

INITIAL SUBMITTAL OF THE ADMINISTRATIVE JPMS
FOR THE PERRY INITIAL EXAMINATION - MARCH 2002

Facility: Perry **Task No:** 299-933-03-01
Task Title: Complete a Reactor Operator Relief/Turnover Checklist as the On-Coming Reactor Operator **JPM No:** 2002 NRC A1a RO
K/A Reference: 2.1.3
Examinee: **NRC Examiner:**
Facility Evaluator: N/A **Date:**

Method of testing**Simulated
Performance****Actual
Performance****In Simulator**

Classroom

Simulator

Plant

READ TO THE EXAMINEE

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

Initial Conditions: The plant is operating at 100% power. You are the on-coming Day Shift Reactor Operator. You have completed Section A of the Reactor Operator Relief/Turnover Checklist with the exception of the Control Room Horseshoe Panel Walkdown.

Task Standard: Reactor Operator Relief/Turnover Checklist is correctly performed.

Required Materials: PAP-0126, Attachment 3 (attached marked up copy)
Simulator IC Setup Sheet (attached)

General References: PAP-0126, Shift Staffing and Shift Relief, Rev. 2, PIC 2

Initiating Cue: Complete the Reactor Operator Relief/Turnover Checklist by performing the Control Room Horseshoe Panel Walkdown in accordance with PAP-0126.

Time Critical Task: NO

Validation Time: 45 minutes

(Denote Critical Steps with an asterisk)

The sequence of steps is unimportant.

- | | |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| * Performance Step: P601 | Walkdown Control Room Horseshoe observing items such as active annunciators, status lights, train alignments, control board tags, and various parameters. |
| Standard: | Candidate identifies RCIC is out of service and is <u>not</u> listed on the RO Relief/Turnover Checklist. |
| Comment: | Cue: The off-going Unit Supervisor will investigate. Continue panel walkdown. |
| | |
| * Performance Step: P680 | Walkdown Control Room Horseshoe observing items such as active annunciators, status lights, train alignments, control board tags, and various parameters. |
| Standard: | Candidate identifies Pressure Regulator B is the in-service Pressure Regulator. Determines in-service Pressure Regulator was incorrectly annotated on the Reactor Operator Relief/Turnover Checklist. |
| Comment: | Cue: Off-going Unit Supervisor will discuss with the off-going Reactor Operator and contact I&C if necessary. |

Terminating Cue:

The evaluation for this JPM is complete when the candidate completes the Control Room Horseshoe Panel walkdown for panels P680 and P601.

Job Performance Measure No. 2002 NRC A1a RO

Examinee's Name:

Examiner's Name:

Date Performed:

Facility Evaluator: N/A

Number of Attempts:

Time to complete:

Question Documentation:

Question:

Response:

Result: SAT OR UNSAT

Examiner's Signature and Date: _____

INITIAL
CONDITIONS:

The plant is operating at 100% power. You are the on-coming Day Shift Reactor Operator. You have completed Section A of the Reactor Operator Relief/Turnover Checklist with the exception of the Control Room Horseshoe Panel Walkdown.

INITIATING CUE:

Complete the Reactor Operator Relief/Turnover Checklist by performing the Control Room Horseshoe Panel Walkdown in accordance with PAP-0126.

PAP-0126

- ☒ Active LCO Status
- ☒ Active Annunciators
- ☒ Tech Spec Rounds

RO RELIEF/TURNOVER CHECKLIST

PNPP No. 8290 Rev. 4/23/01

Page 2 of 2

PAP-0126

Review/Discuss the following:

Controlling IOI's: 3 / 15.

- ☒ RPV Level/Press (Within limits based on current operating conditions)
☒ DW Press (≤ 0.5 psig) ☒ CNTMT Press (≤ 0.5 psig) ☒ SP Lvl (Within limits based on current operating conditions)
☒ DW Temp (60° - 145° F) ☒ CNTMT Temp (60° - 95° F) ☒ SP Temp (60° - 95° F)

Cooling Tower Status: ☒ Normal ☐ Bypass ☐ Central Deicing ☐ Shutdown
Blowdown in Manual: Full Open

General information

| | |
|------------------------------------------------------------|---------------------------------------------------------|
| RFBP C Motor Thrust Bearing Monitor at 180 / Shift at 185° | |
| RFBP B Stator Temp High / Contact RSE at 245° S/D 250° | |
| 1P45-F068A packing leak (RHR A pump room sump) | Contact SE if any Turbine Differential Expansion Alarms |
| M35 Plenum drains aligned to Rad waste due to tritium | |
| N23 C and H can not backwash due to valve problems | |
| 3.6.1.3 (3.6.5.3) Valve(s) ♦ | Compensating Action ♦ |
| | |
| | |
| | |

Section B:

- ☒ Control Room PER's and Tech Spec Rounds

SCC Information / SCC Phone Numbers

- ☎ Schedule 8-836-9867
- ☎ Conversion Economics: 8-820-1450 or 1-330-252-1450
- ☎ Generation for power changes 8-820-1471 or 1-330-252-1471
- ☎ For Voltage/Var. 1-330-336-9803 or 8-836-9868 or 1-330-336-9867
- ☎ About Quincy Sub 8-836-9860
- ☎ Dispatcher / Oscillograph / N71 Lights- 8-836-9864 (or 1-800-288-9176) FAX: (330)336-9869
- ☎ Switching Orders 8-836-9863
- ☎ Bulk Power: 1-216-642-7400
- ☎ North Region Dispatch (1-800-589-9111) (Pole problems)

Off-going RO: _____

On-coming RO: _____

ANNUNCIATOR TRACKING LOG

| Panel | Sec | Loc | Description of Annunciator from Panel | Reason for Activation of Annunciator | Ref Doc | Activation Date | Expected De- Activation Date | Owner |
|---------------|---------|------|---------------------------------------------|----------------------------------------------------------------------------------------|-----------|--------------------|---------------------------------------|-------|
| 1H13- P680 | 1A | A-02 | RWCU F/D OUT COND HI/FAILED | Monitor Failed WO 02-357 Status Work Complete | RT 75905 | 2/11/02 | 4/30/02 | FIN |
| 1H13- P680 | 7A | E-11 | INST AIR COMP TRBL | Local Panel Power Turned Off Due to A/C in Secured Status For Demister Change | WO 02-148 | 2/28/02 | 5/30/02 | FIN |
| 1H13- P601 | 16 A | D-04 | HPCS OUT OF SERVICE | Pump Breaker Maintenance | WO 02-419 | 3/04/02 | 3/18/02 | EMM |

| | | | |
|-----------------------|---------------------------------------|-----------------|------------------------|
| Facility: | <u>Perry</u> | Task No: | <u>202-517-02-01</u> |
| Task Title: | <u>Determine Jet Pump Operability</u> | JPM No: | <u>2002 NRC A1b RO</u> |
| K/A Reference: | <u>2.1.7</u> | | |

| | | | |
|----------------------------|------------|----------------------|--|
| Examinee: | | NRC Examiner: | |
| Facility Evaluator: | <u>N/A</u> | Date: | |

Method of testing

| | | | |
|------------------------------|------------------|---------------------------|---------------------|
| Simulated Performance | <u>N/A</u> | Actual Performance | <u>In Simulator</u> |
| Classroom | Simulator | Plant | |

READ TO THE EXAMINEE

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

Initial Conditions: The plant is operating at 73% power. SVI-B33-T1160, Jet Pump Operability Surveillance, was in progress when the Reactor Operator performing the surveillance had to leave the site unexpectedly 5 minutes ago. Sections 5.1.1 and 5.1.2 of SVI-B33-T1160 were completed prior to his departure. ICS is not available to support performance of SVI-B33-T1160.

Task Standard: Jet Pump Operability Surveillance is correctly performed.

Required Materials: SVI-B33-T1160, Rev 4, PIC 2 (attached marked up copy)
PDB-A0009
Simulator IC Setup Sheet (attached)
Calculator

General References: SVI-B33-T1160, Rev 4, PIC 2

Initiating Cue: The Unit Supervisor directs you, as the Reactor Operator, to complete the Jet Pump Operability Surveillance by performing Section 5.1.3.1, Jet Pump Differential Pressure and Flow, and evaluate the Technical Specification acceptance criteria of SVI-B33-T1160.

Time Critical Task: NO

Validation Time: 30 minutes

(Denote Critical Steps with an asterisk)

* **Performance Step:** Jet Pump Differential Pressure and Flow.
5.1.3.1.a

NOTE 1: It is not necessary to satisfy both Section 5.1.3.1 and Section 5.1.3.2. The preferred method is contained in Section 5.1.3.1. The unnecessary section may be marked N/A.

NOTE 2: For single loop operation, the spaces in this section may be marked N/A for the idle loop.

Determine each normalized jet pump diffuser to lower plenum differential pressure for each operating recirculation loop, and indicate the method used.

- If using ERIS, attach a copy of the screen that is appropriate for the recirculation loop configuration indicated in Step 4.3 (e.g., 156 for dual loop operation); otherwise, complete Attachment 3, Normalized Jet Pump dP's Data Sheet.

Standard: Completes Attachment 3, Normalized Jet Pump dP's Data Sheet.

Comment: **Cue: Perform the preferred section of the procedure.**

The following steps are contained in SVI-B33-T1160 Attachment 3, Normalized Jet Pump dPs Data Sheet.

* **Performance Step: 1** Record each Jet Pump diffuser to lower plenum dP (%).

Standard: Jet Pump diffuser to lower plenum dP's accurately recorded.

Comment: See attached marked-up copy of Attachment 3 for expected approximate values.

- * **Performance Step: 2** Sum all Jet Pump dPs for each loop, and record as Loop Total dP.

Standard: Jet Pump dP's accurately summed.

Comment: See attached marked-up copy of Attachment 3 for expected approximate values.

- * **Performance Step: 3** Divide each Loop Total dP by 10 and record as Loop Average dP.

Standard: Jet Pump Loop Average dP's accurately calculated.

Comment: See attached marked-up copy of Attachment 3 for expected approximate values.

- * **Performance Step: 4** Divide each Jet Pump dP by its Loop Average dP, and record as Normalized Jet Pump dP.

Standard: Normalized Jet Pump dP's accurately calculated.

Comment: See attached marked-up copy of Attachment 3 for expected approximate normalized values.

Performance Step: 5 All calculations independently verified.

Standard: Independent verification of all calculations is requested.

Comment: **Cue: Independent verification of all calculations completed satisfactorily.**

- * **Performance Step: 6** Confirm that each normalized jet pump diffuser to lower plenum differential pressure as determined in Step 4 of this attachment is within the corresponding Normalized dP Range of <PDB-A0009> for the Recirculation Loop configuration indicated in Step 4.3
- Standard:** Determines that each normalized jet pump diffuser to lower plenum differential pressure as determined in Step 4 of this attachment is NOT within the corresponding Normalized dP Range.
- Comment:** See attached marked-up copy of Attachment 3 for expected approximate values of each normalized jet pump diffuser to lower plenum differential pressure.

The following steps are contained in SVI-B33-T1160 Section 5.1.3, Jet Pump Differential Pressure, and in Section 5.3, Acceptance Criteria.

- * **Performance Step: 5.1.3.1.b** Indicate whether the relationship determined in Step 5.1.3.1.a is within the appropriate “established pattern.”
- If using ERIS, observe NORMAL indication for the JET PUMP DPS; otherwise, refer to Step 6 on Attachment 3.
- Standard:** Determines that relationship determined in Step 5.1.3.1.a is NOT within the appropriate “established pattern” by referring to step 6 of Attachment 3.
- Comment:** ERIS is unavailable.
- Performance Step: 5.1.3.2** Jet Pump Differential Flow.
- Standard:** Not applicable.
- Comment:** Cue: If asked, it is not necessary to perform Section 5.1.3.2.

*** Performance Step:** Acceptance Criteria
5.3.1

NOTE 1: Satisfactory completion of this surveillance shall be based only on Technical Specification items (marked with a \$ sign).

The jet pumps, in each operating recirculation loop, have been demonstrated OPERABLE by one of the following two methods:

- a. At least two of the following three criteria have been satisfied:
 - 1) Recirculation loop drive flow versus flow control valve position differs by $\leq 10\%$ from established patterns. (YES in Step 5.1.1.2)
 - 2) Recirculation loop drive flow versus total core flow differs by $\leq 10\%$ from established patterns. (YES in Step 5.1.2.2)
 - 3) Either each jet pump diffuser to lower plenum differential pressure differs by $\leq 20\%$ from established patterns, or each jet pump flow differs by $\leq 10\%$ from established patterns. (YES in either Step 5.1.3.1.b or Step 5.1.3.2.b)
- b. While baselining the new “established patterns,” the Shift Technical Advisor (STA), or the Responsible System Engineer (RSE), or a Reactor Engineer (RE) has reviewed the surveillance results and has determined, based upon engineering judgment, that no significant abnormality exists that could indicate a jet pump failure.

Standard: Determines that two of the following three criteria of step “a” have been satisfied and acceptance criteria have been satisfied.

Determines that that jet pump diffuser to lower plenum differential pressure DOES differ by $>20\%$ from established patterns and informs the Unit Supervisor that significant abnormalities exist which could indicate a Jet Pump failure.

Comment: **Cue: We are not baselining new established patterns.**

Terminating Cue:

The evaluation for this JPM is complete when the candidate determines the Jet Pump Operability Surveillance acceptance criteria have been satisfied and informs the Unit Supervisor that significant abnormalities exist which could indicate a Jet Pump failure.

Job Performance Measure No. 2002 NRC A1b RO

Examinee's Name:

Examiner's Name:

Date Performed:

Facility Evaluator: N/A

Number of Attempts:

Time to complete:

Question Documentation:

Question:

Response:

Result: SAT OR UNSAT

Examiner's Signature and Date: _____

INITIAL
CONDITIONS:

The plant is operating at 80% power. SVI-B33-T1160, Jet Pump Operability Surveillance, was in progress when the Reactor Operator performing the surveillance had to leave the site unexpectedly. Sections 5.1.1 and 5.1.2 of SVI-B33-T1160 were completed prior to his departure.

ICS is not available to support performance of SVI-B33-T1160.

INITIATING CUE:

The Unit Supervisor directs you, as the Reactor Operator, to complete the Jet Pump Operability Surveillance by performing section 5.1.3, Jet Pump Differential Pressure and Flow, and evaluate the Technical Specification acceptance criteria of SVI-B33- T1160.

| | | | |
|--------------------|-------------------------------------------------------------|-----------------|-----------------------|
| Facility: | <u>Perry</u> | Task No: | <u>299-925-03-01</u> |
| Task Title: | <u>Determine Isolation Boundaries for Equipment Tagging</u> | JPM No: | <u>2002 NRC RO A2</u> |

K/A Reference: 2.2.13

Examinee: _____ **NRC Examiner:** _____

Facility Evaluator: N/A **Date:** _____

Method of testing

| | | |
|------------------------------|---------------------------|---------------------------------|
| Simulated Performance | Actual Performance | <u>Class / Simulator</u> |
| Classroom | Simulator | Plant |

READ TO THE EXAMINEE

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

Initial Conditions: It is 0400 on Saturday morning. Reactor Feed Booster Pump B (1N27-C001B) experienced high vibration followed by pump seal failure. The pump has been shutdown in accordance with SOI-N27, Section 6.8. In addition, 1P12-F606B is closed and tagged, under OPS Admin Control, to isolate seal water to the RFBP.

Task Standard: Isolation boundaries are correctly determined.

Required Materials: P&ID 302-0081-0000-LL
Electrical Drawing B-208-149 sheets 04, 08, and 44

General References: P&ID 302-0081-0000-LL
Electrical Drawing B-208-149 sheets 04, 08, and 44
PAP-1401, Tagging/Clearances

Initiating Cue: The Unit Supervisor directs you, as the Reactor Operator, to identify all of the components required for a Clearance that will isolate Reactor Feed Booster Pump B (N27-C0001B). Clearance paperwork is not required to be generated.

Time Critical Task: NO

Validation Time: 20 minutes

(Denote Critical Steps with an asterisk)

- Evaluator Note:**
1. The candidate may determine isolation boundaries in any order.
 2. The candidate is not required to identify P44 motor cooling water isolation valves 1P44-F624B and 1P44-F625B.
 3. The candidate is not required to identify 1N27-F670B, 1N27-F741B, or 1N27-F592B since they are vent or drain valves located within the isolation boundaries.

* **Performance Step:** Close and tag 1N27-F050B, RFBP B Discharge Valve.

Standard: Identify 1N27-F050B to be closed and tagged.

Comment: Feedwater P&ID 302-0081-0000-LL.

* **Performance Step:** Close and tag 1N27-F015B, RFBP B Suction Isolation Valve.

Standard: Identify 1N27-F015B to be closed and tagged.

Comment: Feedwater P&ID 302-0081-0000-LL.

* **Performance Step:** Close and tag 1N27-F503B, RFBP B Casing Warmup Isolation Valve.

Standard: Identify 1N27-F503B to be closed and tagged.

Comment: Feedwater P&ID 302-0081-0000-LL

- * **Performance Step:** Tag control switch and open and tag breaker disconnect for 1N27-F050B, RFBP B Discharge Valve.
- Standard:** Identify Control Switch (S66) to be tagged and breaker disconnect (FIB06 Comp W) to be opened and tagged.
- Comment:** Electrical Drawing B-208-149 sh. 08
-
- * **Performance Step:** Tag control switch, and open and tag breaker disconnect for 1N27-F015B, RFBP B Suction Isolation Valve.
- Standard:** Identify Control Switch (S72) to be tagged and breaker disconnect (FIB06 Comp U) to be opened and tagged.
- Comment:** Electrical Drawing B-208-149 sh 44
-
- * **Performance Step:** Tag RFBP B control switch and rack out and tag RFBP B breaker H1208.
- Standard:** Identify Control Switch (S3) to be tagged and breaker H1208 to be racked out and tagged.
- Comment:** Electrical Drawing B-208-149 sh 04

Terminating Cue:

The evaluation for this JPM is complete when the candidate has identified the required isolation boundaries

Job Performance Measure No. 2002 NRC RO A2

Examinee's Name:

Examiner's Name:

Date Performed:

Facility Evaluator: N/A

Number of Attempts:

Time to complete:

Question Documentation:

Question:

Response:

Result: SAT OR UNSAT

Examiner's Signature and Date: _____

INITIAL
CONDITIONS:

It is 0400 on Saturday morning. Reactor Feed Booster Pump B (1N27-C001B) experienced high vibration followed by pump seal failure. The pump has been shutdown in accordance with SOI-N27, Section 6.8. In addition, 1P12-F606B is closed and tagged, under OPS Admin Control, to isolate seal water to the RFBP.

INITIATING CUE:

The Unit Supervisor directs you, as the Reactor Operator, to identify all of the components required for a Clearance that will isolate Reactor Feed Booster Pump B (N27-C0001B). Clearance paperwork is not required to be generated.

Facility: Perry **Task No:** 299-848-01-01

Task Title: Verify RWP Task Requirements and Perform Action for Personnel Contamination **JPM No:** 2002 NRC A3 RO/SRO

K/A Reference: 2.3.1

Examinee: **NRC Examiner:**

Facility Evaluator: N/A **Date:**

Method of testing

| Simulated Performance | <u>In-Plant</u> | Actual Performance |
|------------------------------|-----------------|---------------------------|
| Classroom | Simulator | Plant |

READ TO THE EXAMINEE

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

Initial Conditions: PEI-B13, RPV Control (Non-ATWS) has been entered. As an In-Plant Operator, you will be directed to assist the Control Room with the performance of PEI-SPI 4.2, RHR Loop B Containment Flood starting at Step 2.5.

Task Standard: The appropriate RWP for the assigned task is correctly identified and the correct actions are identified when an individual is determined to be contaminated.

Required Materials: Radiation Work Permits and Survey Maps (attached marked up copy)
Personnel Contamination Monitor (PCM)

General References: PNPP Radiation Worker Training Information Manual

Initiating Cue: Using the attached Radiation Work Permits (RWPs) and Survey Maps, determine the appropriate Radiation Work Permit (RWP) for the performance of PEI-SPI 4.2 in the plant.

Time Critical Task: NO

Validation Time: 12 minutes

(Denote Critical Steps with an asterisk)

This JPM is conducted in association with JPM P2. This JPM can begin prior to entering the Radiologically Controlled Area (RCA) or it can be conducted inside the RCA.

After giving the Initiating Cue for this JPM, provide the candidate with the copies of the four Radiation Work Permits and Survey Maps.

- * **Performance Step: 1** Using the Radiation Work Permits and the Survey Maps that are provided, determine the appropriate Radiation Work Permit for the task.

Standard: Selects RWP # 010300, which allows entry into High Radiation Areas, Radiation Areas, and Contaminated areas only.

Candidate should recognize that the other three RWPs are not appropriate for the assigned task.

Comment: **Cue: After the candidate selects an RWP, acknowledge the candidate's choice and then direct the candidate to follow normal radiological practices and procedures when entering the RCA.**

After the completion of Step 1, suspend performance of this task and proceed to JPM P2.

When that portion of JPM P2 is completed inside the RCA and the candidate exits the RCA (begins to frisk or use the PCM), then continue with Step 2 of this JPM.

- * **Performance Step: 2** Frisks or uses PCM to determine contamination is not present.

Standard: Repeats frisk or re-enters PCM when contamination is detected.

Comment: **Cue: PCM/Frisker alarms indicating your face is contaminated.**

* **Performance Step:** Repeats frisk or re-enters PCM to verify presence of contamination.

Standard:

- Informs Health Physics that face is contaminated and waits for further guidance.
- Ensures not to spread contamination while contacting HP.

Comment:

Cue: PCM/Frisker alarms indicating your face is contaminated.

Cue: When the candidate has specified the correct actions to perform, then inform the candidate that he has been successfully de-contaminated.

Note: Cue the candidate to continue with the remainder of JPM P2 at this time.

Terminating Cue:

The evaluation for this JPM is complete when the candidate contacts HP for guidance on personnel contamination,

Job Performance Measure No. 2002 NRC A3
RO/SRO

Examinee's Name:

Examiner's Name:

Date Performed:

Facility Evaluator: N/A

Number of Attempts:

Time to complete:

Question Documentation:

Question:

Response:

Result: SAT OR UNSAT

Examiner's Signature and Date: _____

INITIAL
CONDITIONS:

PEI-B13, RPV Control (Non-ATWS) has been entered. As an In-Plant Operator, you will be directed to assist the Control Room with the performance of PEI-SPI 4.2, RHR Loop B Containment Flood, starting at Step 2.5.

INITIATING CUE:

Using the attached Radiation Work Permits (RWPs) and Survey Maps, determine the appropriate Radiation Work Permit (RWP) for the performance of PEI-SPI 4.2 in the plant.

| | | | |
|--------------------------------|------------------------------------------------------------------------------|----------------------|-----------------------|
| Facility: | <u>Perry</u> | Task No: | <u>N/A</u> |
| Task Title: | <u>Perform Site Accountability Actions from Outside Control Room</u> | JPM No: | <u>2002 NRC A4 RO</u> |
| K/A Reference: | <u>294001 A1.16</u> | | |
| Examinee: | | NRC Examiner: | |
| Facility Evaluator: | <u>N/A</u> | Date: | |

Method of testing

| | | | |
|----------------------------------|--------------|-------------------------------|------------|
| Simulated Performance | <u>Plant</u> | Actual Performance | <u>N/A</u> |
| Classroom | Simulator | Plant | |

READ TO THE EXAMINEE

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

Initial Conditions: You are the Operations Foreman observing a Non-Licensed Operator performing the Nuclear Island-RRA Rounds in the plant.

You have just heard the Shift Manager announce over the PA that a Site Area Emergency has been declared and Site Accountability is required.

Task Standard: Candidate must go to either the OSC accountability card reader located in the TSC hallway or the Control Room accountability card readers (Unit 1 or 2 located just inside the Control Room doors) and simulate inserting his keycard into the card reader. This action is required to be complete within 30 minutes of announcing site accountability.

Required Materials: None

General References: EPI-B5, Rev 6, PIC 6

Initiating Cue: As the Operations Foreman currently located in the plant, demonstrate the actions that you are required to perform in order to complete Site Accountability.

Time Critical Task: Yes 30 minutes

Validation Time: 5 minutes

(Denote Critical Steps with an asterisk)

- * **Performance Step: 1** Locates either the OSC accountability card reader in the TSC hallway (Service Building 605') or the Unit 1 or Unit 2 Control Room card reader just inside the Control Room doors.
- Standard:** Candidate locates either the OSC accountability card reader in the TSC hallway (Service Building 605') or the Unit 1 or Unit 2 Control Room accountability card reader just inside the Control Room doors.
- Comment:** **Note: Alternate method to satisfy Critical Steps 1 and 2 is to contact the Control Room and have the Shift Manager submit his name and badge number to Security for accountability.**
- * **Performance Step: 2** Insert and then withdraw keycard into one of the designated accountability card readers.
- Standard:** Inserts (simulates) and then withdraws keycard into one of the designated accountability card readers.
- Comment:** **Cue: The red light has blinked on the accountability card reader.**
- Note: The time critical portion of the JPM is completed at the completion of Step 2. Step 2 must be completed within 30 minutes.**
- Note: Performance Step 3 is in a question format and requires and Evaluator Cue.**

Evaluator Cue: State the maximum time that you are allowed to complete your Site Accountability actions.

* **Performance Step: 3** State the maximum time that you are allowed to complete your Site Accountability actions.

Standard: States that the time required to complete Site Accountability actions is 30 minutes from the time the Site Accountability is initiated.

Comment:

Terminating Cue:

The evaluation for this JPM is complete when the candidate completes actions to demonstrate Site Accountability and states the time required to complete Site Accountability.

Job Performance Measure No. 2002 NRC A4 RO

Examinee's Name:

Examiner's Name:

Date Performed:

Facility Evaluator: N/A

Number of Attempts:

Time to complete:

Question Documentation:

Question:

Response:

Result: SAT OR UNSAT

Examiner's Signature and Date: _____

INITIAL
CONDITIONS:

You are the Operations Foreman observing a Non-Licensed Operator performing the Nuclear Island-RRA Rounds in the plant.

You have just heard the Shift Manager announce over the PA that a Site Area Emergency has been declared and Site Accountability is required.

INITIATING CUE: As the Operations Foreman currently located in the plant, demonstrate the actions that you are required to perform in order to complete Site Accountability.

Facility: Perry **Task No:** 299-933-03-01
Task Title: Complete a Unit Supervisor Relief/Turnover Checklist as the On-Coming Unit Supervisor **JPM No:** 2002 NRC A1a SRO

K/A Reference: 2.1.3

Examinee:

NRC Examiner:

Facility Evaluator: N/A

Date:

Method of testing

**Simulated
Performance**

**Actual
Performance**

In Simulator

Classroom

Simulator

Plant

READ TO THE EXAMINEE

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

Initial Conditions: The plant is operating at 100% power. You are the on-coming Day Shift Unit Supervisor. You have completed Section A of the Unit Supervisor Relief/Turnover Checklist with the exception of the Control Room Horseshoe Panel Walkdown.

Task Standard: Unit Supervisor Relief/Turnover Checklist is correctly performed.

Required Materials: PAP-0126, Attachment 3 (attached marked up copy)
Simulator IC Setup Sheet (attached)

General References: PAP-0126, Shift Staffing and Shift Relief, Rev. 2, PIC 2

Initiating Cue: Complete the Unit Supervisor Relief/Turnover Checklist by performing the Control Room Horseshoe Panel Walkdown in accordance with PAP-0126.

Time Critical Task: NO

Validation Time: 45 minutes

(Denote Critical Steps with an asterisk)

The sequence of steps after the first steps is unimportant.

* **Performance Step:** Walkdown Control Room Horseshoe observing items such as active
P601 annunciators, status lights, train alignments, control board tags, and various parameters.

Standard: Candidate identifies RCIC is out of service and is not listed on the Unit Supervisor Relief/Turnover Checklist.

Comment: **Cue: The off-going Unit Supervisor will investigate. Continue panel walkdown.**

* **Performance Step:** Walkdown Control Room Horseshoe observing items such as active
P680 annunciators, status lights, train alignments, control board tags, and various parameters.

Standard: Candidate identifies Pressure Regulator B is the in-service Pressure Regulator. Determines in-service Pressure Regulator was incorrectly annotated on the Unit Supervisor Relief/Turnover Checklist.

Comment: **Cue: Off-going Unit Supervisor will discuss with the off-going Shift Manager and contact I&C if necessary.**

Terminating Cue:

The evaluation for this JPM is complete when the candidate completes the Control Room Horseshoe Panel walkdown for panels P680 and P601.

Job Performance Measure No. 2002 NRC A1a SRO

Examinee's Name:

Examiner's Name:

Date Performed:

Facility Evaluator: N/A

Number of Attempts:

Time to complete:

Question Documentation:

Question:

Response:

Result: SAT OR UNSAT

Examiner's Signature and Date: _____

**INITIAL
CONDITIONS:**

The plant is operating at 100% power. You are the on-coming Day Shift Unit Supervisor. You have completed Section A of the Unit Supervisor Relief/Turnover Checklist with the exception of the Control Room Horseshoe Panel Walkdown.

INITIATING CUE: Complete the Unit Supervisor Relief/Turnover Checklist by performing the Control Room Horseshoe Panel Walkdown in accordance with PAP-0126.

Page 1 of 2

PAP-0126

[illegible]

US RELIEF/TURNOVER CHECKLIST Page 2 of 2

PNPP No. 8293 Rev. 4/23/01

PAP-0126

Equipment Under Administrative Controls:

| | | |
|--------------------------------------------------------------------|--|--|
| Stem leakoff alarm/bypass pts 24, 25 | | |
| LH-1-A and LH-1-B ABT's, keep aligned to breaker 8C-2 OAT on 8C-1. | | |
| N64-F0064B- (Dryer B loop Seal) | | |
| N64C0001A-Glyc. CW pump abn. noise | | |
| P61-F0823 | | |
| G42-F0175- F/D drain leaking | | |
| | | |
| | | |
| | | |

Tech Spec 3.6.1.3 / 3.6.5.3 inop valves

Penetration Controls

| | |
|--|--|
| | |
| | |

Review/perform the following:

- | | | |
|---------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------|
| <input checked="" type="checkbox"/> Plant Narrative Log | <input checked="" type="checkbox"/> ECCS Status Board | <input type="checkbox"/> Control Room Panel Walkdown |
| <input checked="" type="checkbox"/> Active LCO Status | <input checked="" type="checkbox"/> Daily & Standing Instructions | <input checked="" type="checkbox"/> Active Annunciators |

Section B:

Review the following:

- | | | |
|--------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------|
| <input checked="" type="checkbox"/> RO Checklist | <input checked="" type="checkbox"/> DLCO Tracking Sheets | <input checked="" type="checkbox"/> Potential LCO Status |
| <input checked="" type="checkbox"/> Surv. Tracking Schedule | <input checked="" type="checkbox"/> Condition Change Checklist | <input checked="" type="checkbox"/> Ops Admin Tag Logbook Status |
| <input checked="" type="checkbox"/> Review Control Room NOMS | | |

Additional Turnover Items/Remarks:

| | |
|--------------------------------------------------------|--|
| Monitoring Rectifiers for leakage (camera is in place) | |
| | |
| Minimum ESW flow allowed to RHR-B Hx – 6700 gpm (DI) | |
| | |
| | |
| | |
| | |

On-coming US: List the names of any US or RO who are working overtime this shift (excluding turnover time.)

Off-going US: _____

On-coming US: _____

Facility: Perry **Task No:** 344-506-04-02
Task Title: Prepare for Feedwater
Temperature Reduction
Operations **JPM No:** 2002 NRC A1b SRO
K/A Reference: 2.1.7

Examinee: **NRC Examiner:**

Facility Evaluator: N/A **Date:**

Method of testing

Simulated Performance N/A **Actual Performance** In Simulator

Classroom **Simulator** Plant

READ TO THE EXAMINEE

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

Initial Conditions: The plant is operating at 80% power. ONI-N36, Loss of Feedwater Heating, has been entered due to the loss of Feedwater Heaters 5A and 6A. All immediate actions of ONI-N36 have been completed. It will take 48 hours to affect repairs and return the feedwater heaters to service.

Task Standard: Final Feedwater Temperature Reduction Operation is correctly performed.

Required Materials: FTI-B10, Rev 5, PIC 1
PDB-A0011
Simulator IC Setup Sheet (attached)

General References: FTI-B10, Rev 5, PIC 1

Initiating Cue: The Shift Manager directs you, as the Unit Supervisor, to perform FTI-B10, Preparation for Final Feedwater Temperature Reduction Operation.

Time Critical Task: NO

Validation Time: 10 minutes

(Denote Critical Steps with an asterisk)

- * **Performance Step:** Determine Feedwater temperature relative to full power operation.
5.1.1
- a. For an unplanned event, obtain the operating feedwater temperature. For less than full power conditions, extrapolate to the equivalent full power feedwater temperature using <PDB-A0011>.
 - b. For a planned event, determine the anticipated feedwater temperature according to the feedwater heater configuration. For less than full power conditions, extrapolate to the equivalent full power feedwater temperature using <PDB-A0011>
- Standard:** Obtains the operating feedwater temperature and determines the equivalent full power feedwater temperature to be approximately 375.5 °F.
- Comment:** This is an unplanned event therefore Step “b” is not applicable.
- * **Performance Step:** Determine the Pressure Setpoint and Allowable Value corresponding to the feedwater temperature using Attachment 1.
5.1.2
- Standard:** Determines the new Pressure Setpoint is ≤ 190 and new Allowable Value is ≤ 196 .
- Comment:**

* **Performance Step:** Process Provisional Setpoint Change Requests per <PAP- 1403> to
5.1.3 change the pressure setpoints for trip units 1C71-N0652A, B, C, and D to the values determined in step 5.1.2.

Standard: Recognizes requirement to initiate Provisional Setpoint Change Requests.

Comment: **Cue: The Shift Manager will direct the Shift Engineer to process the Provisional Setpoint Change Requests.**

Note: Step 5.1.4 would not be required until Step 5.1.3 was completed.

Terminating Cue:

The evaluation for this JPM is complete when the candidate recognizes the requirement to initiate Provisional Setpoint Change Requests.

Job Performance Measure No. 2002 NRC A1b SRO

Examinee's Name:

Examiner's Name:

Date Performed:

Facility Evaluator: N/A

Number of Attempts:

Time to complete:

Question Documentation:

Question:

Response:

Result: SAT OR UNSAT

Examiner's Signature and Date: _____

INITIAL
CONDITIONS: The plant is operating at 80% power. ONI-N36, Loss of Feedwater Heating, has been entered due to loss of Feedwater Heaters 5A and 6A. All immediate actions of ONI-N36 have been completed. It will take 48 hours to affect repairs and return the feedwater heaters to service.

INITIATING CUE: The Shift Manager directs you, as the Unit Supervisor, to perform FTI-B10, Preparation for Final Feedwater Temperature Reduction Operation.

| | | | |
|--------------------|----------------------------------------|-----------------|------------------------|
| Facility: | <u>Perry</u> | Task No: | <u>342-650-03-02</u> |
| Task Title: | <u>Perform On-Line Risk Assessment</u> | JPM No: | <u>2002 NRC A2 SRO</u> |

K/A Reference:

| | |
|------------------|----------------------|
| Examinee: | NRC Examiner: |
|------------------|----------------------|

| | |
|----------------------------|--------------|
| Facility Evaluator: | Date: |
|----------------------------|--------------|

N/A

Method of testing

| | | |
|------------------------------|---------------------------|---------------------------------|
| Simulated Performance | Actual Performance | <u>Class / Simulator</u> |
|------------------------------|---------------------------|---------------------------------|

| | | |
|-----------|-----------|-------|
| Classroom | Simulator | Plant |
|-----------|-----------|-------|

READ TO THE EXAMINEE

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

Initial Conditions: The plant is in MODE 1. The HPCS System is to be placed in secured status for preventative maintenance during the next hour. ESW Pump A just tripped on motor overcurrent while operating to support a liquid radwaste discharge. All other plant equipment is operable. The PSA Engineer is not available.

Task Standard: Risk Category is correctly identified for the hypothetical condition of the HPCS System and ESW A being inoperable at the same time. HPCS should not be removed from service for preventative maintenance.

Required Materials: Safety Monitor Desk Guide
A Computer station loaded with the Safety Monitor Program

General References: PAP 1924, Rev. 2, PIC 2
Safety Monitor Desk Guide

Initiating Cue: Using the Safety Monitor, determine the Risk Category for the hypothetical case of the HPCS System and ESW Pump A being inoperable at the same time, including your recommendation for removing the HPCS System from service.

Time Critical Task: NO

Validation Time: 15 minutes

***** IMPORTANT INFORMATION *******Admin JPM Setup Instructions**

1. Open the Safety Monitor 3.0a Program.
2. Select 'Real Mode'.
3. On the 'Real Time Operation' screen, verify the following parameters are set:
 - a. Click on the 'View / Change Plant Configuration' tab.
 - 1) Click on the 'Environ / Testing' tab.
 - a) Verify the 'Environment / Test factor' indicates 'SWITCHYARD'.
 - 2) Click on the 'Operating Mode' tab.
 - a) Verify the 'Mode' indicates '1'.
 - 3) Click on the 'Alignment' tab.
 - a) Using 'All Systems', verify that the equipment lineup reflects a 100% normal full power lineup.
4. On the 'Real Time Operation' screen, confirm the CDF value is 3.55E-6 and the color is green.

The Safety Monitor initial setup is now complete.

Admin JPM Completion Instructions

After the completion of the JPM by a license candidate, the following steps must be performed to clear the previous CDF calculation and then setup the Safety Monitor for the next license candidate.

1. Select 'Real Mode'.
2. Select 'Hypothetical Mode'.
3. Select 'Real Mode Configuration'.
4. Select 'Real Mode'.
5. Confirm the CDF value is 3.55E-6 and the color is green.

The Safety Monitor setup is now completed for the next license candidate.

(Denote Critical Steps with an asterisk)

- * **Performance Step: 1** Place the Safety Monitor in the Hypothetical Mode and determine the Risk Category for the hypothetical case of the HPCS System and ESW Pump A being inoperable at the same time.

Standard: Determines the plant would be in Risk Category 2 in accordance with the definition of Risk Category and recommends that the HPCS System not be removed from service for preventative maintenance due the increased risk.

This is the general sequence of steps for the Safety Monitor Program:

1. Select 'Hypothetical Mode'.
2. Select either 'Real mode configuration' or 'Current hypothetical configuration'.

Note: Either configuration contains the same identical conditions.

3. Select 'View / Change Plant Configuration'.
4. Select 'Component Status'.
5. Select 'E22 High Pressure Core Spray System'.
6. Select '1E22C0001 Pump, High Pressure Core Spray'.

Note: Inoperability Information – the type of inoperability is not critical.

7. Select 'P45 Emergency Service Water System'.
8. Select '1P45C0001A Emergency Service Water Pump A'.
9. Select 'Calculate'.

Note: The hypothetical value is 3.42E-04, the color is orange, and the Risk Category is 2.

Comment: Note: The Instructor must follow the 'Admin JPM Completion Instructions' on the previous page in order to setup the Safety Monitor for another performance of this JPM.

Terminating Cue:

When the candidate determines the new Risk Category using the Safety Monitor, the evaluation for this JPM is complete.

Job Performance Measure No. 2002 NRC A2 SRO

Examinee's Name:

Examiner's Name:

Date Performed:

Facility Evaluator: N/A

Number of Attempts:

Time to complete:

Question Documentation:

Question:

Response:

Result: SAT OR UNSAT

Examiner's Signature and Date: _____

INITIAL
CONDITIONS:

The plant is in MODE 1. The HPCS System is to be placed in secured status for preventative maintenance during the next hour. ESW Pump A just tripped on motor overcurrent while operating to support a liquid radwaste discharge. All other plant equipment is operable. The PSA Engineer is not available.

INITIATING CUE:

Using the Safety Monitor, determine the Risk Category for the hypothetical case of the HPCS System and ESW Pump A being inoperable at the same time, including your recommendation for removing the HPCS System from service.

Facility: Perry **Task No:** 344-531-05-02

Task Title: Perform Event Classification and Protective Action Recommendations **JPM No:** 2002 NRC A4 SRO

K/A Reference: 2.4.29

Examinee: **NRC Examiner:**

Facility Evaluator: N/A **Date:**

Method of testing**Simulated
Performance****Actual
Performance****Simulator**

Classroom

Simulator

Plant

READ TO THE EXAMINEE

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

Initial Conditions: You are the on-duty Shift Manager. An event has occurred requiring Emergency Classification.

The following conditions exist:

- The reactor is shutdown following a LOCA in the Drywell.
- RPV Emergency Depressurization was performed in accordance with PEI-B13 when RPV water level decreased to -42.5 inches without injection available.
- The Severe Accident Guidelines have been entered and Primary Containment Flooding has been initiated due to RPV level remaining lower than -25 inches.

Various Plant Radiation Monitors are alarming and the following readings have been noted:

- TB/HB Vent Gas Monitor, 1D17-K856, indicates 1.2E+4 cpm and slowly rising.
- Plant Vent Gas Monitor, 1D19-N300, indicates 3.5E0 $\mu\text{Ci/cc}$ and stable.

Estimated time to complete Emergency Dose calculations is 20 minutes.

Field Survey results are expected in approximately 30 minutes.

The current wind speed is 1.1 MPH coming from 292 degrees.

Task Standard: Within 15 minutes, event is correctly classified as a General Emergency in accordance with EPI-A1, Emergency Action Levels. Within the next 15 minutes, PNPP 7794, Initial Notification Form, is correctly prepared in accordance with EPI-B1, Emergency Notification System, including the correct PAR based on wind direction.

Required Materials: EPI-A1, Rev 6, PIC 6 EPI-B1, Rev 10, PIC 5
EPI-A2, Rev 7, PIC 4 EPI-B8, Rev 8, PIC 4
Initial Notification Form (PNP 7794)

General References: EPI-A1, Rev 6, PIC 6 EPI-B1, Rev 10, PIC 5
EPI-A2, Rev 7, PIC 4 EPI-B8, Rev 8, PIC 4

Initiating Cue: As the Shift manager, classify the event in accordance with EPI-A1, Emergency Action Levels, and complete the PNPP Form No. 7794, Initial Notification, in accordance with EPI-B1, Emergency Notification System.

Time Critical Task: YES 30 minutes

Validation Time: 12 minutes

(Denote Critical Steps with an asterisk)

* **Performance Step: 1** Consults EP1-A1 in order to classify the event.

Standard: Classify as **General Emergency** within 15 minutes. EAL Category is **AG1**.

Comment: **NOTE: This step is time critical and must be completed within 15 minutes.**

- **Event classification is expected to be completed within 15 minutes in accordance with EP1-A1 such that initial notifications can be completed within the next 15 minutes.**

Note: The candidate may reference a controlled copy of EP1-A1 in the TEC Reference Library, TEC Simulator, or the Plant Control Room.

- * **Performance Step: 2** Obtains Form PNPP No. 7794, Initial Notification, and consults EPI-B1 in order to fill out the Initial Notification Form.

Standard: PNPP No. 7794, Initial Notification, is properly filled out **within 15 minutes** of classifying the event.

For a General Emergency, ensure that at a minimum the default PAR, as outlined in section 5.1.1.2 of EPI-A2, is included.

Based on wind direction, recommendation should be made to evacuate sub-areas 1, 2, 3.

- Comment:** **Note:** This step is time critical and must be completed within 15 minutes from the completion of step 1.
- See attached copy of completed Form PNPP No. 7794, Initial Notification, in order to verify proper completion of the Initial Notification Form.
 - The candidate must properly complete blocks 1 - 8 of PNPP Form No. 7794.

Note: The candidate may reference a controlled copy of EPI-A2, EPI-B1, and EPI-B8 in the TEC Reference Library, TEC Simulator, or the Plant Control Room.

Note: The candidate should identify where he can obtain PNPP Form No. 7794. When candidate identifies the need for PNPP Form No. 7794, hand the candidate a blank form

Note: The candidate is not required to complete any other E-Plan forms such as PNPP Form No. 9100, Pager Messages.

Note: The Evaluator will role-play as the Control Room Communicator by accepting the completed PNPP Form No. 7794 when the candidate is ready for the Control Room Communicator to make the initial notifications to the counties, state, and NRC.

Terminating Cue:

The evaluation for this JPM is complete when the event is classified as a General Emergency in accordance with AG1 and PNPP Form No. 7794, Initial Notification is properly filled out (including a Protective Action Recommendation).

Job Performance Measure No. 2002 NRC A4 SRO

Examinee's Name:

Examiner's Name:

Date Performed:

Facility Evaluator: N/A

Number of Attempts:

Time to complete:

Question Documentation:

Question:

Response:

Result: SAT OR UNSAT

Examiner's Signature and Date: _____

INITIAL
CONDITIONS:

You are the on-duty Shift Manager. An event has occurred requiring Emergency Classification.

The following conditions exist:

- The reactor is shutdown following a LOCA in the Drywell.
- RPV Emergency Depressurization was performed in accordance with PEI-B13 when RPV water level decreased to -42.5 inches without injection available.
- The Severe Accident Guidelines have been entered, and Primary Containment Flooding has been initiated due to RPV level remaining lower than -25 inches.

Various Plant Radiation Monitors are alarming and the following readings have been noted:

- TB/HB Vent Gas Monitor, 1D17-K856, indicate 1.2E+4 cpm and slowly rising.
- Plant Vent Gas Monitor, 1D19-N300, indicates 3.5E0 $\mu\text{Ci/cc}$ and stable.

Estimated time to complete Emergency Dose calculations is 20 minutes.

Field Survey results are expected in approximately 30 minutes.

The current wind speed is 1.1 MPH coming from 292 degrees.

INITIATING CUE:

As the Shift Manager, classify the event in accordance with EPI-A1, Emergency Action Levels, and complete the PNPP Form No. 7794, Initial Notification, in accordance with EPI-B1, Emergency Notification System.