Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **EVALUATE SYSTEM OPERATING CONDITIONS WHEN SECURITY ANALYSIS IS OUT OF SERVICE**

JPM NUMBER: **ADMIN-19** **REV.** **4**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **SS 341 ATI 00 00 026 / EVALUATE OPERATING CONDITIONS WHEN SECURITY ANALYSIS IS OOS**

K/A NUMBERS: **2.1.25 (3.9/4.2)**

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [ ] Other: [X]

Lab: [ ]

Time for Completion: **15** Minutes Time Critical: **NO**

Alternate Path: **NO**

TASK APPLICABILITY: SRO: [X] RO: [ ] NLO [ ]

Additional site-specific signatures may be added as desired.

Developed by:	**Fredrick Collins**	
	Developer	Date
Validated by:	**Justin Hasner**	
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Shawn Sarrasin**	
	Training Supervisor	Date

JPM BRIEFING/TURNOVER
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:

- Both units are at 100% power.
- The System Operator in the Transmission System Operation center has informed you that BOTH the Security Power System Analysis and the MISO RTCA programs are OOS.
- The plant is in its NORMAL at power 4.16 KV line-up.

INITIATING CUES:

- Evaluate the current system operating conditions for **BUS 25 ONLY** per C20.3 AOP 1.

JPM PERFORMANCE INFORMATION

Required Materials: Consumable copies of the following:
- C20.3
- C20.3 AOP1

General References: C20.3, ELECTRICAL POWER SYSTEM SECURITY ANALYSIS
C20.3 AOP1, EVALUATING SYSTEM OPERATING CONDITIONS WHEN SECURITY ANALYSIS IS OUT OF SERVICE

Task Standards: Examinee determines that the Bus 25 grid source (2R) setpoint is 97.2% (335.3 kV), plots the line and operating points on Figure 5, and determines that Bus 25 grid source (2R) is operating in the acceptable region.

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).

IMPORTANT: 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, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

Performance Step: **Critical** N	**C20.3 AOP1, step 2.4.1:** **Log the Security Analysis Program and the MISO RTCA Program OOS in the Operations Log.**
Standard:	**Examinee determines a log entry will be made concerning SAP and MISO RTCAP being OOS.**
Evaluator Cue:	**Inform the examinee that the Lead Reactor Operator will make the appropriate log entries.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step:	**C20.3 AOP1, step 2.4.2:**
Critical N	
	If any 345 kV transmission line is OOS, then contact Electrical Engineering for assistance in evaluating grid operating conditions.
Standard:	**Examinee determines by using ERCS ES-1 that no 345 kV lines are OOS.**
Evaluator Cue:	**If asked about current grid line up, then provide examinee with picture of ERCS ES-1 and EA25.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step:	**C20.3 AOP1, step 2.4.3:**
Critical N	
	Evaluate the 345 kV and 161 kV grid operating conditions using Section 3.0, Table 1, and Figure 1 through Figure 6. Document results on Appendix B.
Standard:	**Examinee goes to appropriate sections for Bus 25 – Section 3.0, Table 1, and Figure 5.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical Y**	**C20.3 AOP1, step 3.2.2:** **Generate the correct 161 kV and 345 kV figure by evaluating plant 4.16KV bus line-up with Table 1.**
Standard:	**Examinee evaluates grid operating conditions for Bus 25 source (2R) using Table 1 and Figure 5 as follows:** • ***(Critical)* Table 1 XFMR 2R – Case Study 2R-5 (21, 22, 23, 24, 25, 27) – 97.2%, 335.3 kV.** • ***(Critical)* Plot horizontal line from 335.3 kV and vertical line from 0 MVARs.** • ***(Non-Critical) Plot a sloped line from plotted point using sloped grid lines as a reference. (Completion of this bullet is not necessary to successfully complete this step.)***
Evaluator Cues:	• **If not already done, provide examinee with picture of ERCS ES-1.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N**	**C20.3 AOP1, step 3.2.3:** **Using ERCS ES1 display read bus voltages and adjusted MVARs directly from display.**
Standard:	**Examinee reads voltages and MVARs from ES1.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical Y**	**C20.3 AOP1, step 3.2.4:** **Plot the points on the curve and evaluate for ACCEPTABLE or UNACCEPTABLE operating region.**
Standard:	**Examinee determines that Bus 25 is operating in the ACCEPTABLE region.**
Evaluator Note:	**Bus 26 is operating in the UNACCEPTABLE region. If the examinee incorrectly believes that 8H12 is closed and 8H10 is open, then the examinee will not arrive at the correct evaluation.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **When examinee has determined that the Bus 25 grid source (2R) setpoint is 97.2% (335.3 kV), plotted the line and operating points on Figure 5, and determined that Bus 25 grid source (2R) is operating in the acceptable region, then this JPM is complete.**

Stop Time: _____

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 cover page filled in correctly?	☒	☐	
2. Has the JPM been reviewed and validated by SMEs?	☒	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☒	☐	☐
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☒	☐	
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?	☒	☐	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	☒	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☒
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	☒	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	☒	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☒	☐	
11. Have all special tools and equipment needed to perform the task been identified?	☒	☐	
12. Are all references identified, current, and accurate?	☒	☐	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☒	☐	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

ATTACHMENT 2

JPM Number: ADMIN-19

JPM Title: EVALUATE SYSTEM OPERATING CONDITIONS WHEN SECURITY ANALYSIS IS OUT OF SERVICE

Examinee & ID: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Make written comments 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.

ATTACHMENT 3

TURNOVER SHEET

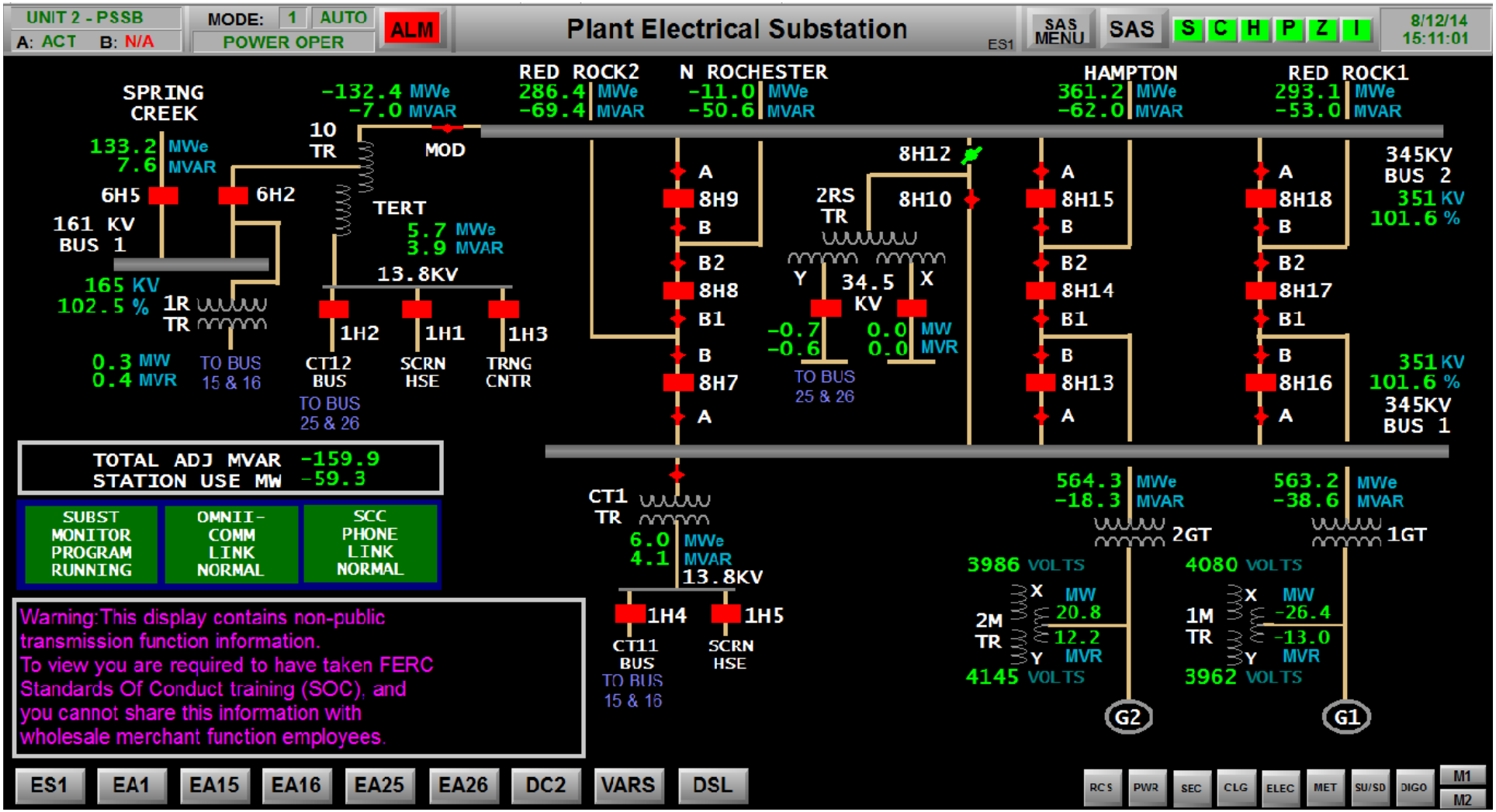
INITIAL CONDITIONS:

- Both units are at 100% power.
- The System Operator in the Transmission System Operation center has informed you that BOTH the Security Power System Analysis and the MISO RTCA programs are OOS.
- The plant is in its NORMAL at power 4.16 KV line-up.

INITIATING CUES:

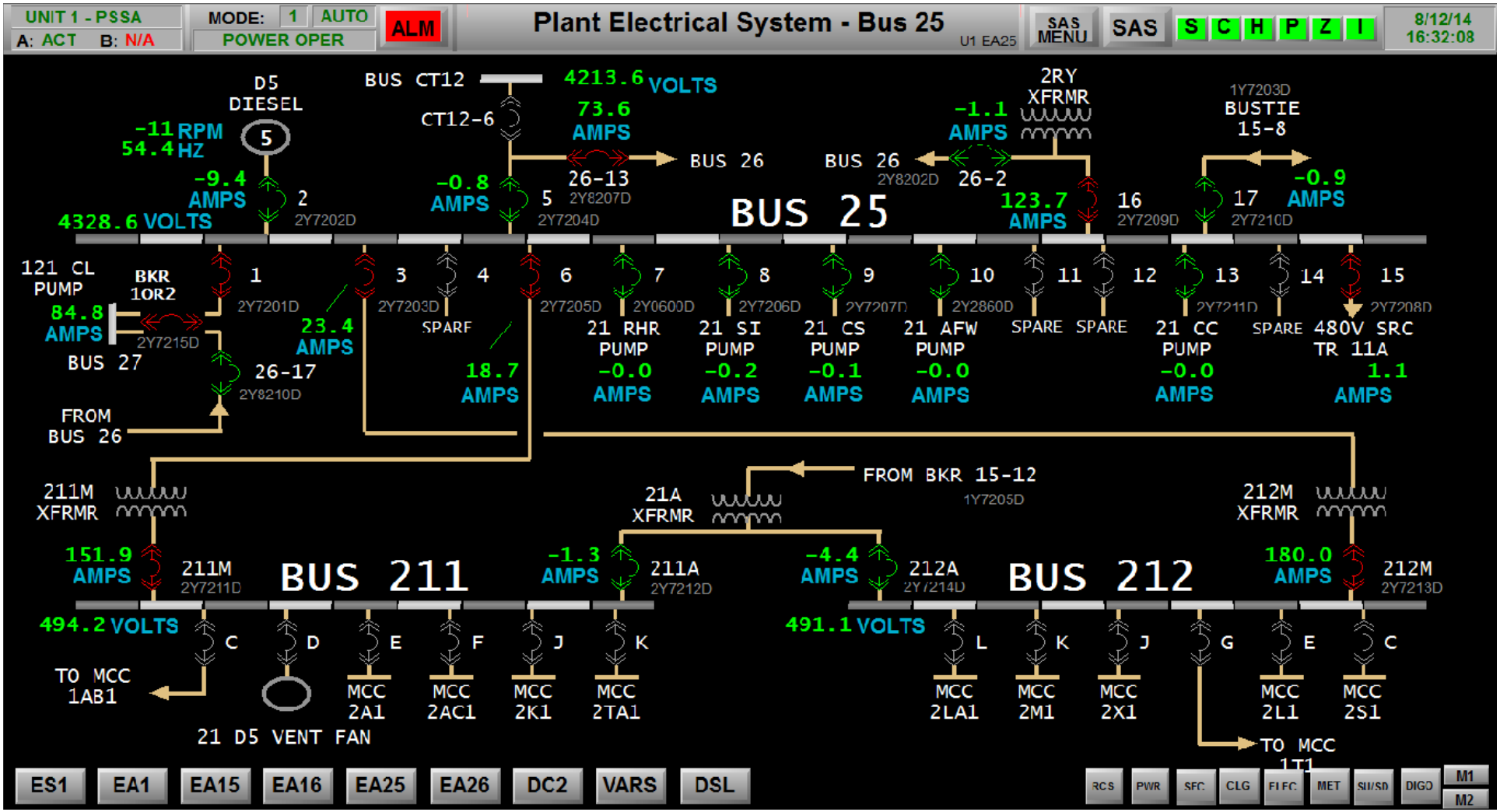
- Evaluate the current system operating conditions for **BUS 25 ONLY** per C20.3 AOP 1.

ATTACHMENT 4



Retention: Life of Plant
Retain in: Training Record
Form retained in accordance with record retention schedule identified in FP-G-RM-01.

ATTACHMENT 4 cont.



Retention: Life of Plant
Retain in: Training Record
Form retained in accordance with record retention schedule identified in FP-G-RM-01.

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **AUTHORIZATION OF WASTE GAS RELEASE**

JPM NUMBER: **ADMIN-22** **REV.** **3**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **SS 341.049.03.03 / APPROVE RADIOACTIVE GAS RELEASES**

K/A NUMBERS: **2.3.6 (3.8/4.3)**

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [ ] Other: [X]

Lab: [ ]

Time for Completion: **10** Minutes Time Critical: **NO**

Alternate Path: **NO**

TASK APPLICABILITY: SRO: [X] RO: [ ] NLO [ ]

Additional site-specific signatures may be added as desired.

Developed by:	**Fredrick Collins**	
	Developer	Date
Validated by:	**Justin Hasner**	
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Shawn Sarrasin**	
	Training Supervisor	Date

JPM BRIEFING/TURNOVER
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 the Unit 1 Shift Supervisor.
- A Waste Gas Release is planned for your shift from 128 Low Level Gas Decay Tank.

- Unit 1 and Unit 2 are at 100% power.
- Cooling Towers are in service.
- There is no precipitation occurring.

- The Gas Decay Tank Gaseous Effluent Release Permit has been completed and approved.

INITIATING CUES:

- C21.3-10.8, Releasing Radioactive Gas from 128 Low Level Gas Decay Tank, has been completed through step 7.10.
- Determine if a gaseous release can be approved per C21.3-10.8, step 7.11.

JPM PERFORMANCE INFORMATION

Required Materials:
- **Consumable copy of C21.3-10.8, Releasing Radioactive Gas from 128 Low Level Gas Decay Tank**
- **Attachment 4, Gas Decay Tank Gaseous Effluent Release Permit, with dates and times filled in.**
- **Attachment 5, ERCS Server Group OPWIND**

General References: **Gas Decay Tank Gaseous Effluent Release Permit**
C21.3-10.8, Releasing Radioactive Gas from 128 Low Level Gas Decay Tank

Task Standards: **Determine release cannot be approved due to unfavorable wind 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).

IMPORTANT: 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, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

Performance Step: **Critical N**	**C21.3-10.8, step 7.11.1:** **Verify Chemistry Manager or designee has approved the release on the Gas Decay Tank Gaseous Effluent Release Permit.**
Standard:	**Examinee verifies Chemistry Manager has approved the release on the GDTGER Permit.**
Evaluator Cue:	**Give examinee Attachment 4, Gas Decay Tank Gaseous Effluent Release Permit.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: **Critical Y**	**C21.3-10.8, step 7.11.2:**
	Check wind conditions as specified in the Limitations section are satisfied (from ERCS server group "OPWIND"): • **10-meter average wind speed _____ mph** • **10-meter average wind direction _____ °**
Standard:	**Examinee locates wind speed and direction from OPWIND ERCS Group Attachment 5.**
Evaluator Cue:	**Give examinee Attachment 5, ERCS Server Group OPWIND.** **10-meter avg wind speed = 6 mph** **10-meter avg wind direction= 22°**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical Y**	**C21.3-10.8, step 7.11.3:**
	Release Approval: _____ **Shift Supervisor** **Date: _____ Time: _____**
Standard:	**Examinee determines the release cannot be approved due to unfavorable wind conditions.**
Evaluator Note:	**This critical step is considered met if the examinee notes unfavorable wind conditions during review of step 7.11.3 or Precaution & Limitation 3.2.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **When examinee has determined the release cannot be approved due to unfavorable wind conditions, then this JPM is complete.**

Stop Time: _____

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 cover page filled in correctly?	☒	☐	
2. Has the JPM been reviewed and validated by SMEs?	☒	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☒	☐	☐
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8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	☒	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	☒	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☒	☐	
11. Have all special tools and equipment needed to perform the task been identified?	☒	☐	
12. Are all references identified, current, and accurate?	☒	☐	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☒	☐	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

ADMIN-22, AUTHORIZATION OF WASTE GAS RELEASE, REV. 3

ATTACHMENT 2

JPM Number: _____

JPM Title: _____

Examinee & ID: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Make written comments 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.

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 Shift Supervisor.
- A Waste Gas Release is planned for your shift from 128 Low Level Gas Decay Tank.

- Unit 1 and Unit 2 are at 100% power.
- Cooling Towers are in service.
- There is no precipitation occurring.

- The Gas Decay Tank Gaseous Effluent Release Permit has been completed and approved.

INITIATING CUES:

- C21.3-10.8, Releasing Radioactive Gas from 128 Low Level Gas Decay Tank, has been completed through step 7.10.
- Determine if a gaseous release can be approved per C21.3-10.8, step 7.11.

ATTACHMENT 4

Prairie Island Nuclear Generating Station Permit Number: PIGB2018-136P

Gas Decay Tank Gaseous Effluent Release Permit

Pre-Release Conditions

Release System:	Gas Decay Tank
Release Point:	128 Low Level GDT
Release Point Comment:	*** Checklist C21.3-10.8 ***
Waste Volume (cft):	0.00
Maximum Waste Flow (cfm):	1,000.00
Minimum Dilution Flow (cfm):	40,600.00
Release Fraction:	1.00

Radiation Monitor Data **(Calculations include Background)**

Monitor Description:	2R-30	2R-37
Calculated High Setpoint:	4.44E+04	3.30E+04
Current High Setpoint:	5.00E+02	6.00E+02
Background:	3.50E+01	3.50E+01
Expected Response:	4.40E+02	4.00E+02
Monitor Units:	cpm	cpm

Special Conditions:

test

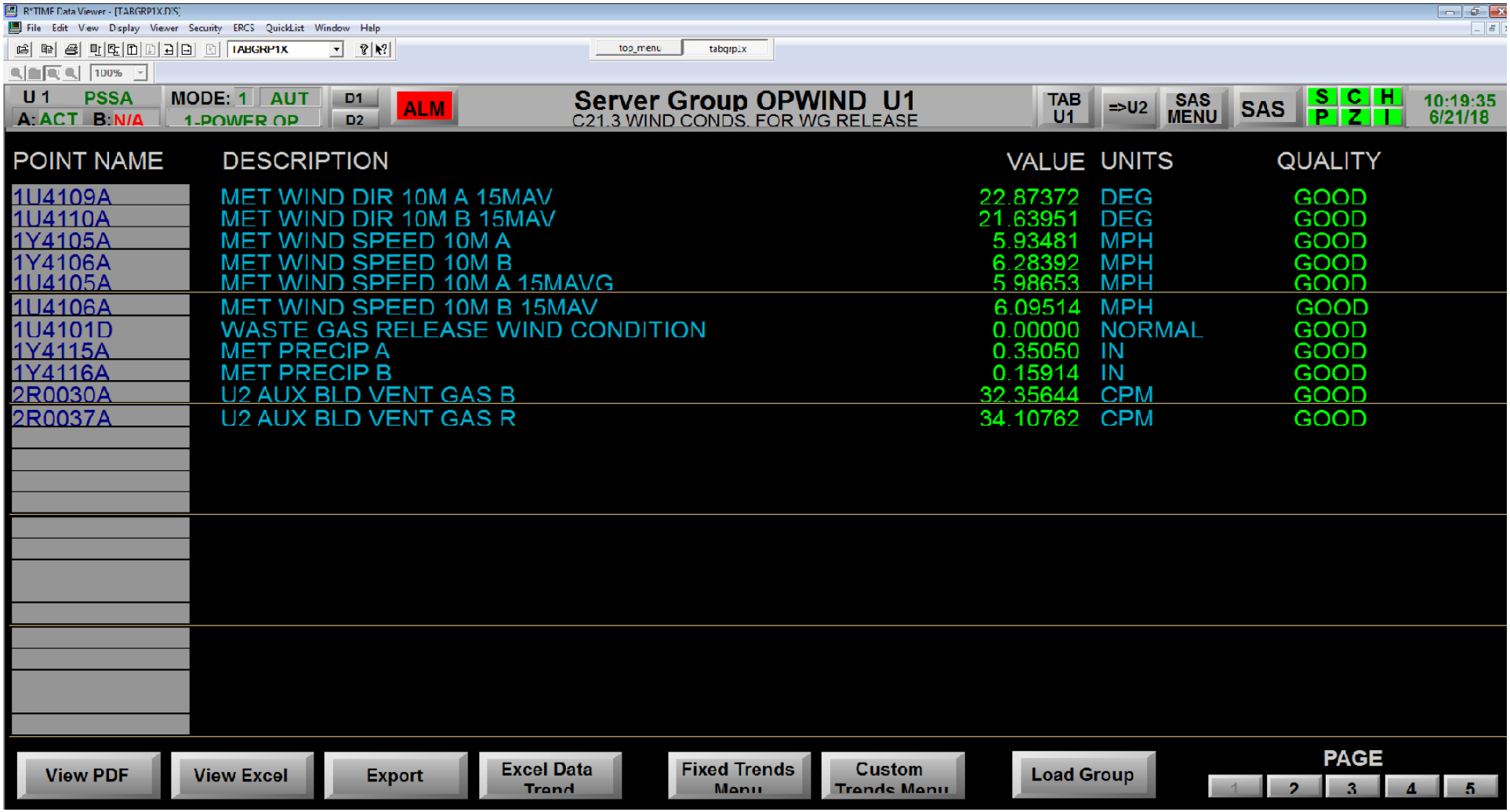
Prepared By	Reviewed By	Approved By (Chem Mgr)
Prepared Date/Time	Review Date/Time	Approved Date/Time

Remarks: _____

1 [redacted]

Retention: Life of Plant
Retain in: Training Record
Form retained in accordance with record retention schedule identified in FP-G-RM-01.

ATTACHMENT 5



Retention: Life of Plant
Retain in: Training Record
Form retained in accordance with record retention schedule identified in FP-G-RM-01.

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **DETERMINE SG LEAKAGE CORRELATION TO R-15 COUNTS**

JPM NUMBER: **ADMIN-29** **REV.** **6**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **CRO 002 ATI 00 00 011, RESPONSE TO SG TUBE LEAK**

K/A NUMBERS: **2.4.11 (4.0/4.2)**

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [ ] Other: [X]

Lab: [ ]

Time for Completion: **15** Minutes Time Critical: **NO**

Alternate Path: **NO**

TASK APPLICABILITY: SRO: [X] RO: [X] NLO [ ]

Additional site-specific signatures may be added as desired.

Developed by:	**Fredrick Collins**	
	Developer	Date
Validated by:	**Justin Hasner**	
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Shawn Sarrasin**	
	Training Supervisor	Date

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

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- ERCS is unavailable.
- 1C4 AOP2 has been implemented in response to indications of SG Tube Leakage.
- Table 1 is being performed for periodic data entry.

- 1R-15 is currently reading 3600 CPM.

- Air Ejector flow is currently reading 3.1 CFM.

INITIATING CUES:

- Update Table 1 of 1C4 AOP2 for the 1045 entry based on current 1R-15 count rates.
- Determine the current Action Level per step 2.4.9 of 1C4 AOP2.

JPM PERFORMANCE INFORMATION

Required Materials: Copy of 1C4 AOP2 Table 1 filled out from 1000 to 1045 per Att. 2 KEY (blue ink only) or copy of Attachment 5 and Attachment 6, 1C4 AOP2 SG Tube Leak step 2.4.9.

General References: 1C4 AOP2, STEAM GENERATOR TUBE LEAK

Task Standards: Examinee determines Steam Generator Tube Leak Action Level 3 is met.

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).

IMPORTANT: 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, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

Performance Step: Critical N	1C4 AOP2, Table 1, step B.1: IF ERCS is out of service OR completing the table for periodic data entry, THEN perform the following: 1. Enter the current date and time in the date/Time column, the current 1R-15 counts in column A, and the air ejector flow in Column H.
Standard:	Examinee records 3600 in Column A for 1R-15 Counts and 3.1 in Column H for air ejector flow.
Evaluator Note:	Current date and time is already entered on Table 1.
Evaluator Cue:	Provide examinee with Attachment 5, Table 1 of 1C4 AOP2 and Attachment 6, step 2.4.9 of 1C4 AOP2. If examinee requests Chemist to perform another leak rate determination based on sample, then inform examinee that sample results will take 1 hour to complete.
Performance:	SATISFACTORY _____ UNSATISFACTORY _____
Comments:	_____

Performance Step:	**1C4 AOP2 Table 1 Step B.2**
Critical Y	**Determine the current leak rate by dividing the 1R-15 counts (Column A) by the most recent conversion factor (Column C) and enter in Column F. (Column A ÷ Column C = Column F).**
Standard:	**Examinee records 116 in Column F for 1R-15 Leak rate.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C4 AOP2, Table 1, step B.3:**
Critical N	**Determine the rate of change (ROC) by dividing the change in leak rate (change in Column F) by the change in time (change in Date/Time column in hours) for the most recent entries and enter in Column G. (Δ Column F ÷ Δ Hours = Column G).**
Standard:	**Examinee records a number between 119 and 120 in column G for 1R-15 Leak rate ROC.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **1C4 AOP2 Step 2.4.9**
Critical Y **Determine the appropriate procedure section:**

Action Level	1U0016A CALC SG TUBE LEAK ROLLING AVG		1U0019A CALC SG TUBE LEAK RATE OF CHANGE	Go To Step
Increased Monitoring	≥ 5 GPD < 30 GPD		NA	2.5
1	≥ 30 GPD < 75 GPD		NA	2.6
2	≥ 75 GPD sustained for 1 hour	AND	< 30 GPD/hr	2.7
3	≥ 75 GPD	AND	≥ 30 GPD/hr	2.8
3	≥ 150 GPD	AND	< 30 GPD/hr	2.8

Standard: **Examinee determines Action Level 3 is met.**

Evaluator Note: **Step 2.4.9 of 1C4 AOP2 is a continuous action step.**

Performance: **SATISFACTORY** ☐ **UNSATISFACTORY** ☐

Comments: _____

Terminating Cues: **Examinee determines Steam Generator Tube Leak Action Level 3 is met.**

Stop Time: _____

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 cover page filled in correctly?	☒	☐	
2. Has the JPM been reviewed and validated by SMEs?	☒	☐	☐
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4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☒	☐	
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?	☒	☐	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	☒	☐	☐
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10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☒	☐	
11. Have all special tools and equipment needed to perform the task been identified?	☒	☐	
12. Are all references identified, current, and accurate?	☒	☐	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☒	☐	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

ATTACHMENT 2 KEY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT — ABNORMAL OPERATING PROCEDURE

C	STEAM GENERATOR TUBE LEAK	NUMBER: 1C4 AOP2 REV: 24 Page 16 of 19

Table 1 SG Leakage Correlation to R-15 Counts (cont'd)

B. IF ERCS is out of service OR completing the table for periodic data entry, THEN **perform** the following:

1. **Enter** the current date and time in the Date/Time column, the current 1R-15 counts in Column A, and the air ejector flow in Column H. _____
2. **Determine** the current leak rate by dividing the 1R-15 counts (Column A) by the most recent conversion factor (Column C) and **enter** in Column F.
(Column A ÷ Column C = Column F) _____
3. **Determine** the rate of change (ROC) by dividing the change in leak rate (change in Column F) by the change in time (change in Date/Time column in hours) for the two most recent entries and **enter** in Column G.
(Δ Column F ÷ Δ Hours = Column G) _____

	Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H
Date/Time	1R-15 Counts (CPM) 1U0018A	Leak rate from Chemist (GPD)	Conversion Factor (CPM/GPD)	1R-15 Counts for 30 GPD Leak	1R-15 Counts for 75 GPD leak	1R-15 Leak rate (GPD)	1R-15 Leak rate ROC (GPD/HR)	Air Ejector flow (cfm)
9-1 / 1000	1255	20	31	930	2325	40.5	-----	3.1
9-1 / 1015	1956					63.1	90.4	3.1
9-1 / 1030	2675					86.3	92.8	3.1
9-1 / 1045	3600					116.1	119.3	3.1

ATTACHMENT 3

JPM Number: ADMIN-29

JPM Title: DETERMINE SG LEAKAGE CORRELATION TO R-15 COUNTS

Examinee & ID: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Make written comments 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.

ATTACHMENT 4

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- ERCS is unavailable.
- 1C4 AOP2 has been implemented in response to indications of SG Tube Leakage.
- Table 1 is being performed for periodic data entry.

- 1R-15 is currently reading 3600 CPM.

- Air Ejector flow is currently reading 3.1 CFM.

INITIATING CUES:

- Update Table 1 of 1C4 AOP2 for the 1045 entry based on current 1R-15 count rates.
- Determine the current Action Level per step 2.4.9 of 1C4 AOP2.

ATTACHMENT 5

Table 1 SG Leakage Correlation to R-15 Counts (cont'd)

B. IF ERCS is out of service OR completing the table for periodic data entry, THEN **perform** the following:

1. **Enter** the current date and time in the Date/Time column, the current 1R-15 counts in Column A, and the air ejector flow in Column H. _____
2. **Determine** the current leak rate by dividing the 1R-15 counts (Column A) by the most recent conversion factor (Column C) and **enter** in Column F.
   (Column A ÷ Column C = Column F) _____
3. **Determine** the rate of change (ROC) by dividing the change in leak rate (change in Column F) by the change in time (change in Date/Time column in hours) for the two most recent entries and **enter** in Column G.
   (Δ Column F ÷ Δ Hours = Column G) _____

	Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H
Date/Time	1R-15 Counts (CPM) 1U0018A	Leak rate from Chemist (GPD)	Conversion Factor (CPM/GPD)	1R-15 Counts for 30 GPD Leak	1R-15 Counts for 75 GPD leak	1R-15 Leak rate (GPD)	1R-15 Leak rate ROC (GPD/HR)	Air Ejector flow (cfm)
9-1 / 1000	1255	20	31	930	2325	40.5	-----	3.1
9-1 / 1015	1956					63.1	90.4	3.1
9-1 / 1030	2675					86.3	92.8	3.1
9-1 / 1045								

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **RCS / STEAM GENERATOR TEMPERATURE VERIFICATION**

JPM NUMBER: **ADMIN-48** **REV.** **5**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **CRO 002 011 01 000 / HEATUP THE REACTOR COOLANT SYSTEM**

K/A NUMBERS: **2.1.20 (4.6/4.6)**

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [ ] Other: [X]

Lab: [ ]

Time for Completion: **8** Minutes Time Critical: **NO**

Alternate Path: **NO**

TASK APPLICABILITY: SRO: [X] RO: [X] NLO [ ]

Additional site-specific signatures may be added as desired.

Developed by:	**Fredrick Collins**	
	Developer	Date
Validated by:	**Justin Hasner**	
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Shawn Sarrasin**	
	Training Supervisor	Date

JPM BRIEFING/TURNOVER
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:

- Unit 1 is in MODE 6.
- Preparations are being made to start the FIRST Reactor Coolant Pump.
- An Out Plant Operator reports SG Skin Temperatures are as follows:
  - 12413, 11 SG SKIN TI = 141°F
  - 12414, 12 SG SKIN TI = 147°F

INITIATING CUES:

- The SS directs you to complete step 5.6.3 of 1C1.2-M5, UNIT 1 STARTUP TO MODE 5, and determine whether or not an RCP can be started.

JPM PERFORMANCE INFORMATION

Required Materials: Consumable copy of 1C1.2-M5, step 5.6.3 (pages 31-32).

General References: 1C1.2-M5, UNIT 1 STARTUP TO MODE 5, REV 12

Task Standards: Examinee determines the SG to RCS ΔT is 22°F and the limiting SG to RCS ΔT of 15°F has been exceeded.

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).

IMPORTANT: 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, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

Performance Step: **Critical N**	**1C1.2-M5, step 5.6.3:** **Verify the secondary water temperature of each SG is less than 15°F warmer than the RCS cold leg temperatures before starting an RCP as follows:** **A. Record SG skin temperatures at the SG skin pyrometer locations:** • **12413, 11 SG SKIN TI** • **12414, 12 SG SKIN TI**
Standard:	**Examinee records 11 and 12 SG Skin Temperatures.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: **Critical Y**	**1C1.2-M5, step 5.6.3:** **Verify the secondary water temperature of each SG is less than 15°F warmer than the RCS cold leg temperatures before starting a RCP as follows:** **B. Record RCS cold leg temperatures:** • **1T0406A, RCS A TCOLD 450B** • **1T0426A, RCS B TCOLD 451B**
Standard:	**Examinee obtains and records RCS A and B cold leg temperatures.**
Evaluator Cue:	**When examinee has demonstrated the ability to locate RCS cold leg temps, then provide the examinee with the following:** • **1T0406A, RCS A TCOLD 450B = 125°F** • **1T0426A, RCS B TCOLD 451B = 127°F**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical Y**	**1C1.2-M5, step 5.6.3.C:** **Determine the limiting SG to RCS temperature difference by subtracting the lowest RCS cold leg temperature from the highest SG skin temperature:** **_____°F - _____°F = _____°F** **Highest SG Skin T** **Lowest RCS cold leg T** **ΔT**
Standard:	**Examinee determines the SG to RCS temperature difference is 22°F.**
Evaluator Note:	**Calculation: 147°F – 125°F = 22°F**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical Y**	**1C1.2-M5, step 5.6.3.D:** **Verify the limiting SG to RCS temperature difference is less than 15°F.**
Standard:	**Examinee determines the limiting SG to RCS ΔT is GREATER than 15°F and step D is NOT met.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **When examinee determines the SG to RCS ΔT is 22°F and the limiting ΔT of 15°F has been exceeded, then this JPM is complete.**

Stop Time: _____

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 cover page filled in correctly?	☒	☐	
2. Has the JPM been reviewed and validated by SMEs?	☒	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☒	☐	☐
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☒	☐	
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?	☒	☐	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	☒	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☒
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	☒	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	☒	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☒	☐	
11. Have all special tools and equipment needed to perform the task been identified?	☒	☐	
12. Are all references identified, current, and accurate?	☒	☐	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☒	☐	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

ATTACHMENT 2

JPM Number: ADMIN-48

JPM Title: STEAM GENERATOR TEMPERATURE VERIFICATION

Examinee & ID: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Make written comments 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.

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is in MODE 6.
- Preparations are being made to start the FIRST Reactor Coolant Pump.
- An Out Plant Operator reports SG Skin Temperatures are as follows:
  - 12413, 11 SG SKIN TI = 141°F
  - 12414, 12 SG SKIN TI = 147°F

INITIATING CUES:

- The SS directs you to complete step 5.6.3 of 1C1.2-M5, UNIT 1 STARTUP TO MODE 5, and determine whether or not an RCP can be started.

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **DETERMINE RECOMMENDED TURBINE STARTUP AND LOAD TIME**

JPM NUMBER: **ADMIN-78** **REV.** **2**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **CRO 048 012 01 04 000 / ADJUST TURBINE LOAD RATES**

K/A NUMBERS: **2.1.25 (3.9/4.2)**

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [ ] Other: [X]

Lab: [ ]

Time for Completion: **13** Minutes Time Critical: **NO**

Alternate Path: **NO**

TASK APPLICABILITY: SRO: [X] RO: [X] NLO [ ]

Additional site-specific signatures may be added as desired.

Developed by:	**Fredrick Collins**	
	Developer	Date
Validated by:	**Justin Hasner**	
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Shawn Sarrasin**	
	Training Supervisor	Date

JPM BRIEFING/TURNOVER
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:

- A plant startup is in progress.
- Preparations are in progress to roll the turbine off the turning gear IAW 1C1.2-M1, Unit 1 Startup to Mode 1.

INITIATING CUES:

- The Shift Supervisor directs you to determine the following IAW 1C1.2-M1, section 5.3.35, step A:
  - Turbine acceleration rate
  - Maximum recommended loading rate

ADMIN-78, DETERMINE RECOMMENDED TURBINE STARTUP AND LOAD TIME, REV. 2

JPM PERFORMANCE INFORMATION

Required Materials:	**Calculator** **Attachment 4, DEHC screen showing ERCS points 14019, 14020 and 14088.** **Consumable copy of 1C1.2-M1 and Fig. C1-2A.**
General References:	**1C1.2-M1, Unit 1 Startup to Mode 1,** **Figure C1-2A, Recommended Startup and Loading Times**
Task Standards:	**Examinee determines the correct turbine acceleration times and maximum recommended loading rate calculated per 1C1.2-M1 Att. 1.**

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).

IMPORTANT: 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, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

Performance Step: **Critical N**	**1C1.2-M1, section 5.3.35:** **Determine the turbine acceleration rate as follows:** **A. Using "Turbine Temperatures" screen, determine the following:** **1. LP 1ST Stage metal temperatures:** **14019 _____°F for LP1** **14020 _____°F for LP2** **2. HP impulse chamber metal temperature:** **14088 _____°F for Imp Chamber**
Standard:	**Examinee determines 14019 is 55.4°F, 14020 is 56.5°F and 14088 is 190.4 °F.**
Evaluator Cue	**Provide Attachment 4 when examinee asks for DEHC temperature points.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N**	**1C1.2-M1, section 5.3.35:** **B. Complete Attachment 1, Turbine Loading Calculation.**
Standard:	**Examinee transitions to 1C1.2-M1 Attachment 1.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical N**	**1C1.2-M1, Attachment 1, step 1:** **1. Record HP Turbine First Stage Metal Temperature from 1C1.2-M1 Step 5.3.35.A.2** **HP Turbine First Stage Metal Temperature _____°F**
Standard:	**Examinee records temperature for 14088 Imp Chamber as 190.4°F.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical Y**	**1C1.2-M1, Attachment 1, step 2:** **2. Determine the time to accelerate to synch from Figure C1-2A:** **Time = _____ minutes**
Standard:	**Examinee determines the time to be 11.25-13.75 minutes (11 min 15 sec – 13 min 45 sec).**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: 1C1.2-M1, Attachment 1, step 3:
Critical Y

3. Calculate the maximum recommended acceleration rate:

1800 rpm/ _____ minutes = _____ rpm/min

Standard: Examinee calculates an acceleration rate of 130-160 rpm/min.

Performance: SATISFACTORY _____ UNSATISFACTORY _____

Comments: _____

Performance Step: 1C1.2-M1, Attachment 1, step 4:
Critical Y

4. Determine the recommended time to hold at approximately 15% reactor power from figure C1-2A:

Hold for _____ minutes

Standard: Examinee determines a time of 27-33 minutes.

Performance: SATISFACTORY _____ UNSATISFACTORY _____

Comments: _____

Performance Step: 1C1.2-M1, Attachment 1, step 5:
Critical Y

5. Determine the time to raise load to 100% from Figure C1-2A:

Load increase in _____ minutes

Standard: Examinee determines a time of 85-95 minutes.

Performance: SATISFACTORY _____ UNSATISFACTORY _____

Comments: _____

Performance Step: **Critical Y**	**1C1.2-M1, Attachment 1, step 6:** **6. Determine the maximum recommended loading rate:** **85%/ _____ minutes = _____ %/min**
Standard:	**Examinee determines a load rate of 0.85 to 1.0 %/minute.**
Evaluator Note:	**Examinee may choose DEHC load rates of 0.25%, 0.5% or 1% as the max loading rate since those are the three options that don't exceed the calculated limit, depending on how the final calculation ends up.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **When the examinee determines the correct turbine acceleration times and maximum recommended loading rate calculated per 1C1.2-M1 Att. 1, then this JPM is complete.**

Stop Time: _____

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 cover page filled in correctly?	☒	☐	
2. Has the JPM been reviewed and validated by SMEs?	☒	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☒	☐	☐
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☒	☐	
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?	☒	☐	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	☒	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☒
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	☒	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	☒	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☒	☐	
11. Have all special tools and equipment needed to perform the task been identified?	☒	☐	
12. Are all references identified, current, and accurate?	☒	☐	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☒	☐	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

ADMIN-78, DETERMINE RECOMMENDED TURBINE STARTUP AND LOAD TIME, REV. 2

ATTACHMENT 2

JPM Number: ADMIN-78

JPM Title: DETERMINE RECOMMENDED TURBINE STARTUP AND LOAD TIME

Examinee & ID: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Make written comments 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.

ATTACHMENT 3

TURNOVER SHEET

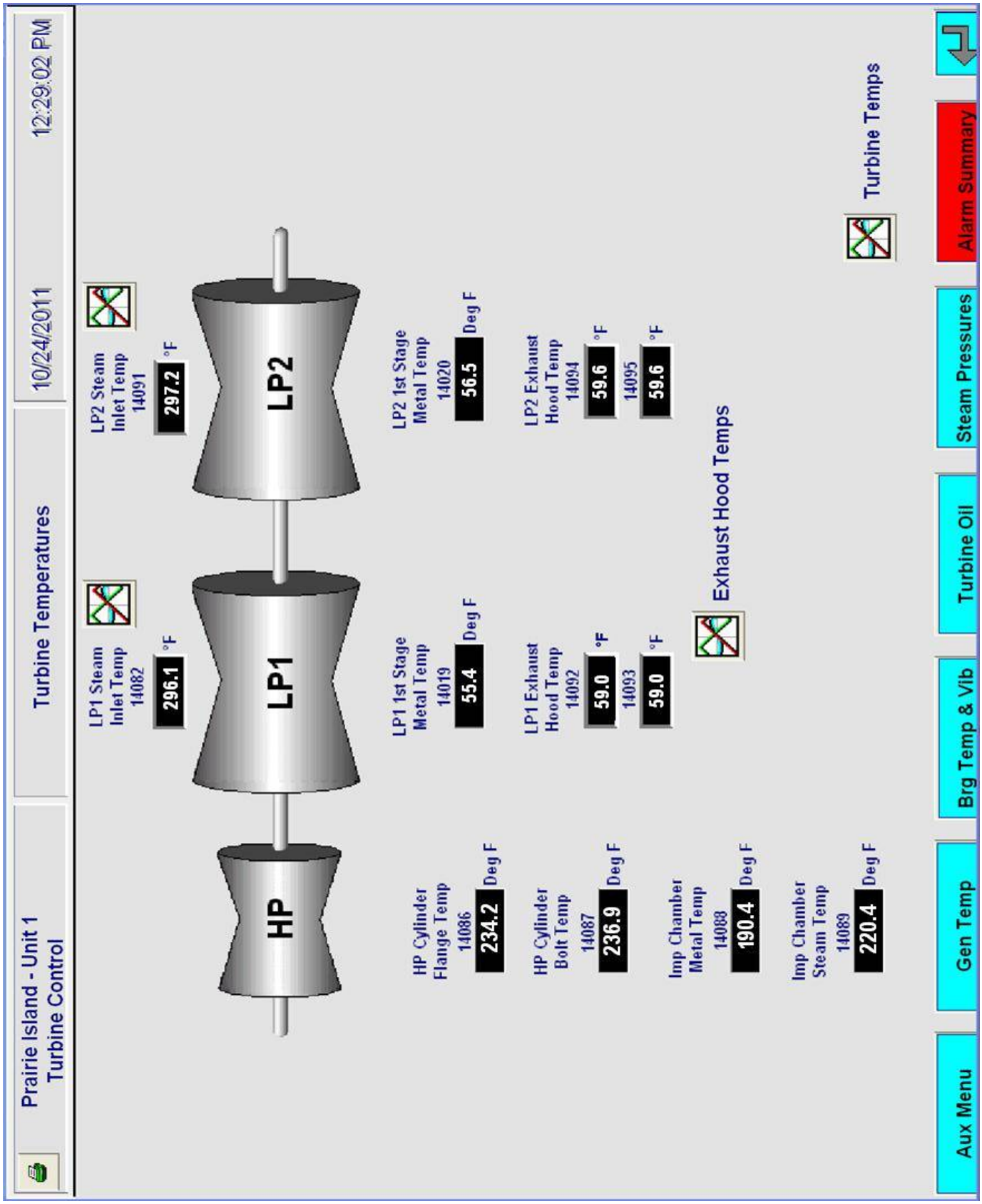
INITIAL CONDITIONS:

- A plant startup is in progress.
- Preparations are in progress to roll the turbine off the turning gear IAW 1C1.2-M1, Unit 1 Startup to Mode 1.

INITIATING CUES:

- The Shift Supervisor directs you to determine the following IAW 1C1.2-M1, section 5.3.35, step A:
  - Turbine acceleration rate
  - Maximum recommended loading rate

ATTACHMENT 4



Retention: Life of Plant
Retain in: Training Record
Form retained in accordance with record retention schedule identified in FP-G-RM-01.

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **ASSESS SHIFT STAFFING LEVELS**

JPM NUMBER: **ADMIN-88** **REV.** **1**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **SS 343 ATI 00 00 009 / ENSURE SHIFT MANNING FOR ALL EVOLUTIONS INCLUDING FFD**

K/A NUMBERS: **2.1.5 (2.9*/3.9)**

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [ ] Other: [X]

Lab: [ ]

Time for Completion: **9** Minutes Time Critical: **NO**

Alternate Path: **NO**

TASK APPLICABILITY: SRO: [X] RO: [ ] NLO [ ]

Additional site-specific signatures may be added as desired.

Developed by:	**Fredrick Collins**	
	Developer	Date
Validated by:	**Justin Hasner**	
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Shawn Sarrasin**	
	Training Supervisor	Date

JPM BRIEFING/TURNOVER
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 the Unit 2 Shift Supervisor.
- Unit 1 and 2 are both at 100% power.

- It is Saturday at 1730.
- Currently on site, there are
  - 2 Shift Supervisors.
  - 4 Licensed Reactor Operators
  - 7 Non-licensed Operators
  - 1 Shift Technical Advisor
  - 1 Shift Manager
  - 1 Shift Chemist
  - 4 Radiation Protection Specialists

- The Shift Technical Advisor (STA) receives a phone call from his relief calling in sick. A call out is made and a relief will not be available until 2100.

- The STA requests permission to leave at 1800 due to family dinner plans.

INITIATING CUES:

- Determine the following using SWI O-2, Shift Organization, Operation & Turnover:
  - Can the STA immediately leave the site?
  - If so, what actions must be taken?

  - Report decisions to evaluator.

ADMIN-88, ASSESS SHIFT STAFFING LEVELS, REV. 1

JPM PERFORMANCE INFORMATION

Required Materials: SWI O-2, SHIFT ORGANIZATION, OPERATION & TURNOVER

General References: SWI O-2, SHIFT ORGANIZATION, OPERATION & TURNOVER

Task Standards: Examinee determines that the STA cannot be released for convenience and must keep the duty until a qualified relief arrives.

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).

IMPORTANT: 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, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

Performance Step: **Critical N**	**SWI O-2 – Table 1, Minimum Shift Staffing:**
Standard:	**Examinee determines minimum shift staffing is currently met.**
Evaluator Note:	**Steps may be performed in any sequence.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: **Critical Y**	**SWI O-2 – Table 1, Minimum Shift Staffing:**
	Note 1. **Shift crew composition may be one less than the minimum requirements for a period of time not to exceed two hours in order to accommodate an unexpected absence of one duty shift crew member provided immediate action is taken to restore the shift crew composition to within the minimum requirements specified. This SHALL NOT be used for convenience.**
Standard:	**Examinee determines the STA is requesting to leave for convenience.**
Evaluator Note:	**Steps may be performed in any sequence.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Performance Step: **Critical Y**	**Table 1 Minimum Shift Staffing:**
	If a person's relief calls in sick, they are to keep the duty until a qualified relief arrives.
Standard:	**Examinee determines the STA is not allowed to leave until a qualified relief arrives.**
Evaluator Note:	**Steps may be performed in any sequence.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **When examinee determines the STA cannot be released for convenience and must keep the duty until a qualified relief arrives, then this JPM is complete.**

Stop Time: _____

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 cover page filled in correctly?	☒	☐	
2. Has the JPM been reviewed and validated by SMEs?	☒	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☒	☐	☐
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☒	☐	
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?	☒	☐	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	☒	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☒
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	☒	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	☒	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☒	☐	
11. Have all special tools and equipment needed to perform the task been identified?	☒	☐	
12. Are all references identified, current, and accurate?	☒	☐	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☒	☐	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

ATTACHMENT 2

JPM Number: ADMIN-88

JPM Title: ASSESS SHIFT STAFFING LEVELS

Examinee & ID: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Make written comments 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.

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 2 Shift Supervisor.
- Unit 1 and 2 are both at 100% power.

- It is Saturday at 1730.
- Currently on site, there are
  - 2 Shift Supervisors.
  - 4 Licensed Reactor Operators
  - 7 Non-licensed Operators
  - 1 Shift Technical Advisor
  - 1 Shift Manager
  - 1 Shift Chemist
  - 4 Radiation Protection Specialists

- The Shift Technical Advisor (STA) receives a phone call from his relief calling in sick. A call out is made and a relief will not be available until 2100.

- The STA requests permission to leave at 1800 due to family dinner plans.

INITIATING CUES:

- Determine the following using SWI O-2, Shift Organization, Operation & Turnover:
  - Can the STA immediately leave the site?
  - If so, what actions must be taken?

  - Report decisions to evaluator.

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **PERFORM SHUTDOWN SAFETY ASSESSMENT FOR DECAY HEAT REMOVAL (RCS)**

JPM NUMBER: **ADMIN-96** **REV.** **2**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **SS 342 ATI 00 00 030 / PERFORM SHUTDOWN SAFETY ASSESSMENT**

K/A NUMBERS: **2.2.18 (2.6/3.9)**

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [ ] Other: [X]

Lab: [ ]

Time for Completion: **10** Minutes Time Critical: **NO**

Alternate Path: **NO**

TASK APPLICABILITY: SRO: [X] RO: [ ] NLO [ ]

Additional site-specific signatures may be added as desired.

Developed by:	**Justin Hasner**	
	Developer	Date
Validated by:	**Fredrick Collins**	
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Shawn Sarrasin**	
	Training Supervisor	Date

ADMIN-96, PERFORM SHUTDOWN SAFETY ASSESSMENT FOR DECAY HEAT REMOVAL (RCS), REV 2

JPM BRIEFING/TURNOVER
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:

- Unit 1 is in a FORCED OUTAGE to repair Reactor Coolant pump seals.
- Due to a change in equipment status, PINGP 1102, UNIT 1 SHUTDOWN SAFETY ASSESSMENT, is being performed for Decay Heat Removal (RCS) only.
- PINGP 1102, pages 1-3 are provided.
- RCS Time to boil is 1 hour.
- RWST is available as a make up source to support pool boil-off
- Equipment status has been completed and verified accurate.

INITIATING CUES:

- Determine the Total points for Decay Heat Removal (RCS) ONLY.
- Determine the current Condition for Decay Heat Removal (RCS).

ADMIN-96, PERFORM SHUTDOWN SAFETY ASSESSMENT FOR DECAY HEAT REMOVAL (RCS), REV 2

JPM PERFORMANCE INFORMATION

Required Materials: Consumable copy of PINGP 1102 and 5AWI 15.6.1

General References: 5AWI 15.6.1, SHUTDOWN SAFETY ASSESSMENT
PINGP 1102, UNIT 1 SHUTDOWN SAFETY ASSESSMENT

Task Standards: Examinee determines Decay Heat Removal (RCS) is a YELLOW condition.

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).

IMPORTANT: 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, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

Performance Step: **11 RHR Available**
Critical Y

Yes	No	
☒	☐	Train A RHR is aligned for Shutdown Cooling
☐	☒	11 RHR Pmp
☒	☐	11 RHR HX
☒	☐	CC Available to 11 RHR HX
☒	☐	Clg Wtr Available to CC HX
☒	☐	Two (2) Clg Wtr Pmps Available (One SFGDS)

11, (21, 121, 12, 22) (Circle Available CL Pmps) (0-1) _____

Standard: **Examinee allocates ZERO points for 11 RHR Available**

Performance: **SATISFACTORY** _____ **UNSATISFACTORY** _____

Comments: _____

ADMIN-96, PERFORM SHUTDOWN SAFETY ASSESSMENT FOR DECAY HEAT REMOVAL (RCS), REV 2

Performance Step: **12 RHR Available**
Critical Y

Yes	No	
☒	☐	Train B RHR is aligned for Shutdown Cooling
☐	☒	12 RHR Pmp
☒	☐	12 RHR HX
☒	☐	CC Available to 12 RHR HX
☒	☐	Clg Wtr Available to CC HX
☒	☐	Two (2) Clg Wtr Pmps Available (One SFGDS)

11, 21, 121, 12, 22 (Circle Available CL Pmps) (0-1) ____

Standard: **Examinee allocates ZERO points for 12 RHR Available**

Performance: **SATISFACTORY** ____ **UNSATISFACTORY** ____

Comments: _____

Performance Step: **Refueling Pool Core Cooling Available**
Critical Y

Yes	No		
☐	☒	At least 6 hours to boiling in the Refueling Pool (Ref. FIG C1-33)	Time to boil: ____
☒	☐	A makeup source is available to support pool boil-off rate. (Ref. FIG C1-33A)	Make-up source: ____
☒	☐	At least one CFCU is available with Cooling Water flow capability of at least 900 gpm.	

(0-1) ____

Standard: **Examinee allocates ZERO points for Refueling Pool Core Cooling Available**

Performance: **SATISFACTORY** ____ **UNSATISFACTORY** ____

Comments: _____

ADMIN-96, PERFORM SHUTDOWN SAFETY ASSESSMENT FOR DECAY HEAT REMOVAL (RCS), REV 2

Performance Step: **11 S.G. Available**

Critical Y

Yes	No	
☒	☐	RCS can be made intact by valve closure with primary and secondary manways installed.
☒	☐	At least one PRESSURIZER PORV can be operated from the Control Room.
☒	☐	At least one Charging Pump is available to pressurize the RCS.
☒	☐	RCS filled and vented
☒	☐	SG Wide Range Level > 60%
☒	☐	AFW available
☒	☐	Steam Release Path (Yes if any of the following are Yes)

Yes	No	
☒	☐	S.G. PORV OPEN or available
☐	☒	MSIV OPEN and STM DUMP valve available
☐	☒	MSIV Bypass OPEN and STM Dump Valve available

(0-1) _____

Standard: **Examinee allocates ONE point for 11 S.G. Available**

Performance: **SATISFACTORY** _____ **UNSATISFACTORY** _____

Comments: _____

ADMIN-96, PERFORM SHUTDOWN SAFETY ASSESSMENT FOR DECAY HEAT REMOVAL (RCS), REV 2

Performance Step:
Critical Y

12 S.G. Available

Yes	No	
☒	☐	RCS can be made intact by valve closure with primary and secondary manways installed.
☒	☐	At least one PRESSURIZER PORV can be operated from the Control Room.
☒	☐	At least one Charging Pump is available to pressurize the RCS.
☒	☐	RCS filled and vented
☒	☐	SG Wide Range Level > 60%
☒	☐	AFW Available
☒	☐	Steam Release Path (Yes if any of the following are Yes)

Yes	No	
☒	☐	S.G. PORV OPEN or available
☐	☒	MSIV OPEN and STM DUMP valve available
☐	☒	MSIV Bypass OPEN and STM Dump Valve available

(0-1) _____

Total Points "**DECAY HEAT REMOVAL**" (**RCS**) Total (0-5) _____

Standard: **Examinee allocates ONE point for 12 S.G. Available**

Performance: **SATISFACTORY** _____ **UNSATISFACTORY** _____

Comments: _____

Performance Step:
Critical Y

Total Points "**DECAY HEAT REMOVAL**" (**RCS**) Total (0-5) _____

Standard: **Examinee allocates TWO points for Decay Heat Removal RCS and determines DHR RCS is YELLOW**

Performance: **SATISFACTORY** _____ **UNSATISFACTORY** _____

Comments: _____

Terminating Cues: **When examinee has determined Decay Heat Removal RCS is a Yellow condition, then this JPM is complete.**

Stop Time: _____

ADMIN-96, PERFORM SHUTDOWN SAFETY ASSESSMENT FOR DECAY HEAT REMOVAL (RCS), REV 2

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 cover page filled in correctly?	☒	☐	
2. Has the JPM been reviewed and validated by SMEs?	☒	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☒	☐	☐
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☒	☐	
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?	☒	☐	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	☒	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☒
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	☒	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	☒	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☒	☐	
11. Have all special tools and equipment needed to perform the task been identified?	☒	☐	
12. Are all references identified, current, and accurate?	☒	☐	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☒	☐	

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

ADMIN-96, PERFORM SHUTDOWN SAFETY ASSESSMENT FOR DECAY HEAT REMOVAL (RCS), REV 2

ATTACHMENT 2

JPM Number: ADMIN – 96

JPM Title: PERFORM SHUTDOWN SAFETY ASSESSMENT FOR DECAY HEAT REMOVAL (RCS)

Examinee & ID: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Make written comments 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.

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is in a FORCED OUTAGE to repair Reactor Coolant pump seals.
- Due to a change in equipment status, PINGP 1102, UNIT 1 SHUTDOWN SAFETY ASSESSMENT, is being performed for Decay Heat Removal (RCS) only.
- PINGP 1102, pages 1-3 are provided.
- RCS Time to boil is 1 hour.
- RWST is available as a make up source to support pool boil-off
- Equipment status has been completed and verified accurate.

INITIATING CUES:

- Determine the Total points for Decay Heat Removal (RCS) ONLY.
- Determine the current Condition for Decay Heat Removal (RCS).

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: PRAIRIE ISLAND

JPM TITLE: PERFORM RCS LEAKAGE INVESTIGATION (PRT)

JPM NUMBER: ADMIN-100 **REV.** 1

RELATED PRA INFORMATION: LOCA TOTAL – 14.3%

TASK NUMBERS / TASK TITLE(S): CRO 002 999 00 00 000 / OPERATE THE REACTOR COOLANT SYSTEM
CRO 002 ATI 00 00 017 / PERFORM RCS LEAKAGE INVESTIGATION

K/A NUMBERS: 2.2.12 (3.7/4.1)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]
Simulator: [ ] Other: [X]
Lab: [ ]

Time for Completion: **7** Minutes Time Critical: **NO**

Alternate Path: **NO**

TASK APPLICABILITY: SRO: [X] RO: [X] NLO [ ]

Additional site-specific signatures may be added as desired.

Developed by:	**Justin Hasner**	
	Developer	Date
Validated by:	**Zach Elbert**	
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Shawn Sarrasin**	
	Training Supervisor	Date

ADMIN-100, PERFORM RCS LEAKAGE INVESTIGATION (PRT), REV. 1

JPM BRIEFING/TURNOVER
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:

- SP1001AA, Daily Reactor Coolant System Leakage Test has just been completed.
- Steps 7.2.1 through 7.2.3 of SP1001AAA are complete.
- Step 7.2.3 of SP1001AAA was completed at **1051**.
- PRT level, as read on 1L1-442, at the time step 7.2.3 was completed was **70%**.

INITIATING CUES:

- The Shift Supervisor directs you to complete step 7.2.4 of SP1001AAA, Reactor Coolant System Leakage Investigation.

ADMIN-100, PERFORM RCS LEAKAGE INVESTIGATION (PRT), REV. 1

JPM PERFORMANCE INFORMATION

Required Materials: Consumable copy of pages 7 and 8 of SP1001AAA, Reactor Coolant System Leakage Investigation, with the following data entered:

- Step 7.2.1 marked NA.
- Step 7.2.2 marked with the following data:
  - PRT level is 68%.
  - PRT Gallons are 4300.
  - Time is 0831.
- Step 7.2.3 marked complete with the bullet next to "2 hour period" circle/slashed.

Calculator
Unit 1 Tank Book – 11 & 21 PRT Level/Volume Graph

General References: SP1001AAA
Unit 1 Tank Book

Task Standards: Examinee determines that leakage into PRT is ~ 0.7 gpm.

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).

IMPORTANT: 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, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

Performance Step: **Critical Y**	**SP1001AAA, Step 7.2.4, Bullet 1:** **Final RCDT level using ERCS point 1L0485A, PRZR RELIEF TK L, or 1LI-442, PRT Level:**
Standard:	**Examinee enters 70% for final PRT level, 4400 gallons for final PRT level, and 100 gallons for Gallons Changed.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

ADMIN-100, PERFORM RCS LEAKAGE INVESTIGATION (PRT), REV. 1

Performance Step: **Critical Y**	**SP1001AAA, Step 7.2.4, Bullet 2:** **Time final PRT level reading recorded:**
Standard:	**Examinee enters 1051 for time final PRT level was recorded, 140 min for duration of the test, and calculates the rate of change to be ~0.7 gpm.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **When examinee has determined that leakage into the RCDT is ~0.7 gpm, then this JPM is complete.**

Stop Time: _____

ADMIN-100, PERFORM RCS LEAKAGE INVESTIGATION (PRT), REV. 1

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 cover page filled in correctly?	☒	☐	
2. Has the JPM been reviewed and validated by SMEs?	☒	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☒	☐	☐
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☒	☐	
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?	☒	☐	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	☒	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☒
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	☒	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	☒	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☒	☐	
11. Have all special tools and equipment needed to perform the task been identified?	☒	☐	
12. Are all references identified, current, and accurate?	☒	☐	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☒	☐	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

ADMIN-100, PERFORM RCS LEAKAGE INVESTIGATION (PRT), REV. 1

ATTACHMENT 2

JPM Number: ADMIN-100

JPM Title: PERFORM RCS LEAKAGE INVESTIGATION (PRT)

Examinee & ID: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Make written comments 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.

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- SP1001AA, Daily Reactor Coolant System Leakage Test has just been completed.
- Steps 7.2.1 through 7.2.3 of SP1001AAA are complete.

- Step 7.2.3 of SP1001AAA was completed at **1051**.

- PRT level, as read on 1L1-442, at the time step 7.2.3 was completed was **70%**.

INITIATING CUES:

- The Shift Supervisor directs you to complete step 7.2.4 of SP1001AAA, Reactor Coolant System Leakage Investigation.

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: PRAIRIE ISLAND

JPM TITLE: DETERMINE PINGP 577 ERRORS ON INITIAL CLASSIFICATION

JPM NUMBER: ADMIN-106 **REV.** 0

RELATED PRA INFORMATION: NONE

TASK NUMBERS / TASK TITLE(S): SS 344 023 03 03 000 / DIRECT EMERGENCY RESPONSE FOR THE EMERGENCY DIRECTOR

K/A NUMBERS: 2.4.40 (2.7/4.5)

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [ ] Other: [X]

Lab: [ ]

Time for Completion: **10** Minutes Time Critical: **YES**

Alternate Path: **NO**

TASK APPLICABILITY: SRO: [X] RO: [ ] NLO [ ]

Additional site-specific signatures may be added as desired.

Developed by:	**Fredrick Collins**	
	Developer	Date
Validated by:	**Justin Hasner**	
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Shawn Sarrasin**	
	Training Supervisor	Date

ADMIN-106, DETERMINE PINGP 577 ERRORS ON INITIAL CLASSIFICATION, REV. 0

JPM BRIEFING/TURNOVER
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 the Unit 1 Shift Supervisor.
- Unit 1 has experienced a Large Break Loss of Coolant Accident.
- A SITE AREA EMERGENCY based on EAL FS1 has been declared due to Loss of RCS Barrier and Potential Loss of Containment Barrier.

- The Shift Manager completed filling out the PINGP 577 for initial notification for FS1 **5 minutes ago**.

INITIATING CUES:

- Wind Speed – 11.0 MPH
- Wind Direction – 255°
- Stability Class – A

- The Shift Manager has tasked you with performing the independent verification of his completed PINGP 577.
  - Review the completed PINGP 577.
  - Determine if is suitable for delivery to the SEC and return the form to the Shift Manager.

THIS JPM IS TIME CRITICAL

ADMIN-106, DETERMINE PINGP 577 ERRORS ON INITIAL CLASSIFICATION, REV. 0

JPM PERFORMANCE INFORMATION

Required Materials:	**Consumable copies of Attachments 5 & 6, PINGP 577 & 1576 – Student** **Consumable copies of PINGP 577 pages 2-12** **PINGP 1576**
General References:	**F3-2, Classification of Emergencies** **PINGP 577, Rev. 60** **PINGP 1576, Rev. 10**
Task Standards:	**Determine errors exist in Blocks 4 (GE circled vice SAE), Block 5 (time/date/EAL# not filled in), and Block 8 (incorrect downwind sectors circled) of PINGP 577 and return the form to the Shift Manager for correction.**

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).

IMPORTANT: 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, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

Performance Step: **Critical Y**	**Review completed PINGP 577.**
Standard:	**Examinee reviews PINGP 577 and determines the following errors exist:** • **Block 4: The incorrect declaration is circled.** • **Block 5: Time/Date/EAL# are not filled in** • **Block 8: The incorrect downwind sectors are circled.**
Evaluator Note:	**Errors are noted in RED on KEY with correct information with exception of time and date as the actual time/date are inconsequential.**
Evaluator Cues:	**Provide examinee with Attachments 5 & 6, PINGP 577 & PINGP 1576.** **If examinee asks for time/date, inform examinee that they can use the current time/date.**
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

ADMIN-106, DETERMINE PINGP 577 ERRORS ON INITIAL CLASSIFICATION, REV. 0

Performance Step: **Critical Y**	**Determine if PINGP 577 is suitable for delivery to SEC and return the form to the Shift Manager.**
Standard:	**Examinee determines that the PINGP 577 CANNOT be delivered to the SEC as is without fixing the errors.**
Evaluator Note:	**The examinee marking the errors on the form or informing the evaluator of the errors is sufficient to complete this step.**
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: **When examinee has determined errors exist in Blocks 4 (GE circled vice SAE), Block 5 (time/date/EAL# not filled in), and Block 8 (incorrect downwind sectors circled) of PINGP 577 and returned the form to the Shift Manager for correction, then this JPM is complete.**

Stop Time: _____

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 cover page filled in correctly?	☒	☐	
2. Has the JPM been reviewed and validated by SMEs?	☒	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☒	☐	☐
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☒	☐	
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?	☒	☐	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	☒	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☒
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	☒	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	☒	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☒	☐	
11. Have all special tools and equipment needed to perform the task been identified?	☒	☐	
12. Are all references identified, current, and accurate?	☒	☐	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☒	☐	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

ATTACHMENT 2

PINGP 577, Rev 60
Page 1 of 12
Doc Type/Sub Type: N/A
Retention: N/A

KEY

EMERGENCY NOTIFICATION REPORT FORM

1. REASON FOR CALL [A] Initial Report [B] Emergency Class Change [C] PAR Change [D] Release Status Change Only

2. STATUS
[A] ACTUAL EVENT
[B] DRILL/EXERCISE

3. AFFECTED STATION
[C] PRAIRIE ISLAND NUCLEAR GENERATING PLANT

4. ONSITE CLASSIFICATION
[A] UNUSUAL EVENT
[B] ALERT
[C] SITE AREA EMERGENCY
[D] GENERAL EMERGENCY
[E] RECOVERY
[F] TERMINATED

5. TIME & DATE OF CLASSIFICATION / PAR CHANGE / TERMINATION
[A] CLASSIFICATION TIME XXXX DATE XXXX EAL # FS1
[B] PAR CHANGE TIME _____ DATE _____
[C] TERMINATION TIME _____ DATE _____
[D] RELEASE STATUS CHANGE ONLY

6. EVENT RELEASE STATUS
[A] NONE [B] OCCURRING [C] TERMINATED

7. TYPE OF RELEASE
[A] NOT APPLICABLE [B] AIRBORNE [C] LIQUID

8. WIND DIRECTION (*Use current 15 minute average and Table 1 to choose currently affected downwind Sectors, if < 5 mph all sectors are affected.*)
FROM 255 DEGREES
DOWNWIND SECTORS: A B C D E F G H J K L M N P Q R
(*Circle currently affected sectors.*)

9. WIND SPEED & STABILITY CLASS (*Use current 15 minute average.*)
MILES/HR.: 11.0
STABILITY CLASS: A B C D E F G
unstable <= => stable

10. PRECAUTIONARY MEASURES and PROTECTIVE ACTION RECOMMENDATIONS (*Use Table 1 to choose affected downwind Sectors and geopolitical Subareas.*)
[A] NONE
[B] EVACUATE (or SHELTER) _____ SECTORS OUT TO 2 MILES
EVACUATE (or SHELTER) _____ SECTORS FROM 2 MILES TO 5 MILES
EVACUATE (or SHELTER) _____ SECTORS FROM 5 MILES TO 10 MILES
Affected SUBAREAS: (*circle all that apply*) 2 5N 5E 5S 5W 10NW 10N 10NE 10E 10SE 10SW 10W
AND PUBLIC IN THOSE AFFECTED SUBAREAS TAKE KI IF AVAILABLE;
AND REMAINDER OF PLUME EPZ TO MONITOR RADIO/TV BROADCASTS FOR FURTHER INFORMATION.
(*Clarifying notes, if needed*)_____
[C] PRECAUTIONARY MEASURE FOR CASINO SHUTDOWN AND DISMISSAL OF STAFF AND PATRONS.
[D] PRECAUTIONARY MEASURE TO ADVISE CASINO AND RESIDENTS WITHIN A 2 MILE RADIUS TO STAY INDOORS AND CONTINUE TO MONITOR RADIO/TV BROADCASTS FOR FURTHER INFORMATION.
[E] OTHER: _____

11. ADDITIONAL INFORMATION (*Apply the EAL Gum Label or write the event descriptions based on the EAL. If PAR Change, write "None", "PAR Change" or other PAR information. If Release Status Change Only, specify time of change. If terminating, specify reason.*)
FS1 – Loss or Potential Loss of ANY two Barriers.

APPROVAL SIGNATURE
Jim Smith
EMERGENCY DIRECTOR/EMERGENCY MANAGER

12. EMERGENCY COMMUNICATOR (*Print Name*)
_____
(*Circle or indicate the appropriate callback number.*)
- Control Room Callback (612) 330-6893
- TSC Callback (651) 388-1121 Ext. 4369
- Other Callback _____
- Security Event SEC _____
- EOF Callback (651) 388-1121 Ext. 5241
- Backup EOF Callback (612) 330-5753

**Italic words provide guidance for the person completing this form. See Directions for more guidance on completing form*

Retention: Life of Plant
Retain in: Training Record
Form retained in accordance with record retention schedule identified in FP-G-RM-01.

ADMIN-106, DETERMINE PINGP 577 ERRORS ON INITIAL CLASSIFICATION, REV. 0

ATTACHMENT 3

JPM Number: ADMIN-106

JPM Title: DETERMINE PINGP 577 ERRORS ON INITIAL CLASSIFICATION

Examinee & ID: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Make written comments 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.

ATTACHMENT 4

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 Shift Supervisor.
- Unit 1 has experienced a Large Break Loss of Coolant Accident.
- A SITE AREA EMERGENCY based on EAL FS1 has been declared due to Loss of RCS Barrier and Potential Loss of Containment Barrier.

- The Shift Manager completed filling out the PINGP 577 for initial notification for FS1 **5 minutes ago**.

INITIATING CUES:

- Wind Speed – 11.0 MPH
- Wind Direction – 255°
- Stability Class – A

- The Shift Manager has tasked you with performing the independent verification of his completed PINGP 577.
    - Review the completed PINGP 577.
    - Determine if is suitable for delivery to the SEC and return the form to the Shift Manager.

THIS JPM IS TIME CRITICAL

ATTACHMENT 5

PINGP 577, Rev 60
Page 1 of 12
Doc Type/Sub Type: N/A
Retention: N/A

EMERGENCY NOTIFICATION REPORT FORM

1. **REASON FOR CALL** [A] Initial Report [B] Emergency Class Change [C] PAR Change [D] Release Status Change Only

2. **STATUS**
   [A] ACTUAL EVENT
   [B] DRILL/EXERCISE

3. **AFFECTED STATION**
   [C] PRAIRIE ISLAND NUCLEAR GENERATING PLANT

4. **ONSITE CLASSIFICATION**
   [A] UNUSUAL EVENT
   [B] ALERT
   [C] SITE AREA EMERGENCY
   [D] GENERAL EMERGENCY
   [E] RECOVERY
   [F] TERMINATED

5. **TIME & DATE OF CLASSIFICATION / PAR CHANGE / TERMINATION**
   [A] CLASSIFICATION TIME _____ DATE _____ EAL # _____
   [B] PAR CHANGE TIME _____ DATE _____
   [C] TERMINATION TIME _____ DATE _____
   [D] RELEASE STATUS CHANGE ONLY

6. **EVENT RELEASE STATUS**
   [A] NONE [B] OCCURRING [C] TERMINATED

7. **TYPE OF RELEASE**
   [A] NOT APPLICABLE [B] AIRBORNE [C] LIQUID

8. **WIND DIRECTION** (*Use current 15 minute average and Table 1 to choose currently affected downwind Sectors, if < 5 mph all sectors are affected.*)
   FROM 255 DEGREES
   DOWNWIND SECTORS: A B C D E F G H J K L M N P Q R
   (*Circle currently affected sectors.*)

9. **WIND SPEED & STABILITY CLASS** (*Use current 15 minute average.*)
   MILES/HR.: 11.0
   STABILITY CLASS: A B C D E F G
   unstable <= => stable

10. **PRECAUTIONARY MEASURES and PROTECTIVE ACTION RECOMMENDATIONS** (*Use Table 1 to choose affected downwind Sectors and geopolitical Subareas.*)
    [A] NONE
    [B] EVACUATE (or SHELTER) _____ SECTORS OUT TO 2 MILES
    EVACUATE (or SHELTER) _____ SECTORS FROM 2 MILES TO 5 MILES
    EVACUATE (or SHELTER) _____ SECTORS FROM 5 MILES TO 10 MILES
    Affected SUBAREAS: (*circle all that apply*) 2 5N 5E 5S 5W 10NW 10N 10NE 10E 10SE 10SW 10W
    AND PUBLIC IN THOSE AFFECTED SUBAREAS TAKE KI IF AVAILABLE;
    AND REMAINDER OF PLUME EPZ TO MONITOR RADIO/TV BROADCASTS FOR FURTHER INFORMATION.
    (*Clarifying notes, if needed*)_____
    [C] PRECAUTIONARY MEASURE FOR CASINO SHUTDOWN AND DISMISSAL OF STAFF AND PATRONS.
    [D] PRECAUTIONARY MEASURE TO ADVISE CASINO AND RESIDENTS WITHIN A 2 MILE RADIUS TO STAY INDOORS AND CONTINUE TO MONITOR RADIO/TV BROADCASTS FOR FURTHER INFORMATION.
    [E] OTHER: _____

11. **ADDITIONAL INFORMATION** (*Apply the EAL Gum Label or write the event descriptions based on the EAL. If PAR Change, write "None", "PAR Change" or other PAR information. If Release Status Change Only, specify time of change. If terminating, specify reason.*)
    FS1 – Loss or Potential Loss of ANY two Barriers.

APPROVAL SIGNATURE
Jim Smith
EMERGENCY DIRECTOR/EMERGENCY MANAGER

12. **EMERGENCY COMMUNICATOR** (*Print Name*)
    _____
    (*Circle or indicate the appropriate callback number.*)
    - Control Room Callback (612) 330-6893
    - TSC Callback (651) 388-1121 Ext. 4369
    - Other Callback _____
    - Security Event SEC _____
    - EOF Callback (651) 388-1121 Ext. 5241
    - Backup EOF Callback (612) 330-5753

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ATTACHMENT 6

Prairie Island Nuclear Generating Plant — EMERGENCY ACTION LEVEL MATRIX

	GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	UNUSUAL EVENT	HOT
	☐ FG1 1 2 3 4 — Loss of ANY two Barriers AND Loss or Potential Loss of Third Barrier (Table F-1).	☒ FS1 1 2 3 4 — Loss or Potential Loss of ANY two Barriers (Table F-1).	☐ FA1 1 2 3 4 — ANY Loss or ANY Potential Loss of EITHER Fuel Clad OR RCS (Table F-1).	☐ FU1 1 2 3 4 — ANY Loss or ANY Potential Loss of Containment (Table F-1).	

Table F-1 FISSION PRODUCT BARRIER REFERENCE TABLE

NOTE

Determine which combination of the three barriers are lost or have a potential loss and use the following key to classify the event. Also an event for multiple events could occur which result in the conclusion that exceeding the Loss or Potential Loss thresholds is imminent (i.e., within 1 to 2 hours). In this imminent loss situation use judgment and classify as if the thresholds are exceeded.

Fission Product Barriers	Fuel Cladding Barrier		RCS Barrier		Containment Barrier		Fission Product Barriers
	☐ Loss	☐ Potential Loss	☒ Loss	☐ Potential Loss	☐ Loss	☒ Potential Loss	
	1. Critical Safety Function Status Core-Cooling Red.	1. Critical Safety Function Status Core Cooling-Orange; OR Heat Sink-Red.	1. Critical Safety Function Status Not Applicable.	1. Critical Safety Function Status RCS Integrity-Red; OR Heat Sink-Red.	1. Critical Safety Function Status Not Applicable.	1. Critical Safety Function Status Containment-Red.	
	2. Primary Coolant Activity Level Coolant Activity GREATER THAN 300 µCi/gm I-131 equivalent.	2. Primary Coolant Activity Level Not Applicable.	☒ 2. RCS Leak Rate GREATER THAN available makeup capacity as indicated by a loss of RCS subcooling LESS THAN 21 [40]* degree F. * Adverse containment conditions are defined as a containment pressure greater than 5 psig or containment radiation level greater than 1E4 R/Hr.	2. RCS Leak Rate Unisolable leak exceeding 60 gpm.	2. Containment Pressure Rapid unexplained decrease following initial increase; OR Containment pressure or sump level response not consistent with LOCA conditions.	☒ 2. Containment Pressure 46 PSIG and increasing; OR Containment hydrogen concentration GREATER THAN OR EQUAL TO 6%; OR Containment pressure GREATER THAN 23 psig with LESS THAN one full train of depressurization equipment operating.	
	3. Core Exit Thermocouple Readings GREATER THAN 1200 degree F.	3. Core Exit Thermocouple Readings GREATER THAN 700 degree F.	3. SG Tube Rupture SGTR that results in an ECCS (SI) Actuation.	3. SG Tube Rupture Not Applicable.	3. Core Exit Thermocouple Readings Not Applicable.	3. Core Exit Thermocouple Readings Core exit thermocouples in excess of 1200 degrees F and restoration procedures not effective within 15 minutes; OR Core exit thermocouples in excess of 700 degrees F with reactor vessel level below 40% RVLIS Full Range and restoration procedures not effective within 15 minutes.	
	4. Reactor Vessel Water Level Not Applicable.	4. Reactor Vessel Water Level Level LESS THAN: - 40% RVLIS Full Range (no RCPs); - 30% RVLIS Dynamic Head Range (1 RCP); - 60% RVLIS Dynamic Head Range (2 RCPs).	4. Containment Radiation Monitoring Containment rad monitor 1(2)R-48 or 49 reading GREATER THAN 7 R/hr.	4. Containment Radiation Monitoring Not Applicable.	4. SG Secondary Side Release with P-to-S Leakage RUPTURED S/G is also FAULTED outside of containment; OR Primary-to-Secondary leak rate GREATER THAN 10 gpm with nonisolable steam release from affected S/G to the environment.	4. SG Secondary Side Release with P-to-S Leakage Not Applicable	
	5. Containment Radiation Monitoring Containment rad monitor 1(2)R-48 or 49 reading GREATER THAN 200 R/hr.	5. Containment Radiation Monitoring Not Applicable.			5. CNMT Isolation Valves Status After CNMT Isolation Containment isolation Valve(s) not closed; AND Direct pathway to the environment exists after Containment Isolation signal.	5. CNMT Isolation Valves Status After CNMT Isolation Not Applicable.	
	6. Other Indications Not Applicable	6. Other Indications Not Applicable.	5. Other Indications Not Applicable.	5. Other Indications Not Applicable.	6. Significant Radioactive Inventory in Containment Not Applicable.	6. Significant Radioactive Inventory to Containment Containment rad monitor 1(2)R-48 or 49 reading GREATER THAN 800 R/hr.	
					7. Other Indications Not Applicable.	7. Other Indications Not Applicable.	
	7. Emergency Director Judgment Any condition in the opinion of the Emergency Director that indicates Loss of the Fuel Clad Barrier.	7. Emergency Director Judgment Any condition in the opinion of the Emergency Director that indicates Potential Loss of the Fuel Clad Barrier.	6. Emergency Director Judgment Any condition in the opinion of the Emergency Director that indicates Loss of the RCS Barrier.	6. Emergency Director Judgment Any condition in the opinion of the Emergency Director that indicates Potential Loss of the RCS Barrier.	8. Emergency Director Judgment Any condition in the opinion of the Emergency Director that indicates Loss of the Containment Barrier.	8. Emergency Director Judgment Any condition in the opinion of the Emergency Director that indicates Potential Loss of the Containment Barrier.	

Retention: Life of Plant
Retain in: Training Record
Form retained in accordance with record retention schedule identified in FP-G-RM-01.