified, current, accurate, and available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

*[Signature]* 9/14/02  
Validation Personnel /Date

\_\_\_\_\_  
Validation Personnel/Date

\_\_\_\_\_  
Validation Personnel /Date

\_\_\_\_\_  
Validation Personnel/Date

\_\_\_\_\_  
Validation Personnel /Date

\_\_\_\_\_  
Validation Personnel/Date

### DOSE PROJECTION & ARM DATA SHEET

MONITOR #	MONITOR LOCATION	UNITS	ALARM LEVEL	MAX NORM	MAX SAFE	TIME :00	TIME :15	TIME :30	TIME :45
RT-9180	RB 747' WASTE COLL.	mR/hr	250.0			1	1		
RT-9166	RB 716' SW, RW PUMP ROOM	mR/hr	50.0			3	3		
* RT-9178	RB 855' SPENT FUEL STORAGE AREA	mR/hr	19.0	100	1000	3	6		
* RT-9163	REFUEL FLOOR NORTH	mR/hr	10.0	10	100	1.5	3		
* RT-9176	RB 757' TIP	mR/hr	100.0	60	600	5	6		
* RT-9170	CRD REPAIR ROOM	mR/hr	22.0	15	150	3	4		
* RT-9167	RB 757' RR ACCESS	mR/hr	12.0	10	100	1.5	2		
RT-9162	CONTROL ROOM	mR/hr	3.0			1	1		
* RT-9173	RB 786' RESIN HANDLING	mR/hr	80.0	100	1000	50	60		
* RT-9177	RB 786' CU PH. SEPARATOR	mR/hr	100.0	20	200	10	15		
* RT-9155	RB 812' JUNGLE ROOM, C/U DEMIN AREA	mR/hr	2500.0	60	600	25	25		
* RT-9156	RB 786' RWCU PUMP ROOM	mR/hr	1000.0	1000	10000	22	30		
* RT-9157	RB 786' RWCU HEAT EXCH.	mR/hr	2000.0	1000	10000	30	37		
* RT-9171	RB 812' VENTILATION EQUIP.	mR/hr	2.2	60	600	2	4		
* RT-9153	Rx B 855 NEW FUEL STORAGE AREA	mR/hr	10.0	10	100	2	7		
* RT-9168	RB 757' CRD NORTH	mR/hr	10.0	10	100	3	4		
RT-9175	RB 833' COND. PH. SEPARATOR TANK	mR/hr	150.0			3	25		
* RT-9169	RB 757' CRD SOUTH	mR/hr	10.0	10	100	1	2		
* RT-9164	REFUEL FLOOR SOUTH	mR/hr	20.0	10	100	1	2		
RT-9159	TB 734' FEED PUMP AREA	mR/hr	2.3			.3	.3		
RT-9158	TB 734' COND. PUMP AREA	mR/hr	5.0			.5	.5		
RT-9160	TB 734' LUBE OIL AREA	mR/hr	10.0			.5	.5		
RT-9174	TB 734' SUMP AREA	mR/hr	2.5			.4	.4		
RT-9172	HOT LAB	mR/hr	2.5			.2	.4		
RT-9179	TB 780' TURBINE FRONT STANDARD	mR/hr	25.0			10	10		
RT-9161	MACHINE SHOP	mR/hr	5.0			.06	.07		
RT-9151	RW CONTROL ROOM	mR/hr	2.7			.3	1.0		
RT-9152	RW 786' RW, SAMPLE TANK CORRIDOR	mR/hr	20.0			.6	2		
RT-9154	RW 757' RW, DRUMMING AREA	mR/hr	15.0			.5	.6		
RT-9165	ACCESS CONTROL	mR/hr	2.5			.03	.03		

CR-03  
REV.0 01/16/98

## ATTACHMENT A

**SEP 305  
ECCS SUCTION STRAINER BLOCKAGE**

**ATTACHMENT 1  
BACKFLUSHING "B" RHR STRAINER**

**CAUTION**

The instructions provided below should only be performed when directed by the OSS. Operators should take precautions and coordinate Reactor Building entry with Health Physics when possible due to the potential for high radiological conditions in the plant.

- (1) Ensure that "A" RHR Loop is pressurized by either of the following: 3
- (a) RHR Pumps 1P-229A/C per OI-149. 3
- (b) EOP Alternate Injection Systems: 3

<u>System</u>	<u>Procedure</u>
RHR SW	AIP 401
ESW	AIP 402
GSW/WW	AIP 403
Fire Water	AIP 404
Cond SW	AIP 405

- (2) Secure RHR Pumps 1P-229B and 1P-229D. 3
- (3) At Panel 1C03, verify that the following valves are closed: 3

<u>Valve</u>	<u>Description</u>
MO-1903	OUTBD DRYWELL SPRAY
MO-1904	OUTBD LPCI INJECT
MO-1932	OUTBD TORUS COOLING/SPRAY
MO-1920	D PUMP SHUTDOWN CLG SUCTION
MO-1912	B PUMP SHUTDOWN CLG SUCTION

**SEP 305  
ECCS SUCTION STRAINER BLOCKAGE**

**ATTACHMENT 1**

**BACKFLUSHING "B" RHR STRAINER**

(4) At Panel 1C03, verify that the following valves are open:

3

<u>Valve</u>	<u>Description</u>
MO-1940	B HEAT EXCH BYPASS
MO-1989	TORUS SUCTION

**NOTE**

V-19-9, RHR DRAIN HEADER TO RW SURGE TANK ISOLATION, is normally closed. The position of V-19-9 may be verified by either of the following methods:

- Locally verify position, V-19-9 is located at Bay 14 in the Torus Room.
- After the flowpath to the suction strainers is established, the Radwaste operator can be contacted to determine if the valve is open by observing Radwaste Surge Tank levels in lieu of physically checking valve position.

(5) Verify V-19-9, RHR DRAIN HEADER TO RW SURGE TANK ISOLATION, closed.

3

(6) At Panel 1C03, verify open MO-2010, RHR CROSSTIE, to pressurize the "B" RHR Loop.

3

**NOTE**

The backflush flowpath can be established around either or both RHR Pumps, 1P-229B or 1P-229D. A backflush flowpath around RHR Pump 1P-229D is preferred because the manual isolation valves are more accessible.



**SEP 305  
ECCS SUCTION STRAINER BLOCKAGE**

**ATTACHMENT 1  
BACKFLUSHING "B" RHR STRAINER**

**CAUTION**  
Secure backflushing if torus level increases above 16 feet.

- (7) **To backflush around RHR Pump 1P-229D**, proceed as follows:       B      
  - (a) At Panel 1C03, open MO-1921, D PUMP TORUS SUCTION.       B
  - (b) At Panel 1C03, close MO-1913, B PUMP TORUS SUCTION, if backflush around RHR Pump 1P-229B will not be performed.       B
  - (c) In the NW Corner Room, open V-19-7, 1P-229D SUCTION HEADER DRAIN TO RADWASTE ISOL. \_\_\_\_\_
  - (d) In the NW Corner Room, throttle open V-19-12, 1P-229D DISCHARGE HDR TO RW SURGE TANK ISOLATION, to start the backflush. \_\_\_\_\_
  
- (8) **To backflush around RHR Pump 1P-229B**, proceed as follows: \_\_\_\_\_
  - (a) At Panel 1C03, open MO-1913, B PUMP TORUS SUCTION. \_\_\_\_\_
  - (b) At Panel 1C03, close MO-1921, D PUMP TORUS SUCTION, if backflush around RHR Pump 1P-229D will not be performed. \_\_\_\_\_
  - (c) In the NW Corner Room, open V-19-10, 1P-229B SUCTION HDR TO RW SURGE TANK ISOLATION. \_\_\_\_\_
  - (d) In the NW Corner Room, throttle open V-19-13, 1P-229B DISCHARGE HDR TO RW SURGE TANK ISOLATION, to start the backflush. \_\_\_\_\_

**SEP 305**  
**ECCS SUCTION STRAINER BLOCKAGE**

<b>ATTACHMENT 1</b> <b>BACKFLUSHING "B" RHR STRAINER</b>
---

- (9) Backflush "B" RHR suction strainer for one-two minutes, then close the respective isolations:
  - (a) If backflushing via RHR Pump 1P-229D, close V-19-7 and V-19-12. \_\_\_\_\_
  - (b) If backflushing via RHR Pump 1P-229B, close V-19-10 and V-19-13. \_\_\_\_\_
  
- (10) Coordinate with the OSS to either:
  - (a) Repeat the backflush per Steps (1) through (9). \_\_\_\_\_
  - (b) Restore the RHR System to the mode of operation specified by the OSS per OI-149. \_\_\_\_\_

## TURNOVER SHEET

### INITIAL CONDITIONS:

- You are on weekend duty as the Shift Manager.
- An Alert emergency FA-1 has been declared due to a Loss of Coolant accident.
- The Evacuation alarm has been sounded and a Plant Assembly has been initiated.
- RPV level is being maintained at approximately 20 inches with both Core Spray pumps, aligned to the CSTs, and the A Loop of RHR in the LPCI mode.
- There is no indication of fuel damage at this time, but radiation levels are rising in the Reactor Building. Refuel Floor ARM readings have doubled and some readings on the Reactor Bldg. 3rd floor have risen by a factor of 10. At present, there are no EOP-3 entry conditions. Operators are continuing to monitor in-plant and effluent radiation levels. **See Attachment A of this JPM.**
- There are indications of RHR suction strainer blockage on the B Loop of RHR. Operators are performing "ECCS Suction Strainer Blockage" SEP 305 Attachment 1. The Radwaste operator confirmed that V-19-9 was closed. Operators have completed up to Step 7(c) and are prepared to back flush around the D RHR pump as soon as an operator can be dispatched.
- The TSC and OSC are not yet operational.
- I will role-play the operator being dispatched.

### INITIATING CUES (IF APPLICABLE):

- Dispatch an operator to back flush around the D RHR pump in this plant condition.

**This task is NOT time critical.**

**Inform the evaluator when you have completed the task.**



JOB PERFORMANCE MEASURE (JPM)

SITE: DAEC

TASK TITLE: PERFORM AN APRM GAIN ADJUST

JPM NUMBER: 2.1.7-02xx REV. 0

RELATED PRA INFORMATION:

TASK NUMBERS: 97.11

*Alia RO*

K/A NUMBERS: 2.1.7 (3.7/4.4)  
2.1.20 (4.3/4.2)  
2.1.30 (3.9/3.4)  
2.1.31 (4.2/3.9)

APPLICABLE METHOD OF TESTING:

Discussion:  Simulate/walkthrough:  Perform:

EVALUATION LOCATION: In-Plant:  Control Room:   
Simulator:  Other:

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: RO/SRO

Developed by:	<i>AA</i>	<u>9/16/02</u>
	Instructor	Date
Validated by:	<i>[Signature]</i>	<u>9/16/02</u>
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	<i>Dean Curtland</i>	<u>9/17/02</u>
	Training Supervisor-Operations	Date

JPM 2.1.7-xx, Perform An APRM Gain Adjust, Rev. 0

JPM Number: 2.1.7-02

JPM Title: PERFORM AN APRM GAIN ADJUST

Examinee: \_\_\_\_\_

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

Job Title: \_\_\_\_\_

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

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

Finish Time \_\_\_\_\_

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).</b>

EVALUATOR'S SIGNATURE: \_\_\_\_\_

*NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.*

**JPM BRIEFING/TURNOVER**

*Add required site specific JPM briefing material here:*

*i.e., This section is read once for the entire package of JPMs. It is not required to review this section for every JPM being performed in the package. The initial conditions and initiating cue(s)/tasks to be performed should be read and then provided to the examinee.*

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

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

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- The plant is operating at power.
- You are the on-shift RO.
- "F" APRM gain is not within limits.

**INITIATING CUES (IF APPLICABLE):**

- The Shift Supervisor directs you to perform an APRM Gain Adjustment for APRM "F" (Foxtrot) per OI 878.4.

**JPM PERFORMANCE INFORMATION**

**Required Materials:** 1. OI 878.4 "Average Power Range Monitoring System"  
2. Small Screwdriver.

**General References:** OI 878.4 Rev 27

**Task Standards:** 1. Bypass APRM "F".  
2. Adjust "F" APRMs to within + or - 2%.  
3. Restore APRM to normal bypass conditions.

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

**NOTE:** When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

**OI 878.4 Section 8.0**

<b>Performance Step:</b>	Determine desired APRM setting from computer point C133 or reactor heat balance calculation.
<b>Critical:</b> N	
<b>Standard:</b>	Core power recorded from Computer Point C133 or reactor heat balance.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	<b>Cue:</b> If asked which power to use (computer point C133 or the reactor heat balance) tell them to use <b>computer point C133</b> .

JPM 2.1.7-xx, Perform An APRM Gain Adjust, Rev. 0

<b>Performance Step:</b> <b>Critical: N</b>	If APRM adjustment is required, bypass the appropriate APRM per Section 6.1 of this procedure.
<b>Standard:</b>	Go to Section 6.1 to bypass the APRM.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

OI 878.4 Section 6.1

<b>Performance Step:</b> <b>Critical: N</b>	Verify the two remaining APRM channels in the RPS trip system are operable and not BYPASSED, otherwise comply with Tech Specs for inoperable RPS instrumentation.
<b>Standard:</b>	Verifies remaining channels operable.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	Cue: if asked the remaining channels are operable.  Cue: If permission to bypass "F" APRM is requested, give the candidate permission to bypass "F" (Foxtrot) APRM.

<b>Performance Step:</b> <b>Critical: Y</b>	Place the APRM BYPASS switch C51B-S3 (C51B-S6) on Panel 1C05 in the A, C, or E (B, D, or F) position for the channel to be bypassed.
<b>Standard:</b>	Operator bypasses "F" APRM by taking C51B-S6 to "F".
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	



JPM 2.1.7-xx, Perform An APRM Gain Adjust, Rev. 0

<b>Performance Step:</b>	Observe that the bypass lights for the bypassed channel on Panel 1C37 and Panel 1C05 are both ON.
<b>Critical: N</b>	
<b>Standard:</b>	Operator confirms the bypass light for "F" APRM on 1C37 and Panel 1C05 are both ON.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

OI 878.4 Section 8.0

<b>Performance Step:</b>	At 1C37, adjust APRM AUX card (Z31) R16 as necessary to correspond to the desired APRM setting.
<b>Critical: Y</b>	
<b>Standard:</b>	At 1C37, adjust APRM AUX card (Z31) R16 as necessary to correspond to the desired APRM setting.  <b>Adjust "F" APRMs to within + or - 2% of computer point C133 or from the reactor heat balance.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step:</b>	Confirm appropriate APRM computer point (B000 through B005) agrees with AS LEFT values on 1C37. If not, notify Reactor Engineering and the System Engineer.
<b>Critical: N</b>	
<b>Standard:</b>	Operator confirms the "F" APRM computer point B005 agrees with AS LEFT values on 1C37.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

JPM 2.1.7-xx, Perform An APRM Gain Adjust, Rev. 0

<b>Performance Step:</b>	Remove appropriate APRM from bypass per Section 6.2 if necessary.
<b>Critical:</b>	N
<b>Standard:</b>	Go to Section 6.2 to un-bypass the "F" APRM.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	Cue: If requested give permission to un-bypass "F" (Foxtrot) APRM.  Cue: If asked what APRMs to bypass tell the operator to return the APRMs conditions he found them.

OI 878.4 Section 6.2

<b>Performance Step:</b>	Before returning a bypassed APRM to service, verify the following for that APRM:
<b>Critical:</b>	N
<b>Standard:</b>	The APRM channel Mode Selector Switch on Panel 1C37 is in OPERATE.  Operator verifies the "F" APRM channel Mode Selector Switch on Panel 1C37 is in OPERATE.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step:</b>	The APRM upscale, inoperative, and if greater than 5% reactor power, downscale trips on Panel 1C37 are reset.
<b>Critical:</b>	N
<b>Standard:</b>	Operator confirms "F" APRM downscale trips on Panel 1C37 are reset.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

JPM 2.1.7-xx, Perform An APRM Gain Adjust, Rev. 0

<b>Performance Step:</b> <b>Critical: N</b>	The IRM/APRM recorders on Panel 1C05 indicate approximately the same average power for the bypassed APRM as they do for the other APRM channels in operation.
<b>Standard:</b>	Operator confirms "F" APRM recorder reads about the same as the other APRMs.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step:</b> <b>Critical: N</b>	Place the APRM BYPASS switch C51B-S3 or C51B-S6 on Panel 1C05 in the neutral (unbypassed) position.
<b>Standard:</b>	Operator places C51B-S6 on Panel 1C05 in the neutral (unbypassed) position.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step:</b> <b>Critical: N</b>	Observe that the bypass light on Panel 1C05 is OFF.
<b>Standard:</b>	Operator verifies "F" APRM bypass light on Panel 1C05 is OFF.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step:</b> <b>Critical: N</b>	If desired, BYPASS a different APRM channel per section 6.1.
<b>Standard:</b>	Go to section 6.1
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

**OI 878.4 Section 6.1**

<b>Performance Step:</b> <b>Critical: N</b>	Verify the two remaining APRM channels in the RPS trip system are operable and not BYPASSED, otherwise comply with Tech Specs for inoperable RPS instrumentation.
<b>Standard:</b>	Verifies remaining channels operable.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	Cue: if asked the remaining channels are operable.  Cue: If ask which APRM to Bypass have the operator return it to the APRM bypassed at the start of the JPM.

<b>Performance Step:</b> <b>Critical: Y</b>	Place the APRM BYPASS switch (C51B-S6) on Panel 1C05 in the A, C, or E (B, D, or F) position for the channel to be bypassed.
<b>Standard:</b>	Operator bypasses the APRM "B" or "D" depending on the original setup.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	<b>Note:</b> One APRM channel per RPS trip system is normally bypassed to prevent a full scram due to a single shared LPRM failure. During normal operation the preferred APRM channel bypass combinations are A & D or C & B.

<b>Performance Step:</b> <b>Critical: N</b>	Observe that the bypass lights for the bypassed channel on Panel 1C37 and Panel 1C05 are both ON.
<b>Standard:</b>	Operator confirms the bypass light for "B" OR "D" APRM on 1C37 and Panel 1C05 are both ON. This will depend on which APRM is bypassed on the "A" side.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

**Terminating Cues:** Terminate the JPM when the candidate has Bypassed the "B" or "D" APRM

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

SIMULATOR SET UP:

1. Reset to any power IC > 25 %.
2. When the plant is stable, ensure the APRMs are set as follows:
  - "F" APRM +4 % of core thermal power.
  - "A-E" APRMs set to approximately  $\pm 0.5\%$  of core thermal power.
  - Verify APRM channel bypassed is either A & D or C & B.

SIMULATOR MALFUNCTIONS:

None

SIMULATOR OVERRIDES:

None

SIMULATOR REMOTE FUNCTIONS:

None

## TURNOVER SHEET

### INITIAL CONDITIONS:

- The plant is operating at power.
- You are the on-shift RO.
- "F" APRM gain is not within limits.

### INITIATING CUES (IF APPLICABLE):

The Shift Supervisor directs you to perform an APRM Gain Adjustment for APRM "F" (Foxtrot) per OI 878.4.

**ATTACHMENT 1**

**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all references identified, current, accurate, and available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 9/16/02  
Validation Personnel /Date

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Validation Personnel/Date



JOB PERFORMANCE MEASURE (JPM)

SITE: DAEC

TASK TITLE: C71A-K3C Logic Print Exercise.

JPM NUMBER: 2.1.24-xx REV. 0

A. Z

RELATED PRA INFORMATION:

TASK NUMBERS: 50102 PR-07 Learning Objective and Enabling Objective 16.

K/A NUMBERS: Generic 2.1.24

APPLICABLE METHOD OF TESTING:

Discussion:  Simulate/walkthrough:  Perform:

EVALUATION LOCATION: In-Plant:  Control Room:

Simulator:  Other:

Time for Completion: 30 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: RO/SRO

Additional signatures may be added as needed.

Developed by		9/15/02
	Instructor	Date
Validated by		9/15/02
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
Approved by		9/17/02
	Training Supervisor	Date



JPM Number: 2.1.24-xx

JPM Title: C71A-K3C Logic Print Exercise.

Examinee: \_\_\_\_\_

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

Job Title: \_\_\_\_\_

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

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

Finish Time \_\_\_\_\_

PERFORMANCE RESULTS:

SAT:

UNSAT:

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).


EVALUATOR'S SIGNATURE: \_\_\_\_\_

*NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.*

**JPM BRIEFING/TURNOVER**

*Add required site specific JPM briefing material here:*

*i.e., This section is read once for the entire package of JPMs. It is not required to review this section for every JPM being performed in the package. The initial conditions and initiating cue(s)/tasks to be performed should be read and then provided to the examinee.*

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

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

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- The plant is at power.
- During a panel walk down Relay C71A-K3C "RPS TRIP CHANNEL A2 C LINE MSIV 90% OPEN" was found deenergized.
- There are no other indications that this relay is deenergized.
- The STA evaluated logic print APED C71 and reports the following:
  - There is a Fuse, F3C, in line with C71A-K3C and it could possibly be open and we also should have received a ½ Scram, an annunciator, and computer point alarm if this fuse is open.

**INITIATING CUES:**

- The OSM directs you to independently evaluate the logic print for this relay to determine if the STA is correct.

### JPM PERFORMANCE INFORMATION

**Required Materials:** APED-C71-004 sheets 4, 6, 8, 14, and 15

**General References:** APED-C71-004 sheets 4, 6, 8, 14, and 15

- Task Standards:**
1. Determine Fuse F3C could possibly be the fuse and that the STA is correct
  2. Determine there should not be a ½ scram and that the STA is NOT correct
  3. Determine there should not be an annunciator and that the STA is NOT correct
  4. Determine there should not be a computer point alarm and that the STA is NOT correct

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

**NOTE:** When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b>	Determine there is a fuse in the logic to C71A-K3C and that it is a possible reason for this condition.
<b>Critical: Y</b>	
<b>Standard:</b>	Fuse F3C is identified as the possible fuse.
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	

<b>Performance Step:</b>	Determine using the logic prints that a ½ scram should not occur if this fuse is open.
<b>Critical: Y</b>	
<b>Standard:</b>	Determines that a ½ scram would not occur and the STA is incorrect.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step:</b>	Determine using the logic prints that an annunciator should not occur if this fuse is open.
<b>Critical: N</b>	
<b>Standard:</b>	Determines that an annunciator would not occur and the STA is incorrect.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step:</b>	Determine using the logic prints that a computer point alarm should not occur if this fuse is open.
<b>Critical: N</b>	
<b>Standard:</b>	Determines that a computer point alarm would not occur and the STA is incorrect.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

**Terminating Cues:** When candidate has determined the STA is correct about the fuse but incorrect about the rest.

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

# TURNOVER SHEET

## INITIAL CONDITIONS:

- The plant is at power.
- During a panel walk down Relay C71A-K3C "RPS TRIP CHANNEL A2 C LINE MSIV 90% OPEN" was found deenergized.
- There are no other indications that this relay is deenergized.
- The STA evaluated logic print APED C71 and reports the following:
  - There is a Fuse, F3C, in line with C71A-K3C and it could possibly be open and we also should have received a ½ Scram, an annunciator, and computer point alarm if this fuse is open.

## INITIATING CUES:

- The OSM directs you to independently evaluate the logic print for this relay to determine if the STA is correct.

## ATTACHMENT 1

### JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

 9/14/02  
 Validation Personnel /Date

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Validation Personnel/Date



JOB PERFORMANCE MEASURE (JPM)

**SITE:** DAEC  
**TASK TITLE:** Respond to a RBM Rod Block annunciator and safety limit violation.

**JPM NUMBER:** 2.2.22-xx **REV.** 0

**RELATED PRA INFORMATION:**

**TASK NUMBERS:** Task 82.00  
 Objective 71.00.00.08

A.1.6  
 RO

**K/A NUMBERS:** Generic 2.2.22 3.4/4.1  
 215002 A2.05 3.2/3.3

**APPLICABLE METHOD OF TESTING:**

Discussion:  Simulate/walkthrough:  Perform:

**EVALUATION LOCATION:** In-Plant:  Control Room:   
 Simulator:  Other:

Time for Completion: 10 Minutes Time Critical: NO

Alternate Path / Faulted: NO

**TASK APPLICABILITY:** RO/SRO

Additional signatures may be added as needed.

<b>Developed by:</b>		9/15/02
	Instructor	Date
<b>Validated by:</b>		9/15/02
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
<b>Approved by:</b>		9/17/02
	Training Supervisor	Date







**JPM BRIEFING/TURNOVER**

*Add required site specific JPM briefing material here:*

*i.e., This section is read once for the entire package of JPMs. It is not required to review this section for every JPM being performed in the package. The initial conditions and initiating cue(s)/tasks to be performed should be read and then provided to the examinee.*

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

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

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- You are performing a control rod sequence exchange and have just withdrawn the selected control rod.
- You have just completed withdrawing rod 10-19 IAW the approved rod sequence exchange sheet.
- The annunciators for "Rod Out Block" and "RBM Upscale or Inop" have just occurred.

**INITIATING CUES (IF APPLICABLE):**

- As the OSS I direct you to perform ARP 1C05B B-6 "RBM UPSCALE OR INOP".

**JPM PERFORMANCE INFORMATION**

**Required Materials:** ARP 1C05B A-6 Rev 9  
ARP 1C05B B-6 Rev 10  
Plant process computer  
3D Case  
T.S.  
Copy of a sequence exchange including the selected rod.

**General References:** ARP 1C05B A-6 Rev 9  
ARP 1C05B B-6 Rev 10  
T.S.

**Task Standards:** Run 3D Case  
Identify T.S. Safety Limit violation.

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

**NOTE:** When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b>	At Panel 1C-05, monitor RBM displays to determine the affected RBM channel.
<b>Critical:</b>	N
<b>Standard:</b>	Determine the Rod Block is due to both RBMs upscale.
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	

2.2.22-xx, Respond to a RBM Rod Block annunciator and safety limit violation. Rev 0

<b>Performance Step: 3.1</b>	If UPSCALE light is ON and has not been anticipated as part of a sequence exchange:
<b>Critical: N</b>	
	a) Verify with the Reactor Engineer that the proper rod withdrawal sequence is being used.
<b>Standard:</b>	Operator will request if this is the proper rod withdrawal sequence
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	Cue If asked if this is an expected alarm; This is not an expected alarm.  Cue: If asked if this is the correct rod withdrawal sequence reply that <b>the Reactor Engineer has verified this to be the correct rod withdrawal sequence</b>

<b>Performance Step: 3.2 b)</b>	Verify the proper rod is selected.
<b>Critical: N</b>	
<b>Standard:</b>	The operator verifies the correct control rod is selected.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	Cue: If asked if this is the correct rod the answer is YES this is the correct control Rod.

<b>Performance Step: 3.2 c)</b>	Run an OFFICIAL 3D CASE and follow with one of the below options:
<b>Critical: Y</b>	
<b>Standard:</b>	An OFFICIAL 3D CASE is ran by typing RUN3D on the PPC.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step: 3.2 c)1</b>	If a thermal limit has value in excess of 1.000, inform the OSS and comply with the Technical Specification requirements for Power Distribution Limits
<b>Critical: N</b>	
<b>Standard:</b>	The operator will review the 3D Case and determine that thermal limits are <1.000.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	

<b>Performance Step: 3.2 c)2</b>	If no thermal limits are in excess of 1.000, but are in excess of administrative limits, inform the OSS.
<b>Critical: Y</b>	
<b>Standard:</b>	Determine that thermal limits are in excess of the administrative limits and inform the OSS. Stating that the administrative thermal limit is 0.99 is <b>not</b> required.
<b>Performance:</b>	<b>SATISFACTORY</b> _____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	Note: The candidate may use the daily STP to determine the administrative limits. He may also know from memory that 0.992 is above the limit.

**Terminating Cues:** T.S. Thermal Limit has been identified as being exceeded.

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

SIMULATOR SET UP:

- Reset to **any** >30% power IC.
- Select control rod 10-19.

SIMULATOR EVENT TRIGGERS::

None

SIMULATOR MALFUNCTIONS:

Malfunction	Discription	Severity Value	Ramp	Delay
nm09a	RBMCHANNE FAILS-CHNL A	100	0	0
nm09b	RBMCHANNE FAILS-CHNL B	100	0	0

**On the VAX use SAIC Menu #8 then #3 and set MFLPD 0.992**

SIMULATOR OVERRIDES:

None

SIMULATOR REMOTE FUNCTIONS:

None

## TURNOVER SHEET

### INITIAL CONDITIONS:

- You are performing a control rod sequence exchange and have just withdrawn the selected control rod.
- You have just completed withdrawing rod 10-19 IAW the approved rod sequence exchange sheet.
- The annunciators for "Rod Out Block" and "RBM Upscale or Inop" have just occurred.

### INITIATING CUES (IF APPLICABLE):

- As the OSS I direct you to perform ARP 1C05B B-6 "RBM UPSCALE OR INOP".



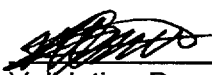
**ATTACHMENT 1**

**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

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REVIEW STATEMENTS	YES	NO	N/A
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 9/15/02  
 Validation Personnel /Date

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