Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: PRAIRIE ISLAND

JPM TITLE: CHARGING PUMP TRIP AFTER SWAPPING CHARGING PUMPS

JPM NUMBER: VC-24SF **REV.** 1

RELATED PRA INFORMATION: NONE

TASK NUMBERS / TASK TITLE(S): CRO 004 ATI 00 00 006 / LOSS OF RCP SEAL INJECTION

K/A NUMBERS: 022 AA2.02 (3.2/3.7)

APPLICABLE METHOD OF TESTING:

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

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

Time for Completion: **12** Minutes Time Critical: **NO**

Alternate Path: **YES**

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

Additional site-specific signatures may be added as desired.

Developed by:	**Shawn Sarrasin**	**1/15/2016**
	Developer	Date
Validated by:	**Justin Hasner**	**1/20/2016**
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Mike Petersen**	**3/25/2016**
	Training Supervisor	Date

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 at 100% power.
- Unit 1 is running 11 Charging Pump only.
- 13 Charging Pump is out of service for corrective maintenance.

- 12 Charging Pump desurger is pressurized in accordance with Section 6.13.
- 11 Charging Pump is in manual.

INITIATING CUES:

- The SS directs you to swap charging pumps such that 12 Charging Pump is running and 11 Charging Pump is secured per steps 6.2.3 through 6.2.12 of 1C12.1, LETDOWN, CHARGING, AND SEAL WATER INJECTION – UNIT 1.

VC-24SF, CHARGING PUMP TRIP AFTER SWAPPING CHARGING PUMPS, REV. 1

JPM PERFORMANCE INFORMATION

Required Materials: Mark steps 6.2.1 and 6.2.2 of 1C12.1 complete.

General References: 1C12.1, LETDOWN, CHARGING, AND SEAL WATER INJECTION – UNIT 1
1C12.1 AOP1, LOSS OF RCP SEAL INJECTION

Task Standards: Examinee restores 11 Charging Pump and seal injection flow after 12 Charging Pump trips.

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:	**1C12.1 Step 6.2.3**
Critical N	**Verify the speed controller of the charging pump to be started in MANUAL at minimum speed.**
Standard:	**Examinee verifies 12 Charging Pump speed control at minimum speed.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C12.1 Step 6.2.4**
Critical N	**Reduce the speed of the inservice charging pump until the seal injection flow drops from 8 gpm to approximately 6 gpm.**
Standard:	**Examinee establishes six gpm seal injection flow by reducing 11 Charging Pump speed.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C12.1 Step 6.2.5**
Critical N	**Verify charging pump discharge header pressure 1PI-133 is less than 2400 psig.**
Standard:	**Examinee verifies 1PI-133 reading less than 2400 psig.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C12.1 Step 6.2.6**
Critical N	**For the charging pump to be started, verify the control switch green light is LIT and white light is NOT LIT.**
Standard:	**Examinee determines the green light is LIT and the white light is NOT LIT.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C12.1 Step 6.2.7**
Critical Y	**Start the oncoming charging pump.**
Standard:	**Examinee starts 12 Charging Pump using CS-46293.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C12.1 Step 6.2.8**
Critical N	**Adjust the inservice charging pump speed to maintain charging pump discharge pressure, 1PI-133 less than 2500 psig and approximately 8 gpm seal injection.**
Standard:	**Examinee lowers speed of 11 Charging Pump.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C12.1 Step 6.2.9**
Critical N	**Simultaneously raise the oncoming charging pump speed, and lower the inservice charging pumps speed, keeping seal injection flow between 6 gpm and 10 gpm.**
Standard:	**Examinee raises the speed of 12 Charging Pump while lowering the speed of 11 Charging Pump while keeping seal injection flow 8 – 10 gpm.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C12.1 Step 6.2.10.A**
Critical N	**When the inservice charging pump is at minimum speed, then adjust the oncoming charging pump speed until seal injection is approximately 9.5 gpm.**
Standard:	**Examinee establishes approximately 9.5 gpm seal injection flow.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C12.1 Step 6.2.10.B**
Critical Y	**Stop the inservice charging pump.**
Standard:	**Examinee stops 11 Charging Pump using CS-46292.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C12.1 Step 6.2.11**
Critical N	**Adjust the running charging pump speed to maintain seal injection flow at eight 8 gpm.**
Standard:	**Examinee adjusts 12 Charging Pump speed control to establish 8 gpm seal injection flow.**
Evaluator Note:	**If 12 Charging Pump trips prior to the examinee completing this step, then this step is NOT applicable.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐ NOT APPLICABLE ☐**
Comments:	_____

ALTERNATE PATH STARTS HERE

Performance Step:	**1C12.1 AOP1 Step 2.4.3**
Critical Y	**If seal injection is lost due to a charging pump failure, then perform the following:** **A. Start any charging pump and/or adjust CV-31198, CHARGING LINE FLOW CONTROL VALVE, using 1HC-142 to restore seal injection.**
Standard:	**Examinee starts 11 Charging Pump and restores seal injection.**
Evaluator Note:	**Examinee may respond using C47015-0104, C47015-0606, or C47015-0607.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Terminating Cues: **When the examinee has restored 11 Charging Pump and seal injection flow is 6 – 10 gpm after 12 Charging Pump trips, then this JPM is complete.**

Stop Time: _____

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- Unit 1 is running 11 Charging Pump only.
- 13 Charging Pump is out of service for corrective maintenance.

- 12 Charging Pump desurger is pressurized in accordance with Section 6.13.
- 11 Charging Pump is in manual.

INITIATING CUES:

- The SS directs you to swap charging pumps such that 12 Charging Pump is running and 11 Charging Pump is secured per steps 6.2.3 through 6.2.12 of 1C12.1, LETDOWN, CHARGING, AND SEAL WATER INJECTION – UNIT 1.

Xcel Energy	JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **ESTABLISH RHR FLOW TO THE REACTOR VESSEL**

JPM NUMBER: **RH-12S** **REV. 0**

RELATED PRA INFORMATION: **LOCA (27.3%)**
11 RHR PUMP
12 RHR PUMP

TASK NUMBERS / TASK TITLE(S): **CRO 301 001 06 01 000 / REACTOR TRIP OR SAFETY INJECTION**

K/A NUMBERS: **006 A4.04 (3.7*/3.6)**

APPLICABLE METHOD OF TESTING:

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

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

Time for Completion: **12** 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:	**Shawn Sarrasin**	**1/18/2016**
	Developer	Date
Validated by:	**Justin Hasner**	**1/20/2016**
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Mike Petersen**	**3/25/2016**
	Training Supervisor	Date

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 reactor trip and safety injection has occurred on Unit 1.
- 11 SI Pump is out of service.

INITIATING CUES:

- The Shift Supervisor directs you to perform Attachment L to 1E-0, SI Alignment Verification.

JPM PERFORMANCE INFORMATION

Required Materials: 1E-0 ATTACHMENT L

General References: 1E-0, REACTOR TRIP OR SAFETY INJECTION

Task Standards: Examinee establishes RHR flow to the reactor vessel.

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:	1E-0 Attachment L, Step 1.a
Critical N	Both trains of SI actuated: • Both RHR pumps – RUNNING -OR- • Both SI pumps - RUNNING
Standard:	Examinee identifies that no SI pumps are running and no RHR pumps are running.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step:	1E-0 Attachment L, Step 1.a RNO
Critical N	Manually actuate SI.
Standard:	Examinee attempts to manually actuate SI by turning CS-46180 or CS-46408.
Evaluator's Note:	SI is already actuated. Turning CS-46180 or CS-46408 will have no effect.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step:	**1E-0 Attachment L, Step 1.b**
Critical N	**"SI NOT READY" lights – NOT LIT**
Standard:	**Examinee determines 44102-2A, 11 SI PUMP NOT READY, light is lit due to 11 SI Pump being out of service and no action is needed.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1E-0 Attachment L, Step 1.c**
Critical N	**"SI ACTIVE" lights – LIT FOR PLANT CONDITIONS**
Standard:	**Examinee determines the following lights on panel 44103 are not lit and should be:** • **1B – 12 SI PUMP RUNNING** • **3A – 11 RHR PUMP RUNNING** • **3B – 12 RHR PUMP RUNNING** • **3C – RH TO RV 8803A OPEN** • **3D – RH TO RV 8803B OPEN**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1E-0 Attachment L, Step 1.c RNO**
Critical Y	**Manually align components as necessary.**
Standard:	**Examinee starts:** • **11 RHR pump using CS-46184** **-AND/OR-** • **12 RHR pump using CS-46185**
Evaluator's Note:	**If attempted, 12 SI Pump will not start.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step: **Critical Y**	**1E-0 Attachment L, Step 1.c RNO** **Manually align components as necessary.**
Standard:	**Examinee opens:** • **MV-32064, RHR to RX VSL, using CS-46223.** **-AND/OR-** • **MV-32065, RHR to RX VSL, using CS-46224.**
Evaluator's Note:	**The performance of this step is considered satisfactory when RHR flow to the reactor vessel has been established.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Terminating Cues: **When the examinee has established RHR flow to the reactor vessel, then this JPM is complete.**

Stop Time: _____

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- A reactor trip and safety injection has occurred on Unit 1.
- 11 SI Pump is out of service.

INITIATING CUES:

- The Shift Supervisor directs you to perform Attachment L to 1E-0, SI Alignment Verification.

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK**

JPM NUMBER: **RC-24SF** **REV. 0**

RELATED PRA INFORMATION: **ISLOCA (4.4%)**

TASK NUMBERS / TASK TITLE(S): **CRO 008 ATI 00 00 011 / RESPONSE TO LEAKAGE INTO THE CC SYSTEM**

K/A NUMBERS: **003 A4.08 (3.2/2.9)**

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: **14** Minutes Time Critical: **NO**

Alternate Path: **YES**

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

Additional site-specific signatures may be added as desired.

Developed by:	**Shawn Sarrasin**	**1/19/2016**
	Developer	Date
Validated by:	**Justin Hasner**	**1/20/2016**
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Mike Petersen**	**3/25/2016**
	Training Supervisor	Date

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 at 100% power.
- Two 40 gpm letdown orifices are in service.

INITIATING CUE:

- The SS directs you to remove CV-31325 letdown orifice from service per Section 6.11 of 1C12.1, LETDOWN, CHARGING & SEAL WATER INJECTION – UNIT 1.

JPM PERFORMANCE INFORMATION

Required Materials: NONE

General References: 1C12.1, LETDOWN, CHARGING & SEAL WATER INJECTION-UNIT 1
1C14 AOP2, LEAKAGE INTO THE COMPONENT COOLING SYSTEM
C47015-0109, 12 RCP THERMAL BARRIER CC WATER HI FLOW
C7, REACTOR CONTROL SYSTEM

Task Standards: Examinee removes one letdown orifice from service and isolates Component Cooling to 12 RCP Thermal Barrier Heat Exchanger.

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:	1C12.1, step 6.11.1
Critical N	IF desired, THEN place 1HC-135A, LTDN PRESS CONT CV-31203, to MANUAL.
Standard:	Examinee places 1HC-135A in MANUAL or leaves 1HC-135A in AUTO.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step:	1C12.1, step 6.11.2
Critical N	Maintain letdown pressure less than 445 psig to prevent lifting the low pressure letdown relief valve.
Standard:	Examinee maintains letdown pressure less than 445 psig.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: **Critical Y**	**1C12.1, step 6.11.3** **CLOSE the desired letdown orifice isolation valve:** • **CV-31325, LTDN ORIFICE ISOL 40 GPM, using CS-46170** **OR** • ~~**CV-31326, LTDN ORIFICE ISOL 40 GPM, using CS-46171**~~ **OR** • ~~**CV-31327, LTDN ORIFICE ISOL 80 GPM, using CS-46174**~~
Standard:	**Examinee closes CV-31325 using CS-46170.**
Evaluator Note:	**If examinee closes CV-31326 instead of CV-31327, then the task will still be met and it will NOT constitute a JPM failure.**
Evaluator Note:	**When examinee has closed one letdown orifice valve and established approximately 30 gpm charging flow, or at the discretion of the evaluator, enter Trigger 1, 12 RCP Thermal Barrier Failure.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step: **Critical N**	**1C12.1, step 6.11.4** **Transfer the inservice charging pump from AUTOMATIC to MANUAL speed control per C7, Reactor Control System.**
Standard:	**Examinee transfers 11 Charging Pump to manual.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step: **Critical N**	**1C12.1, step 6.11.5** **Lower charging pump speed while adjusting 1HC-142, CHG LINE FLOW CONT, to maintain seal injection flow at 8 gpm, until charging flow is about 30 gpm.**
Standard:	**Examinee reduces charging flow to approximately 30 gpm.**
Evaluator Note:	**When examinee has established approximately 30 gpm charging flow OR at evaluator discretion, enter Trigger 1, 12 RCP Thermal Barrier Failure.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C12.1, step 6.11.6**
Critical N	**Transfer one of the inservice charging pumps from MANUAL to AUTOMATIC speed control per C7, Reactor Control System.**
Standard:	**Examinee transfers 11 or 12 Charging Pump to automatic.**
Evaluator Note:	**If examinee transitions to 1C14 AOP2 or C47015-0109, then this step is NOT applicable.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐ NOT APPLICABLE ☐**
Comments:	_____

ALTERNATE PATH STARTS HERE

Performance Step:	**1C14 AOP2, Step 2.4.1.A OR C47015-0109, Step 1**
Critical Y	**Verify CV-31246, 12 RC PUMP THERMAL BARRIER CLNT OUTL, using CS-46026, is CLOSED.**
Standard:	**Examinee closes CV-31246 using CS-46026.**
Evaluator Note:	**If the examinee places CS-46026 in the closed position, then AUTO Trigger 2 will be entered to allow CV-31246 to close.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Terminating Cues: **When examinee has removed one letdown orifice from service and isolated Component Cooling to 12 RCP Thermal Barrier Heat Exchanger, then this JPM is complete.**

Stop Time: _____

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- Two 40 gpm letdown orifices are in service.

INITIATING CUE:

- The SS directs you to remove CV-31325 letdown orifice from service per Section 6.11 of 1C12.1, LETDOWN, CHARGING & SEAL WATER INJECTION – UNIT 1.

Xcel Energy	JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **RESPOND TO FWRV CONTROL FAILURE AND ATWS**

JPM NUMBER: **FW-5SF** **REV.** **0**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **CRO 059 ATI 00 00 007 / TRANSFER SGWLC FROM BYPASS TO MAIN VALVES**

K/A NUMBERS: **059 A2.11 (3.0*/3.3*)**

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: **11** Minutes Time Critical: **NO**

Alternate Path: **YES**

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

Additional site-specific signatures may be added as desired.

Developed by:	**Shawn Sarrasin**	**1/19/2016**
	Developer	Date
Validated by:	**Justin Hasner**	**1/20/2016**
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Mike Petersen**	**3/25/2016**
	Training Supervisor	Date

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 at 90% power due to failure of 12 Main Feed Regulating Valve.
- Repairs to 12 Main Feed Regulating Valve is complete.
- CV-31128, B MAIN FW, is in MANUAL.
- CV-31370, B BYPASS FW, is in AUTO.
- An extra operator is responding to Heater Drain alarms on Panel F.

INITIATING CUES:

- The SS directs you to perform steps 5.4.3.A through 5.4.3.E of 1C28.2, UNIT 1 FEEDWATER SYSTEM, to place CV-31128, B MAIN FW, in AUTOMATIC control.

JPM PERFORMANCE INFORMATION

Required Materials: NONE

General References: 1C28.2, UNIT 1 FEEDWATER SYSTEM
1E-0, REACTOR TRIP OR SAFETY INJECTION
C47017-0305, 12 STM GEN LO-LO LVL REACTOR TRIP

Task Standards: Examinee places the 12 Main FRV in automatic control and responds to a Loss of Feedwater ATWS by manually inserting control rods.

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:	**1C28.2, Step 5.4.3.A**
Critical N	**Verify SG level is being controlled at program level.**
Standard:	**Examinee determines 12 SG level is at 43%.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:	**1C28.2, Step 5.4.3.B**
Critical Y	**Place the associated Feedwater bypass valve in "MAN":** • ~~1HC-480, A BYPASS FW CV-31369~~ **OR** • **1HC-481, B BYPASS FW CV-31370**
Standard:	**Examinee places 1HC-481 in manual.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:	**1C28.2, Step 5.4.3.C**
Critical Y	**Place the affected main feedwater regulating valve in "AUTO":** • ~~1HC-466, A MAIN FW CV-31127~~ **OR** • **1HC-476, B MAIN FW CV-31128**
Standard:	**Examinee places 1HC-476 in auto.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C28.2, Step 5.4.3.D**
Critical Y	**Slowly CLOSE the bypass valve while observing the main valve maintain program SG level:** • ~~1HC-480, A BYPASS FW CV-31369~~ **OR** • **1HC-481, B BYPASS FW CV-31370**
Standard:	**Examinee closes CV-31370 using 1HC-481.**
Evaluator Note:	**When CV-31370 position is less than 20% open, AUTO Trigger 1 will insert to cause 12 Main FRV to fail closed.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C28.2, Step 5.4.3.E**
Critical N	**Verify SG level control maintaining program SG level.**
Standard:	**Examinee recognizes 12 SG is rapidly lowering.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

ALTERNATE PATH STARTS HERE

Performance Step:	**C47017-0305, INITIAL ACTIONS**
Critical N	**Perform 1E-0, Reactor Trip or Safety Injection**
Standard:	**Examinee determines a Reactor Trip first out is received or determines one is eminent and transitions to 1E-0.**
Evaluator Notes:	**The reactor will fail to automatically trip.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1E-0, Step 1 RNO**
Critical N	**Manually trip reactor.**
Standard:	**Examinee performs the following:** **1. Attempts to manually trip the reactor using the following:** • **CS-46450 on Panel C** • **CS-46331 on Panel D** • **CS-46447 on Panel E** **2. Recognizes an ATWS condition** **3. Transitions to 1FR-S.1.**
Evaluator Notes:	• **The reactor will fail to manually trip.** • **When CS-46450 or CS-46331 is placed in TRIP, AUTO Trigger 2 will insert to cause the main turbine to trip.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step: **Critical Y**	**1FR-S.1, Step 1 RNO** **If reactor will NOT trip, then either:** • **Verify automatic rod insertion** **-OR-** • **Manually insert control rods.**
Standard:	**Examinee places CS-46280, ROD BANK SELECTOR, in "MAN" and holds CS-46281, DIGITAL ROD CONTROL, in the "IN" position.**
Evaluator Cue:	**Inform the examinee the Unit 1 Lead RO has tripped the main turbine.**
Evaluator Note:	**Rods will fail to automatically insert.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Terminating Cues: **When the examinee has placed the 12 Main FRV in automatic control and responded to a Loss of Feedwater ATWS by manually inserting control rods, then this JPM is complete.**

Stop Time: _____

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 90% power due to failure of 12 Main Feed Regulating Valve.
- Repairs to 12 Main Feed Regulating Valve is complete.
- CV-31128, B MAIN FW, is in MANUAL.
- CV-31370, B BYPASS FW, is in AUTO.
- An extra operator is responding to Heater Drain alarms on Panel F.

INITIATING CUES:

- The SS directs you to perform steps 5.4.3.A through 5.4.3.E of 1C28.2, UNIT 1 FEEDWATER SYSTEM, to place CV-31128, B MAIN FW, in AUTOMATIC control.

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **ALTERNATE FAN COIL UNITS**

JPM NUMBER: **ZC-2S** **REV.** **0**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **CRO 022 ATI 00 00 007 / CHANGE FAN COIL UNIT FAN SPEED**

K/A NUMBERS: **022 A4.01 (3.6/3.6)**

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [X] Other: [ ]

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:	**Shawn Sarrasin**	**1/18/2016**
	Developer	Date
Validated by:	**Justin Hasner**	**1/20/2016**
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Mike Petersen**	**3/25/2016**
	Training Supervisor	Date

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 at 100% power.
- 11 and 13 CFCUs are running in FAST to the GAP/SUP.
- 12 and 14 CFCUs are running in SLOW to the DOME.

INITIATING CUES:

- The Shift Supervisor directs you to alternate Containment Fan Coil Units and discharge dampers per 1C19.2, Containment Ventilation Unit 1, to the following lineup:
    - 11 and 13 CFCUs running in SLOW to the DOME.
    - 12 and 14 CFCUs running in FAST to the GAP/SUP.

ZC-2S, ALTERNATE FAN COIL UNITS, REV 0

JPM PERFORMANCE INFORMATION

Required Materials: **NONE**

General References: **1C19.2, CONTAINMENT SYSTEM VENTILATION UNIT 1**

Task Standards: **Examinee alternates Containment Fan Coil Units and discharge dampers to 11 and 13 CFCUs running in SLOW to the DOME and 12 and 14 CFCUs running in FAST to the GAP/SUP.**

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:	**1C19.2 step 5.6.4.A.1**
Critical N	**Shift the desired fan coil units to SLOW by placing the control switch in "OFF" for 15 seconds.** • **CS-46018, 11 CNTMT FAN COIL UNIT** • ~~**CS-46020, 12 CNTMT FAN COIL UNIT**~~ • **CS-46019, 13 CNTMT FAN COIL UNIT** • ~~**CS-46021, 14 CNTMT FAN COIL UNIT**~~
Standard:	**Examinee places CS-46018 and CS-46019 in "OFF" for at least 15 seconds.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C19.2 step 5.6.4.A.1**
Critical Y	**Shift the desired fan coil units to SLOW by placing the control switch in "SLOW."** • **CS-46018, 11 CNTMT FAN COIL UNIT** • ~~**CS-46020, 12 CNTMT FAN COIL UNIT**~~ • **CS-46019, 13 CNTMT FAN COIL UNIT** • ~~**CS-46021, 14 CNTMT FAN COIL UNIT**~~
Standard:	**Examinee places CS-46018 and CS-46019 in "SLOW."**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C19.2 step 5.6.4.A.2**
Critical Y	**Align the fan coil unit discharge dampers as desired, observing Precaution 3.7.** • **CS-46440, 11 FCU DISCH TO CNTMT DOME/SUPPORT DMPRS (D)** • **CS-46441, 12 FCU DISCH TO CNTMT DOME/SUPPORT DMPRS (G)** • **CS-46442, 13 FCU DISCH TO CNTMT DOME/SUPPORT DMPRS (D)** • **CS-46443, 14 FCU DISCH TO CNTMT DOME/SUPPORT DMPRS (G)**
Standard:	**Examinee places CS-46440 and CS-46442 in the DOME position and places CS-46441 and CS-46443 in the GAP/SUPPORT position.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C19.2 step 5.6.4.A.3**
Critical N	**Verify the associated white fan coil unit damper improper lights remain NOT LIT:** • **ML-440022-0101, 11 CNTMT FCU DISCH DMPRS IMPROPER** • **ML-440022-0102, 12 CNTMT FCU DISCH DMPRS IMPROPER** • **ML-440022-0201, 13 CNTMT FCU DISCH DMPRS IMPROPER** • **ML-440022-0202, 14 CNTMT FCU DISCH DMPRS IMPROPER**
Standard:	**Examinee verifies all lights on ML-440022 are not lit.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C19.2 step 5.6.4.A.4**
Critical N	**Shift the desired fan coil units to FAST by placing the control switch in "OFF for at least one (1) second:** • ~~**CS-46018, 11 CNTMT FAN COIL UNIT**~~ • **CS-46020, 12 CNTMT FAN COIL UNIT** • ~~**CS-46019, 13 CNTMT FAN COIL UNIT**~~ • **CS-46021, 14 CNTMT FAN COIL UNIT**
Standard:	**Examinee places CS-46020 and CS-46021 in "OFF" for at least one second.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**1C19.2 step 5.6.4.A.4**
Critical Y	**Shift the desired fan coil units to FAST by placing the control switch in "FAST:"** • ~~**CS-46018, 11 CNTMT FAN COIL UNIT**~~ • **CS-46020, 12 CNTMT FAN COIL UNIT** • ~~**CS-46019, 13 CNTMT FAN COIL UNIT**~~ • **CS-46021, 14 CNTMT FAN COIL UNIT**
Standard:	**Examinee places CS-46020 and CS-46021 in "FAST."**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Terminating Cues: **When the examinee has alternated Containment Fan Coil Units and discharge dampers to 11 and 13 CFCUs running in SLOW to the DOME and 12 and 14 CFCUs running in FAST to the GAP/SUP, then this JPM is complete.**

Stop Time: _____

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- 11 and 13 CFCUs are running in FAST to the GAP/SUP.
- 12 and 14 CFCUs are running in SLOW to the DOME.

INITIATING CUES:

- The Shift Supervisor directs you to alternate Containment Fan Coil Units and discharge dampers per 1C19.2, Containment Ventilation Unit 1, to the following lineup:
    - 11 and 13 CFCUs running in SLOW to the DOME.
    - 12 and 14 CFCUs running in FAST to the GAP/SUP.

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **RESPOND TO FAULTY VOLTAGE REGULATOR**

JPM NUMBER: **ED-4SF** **REV.** **1**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **CRO 045 004 01 01 000 / OPERATE GENERATOR VOLTAGE REGULATOR**

K/A NUMBERS: **2.2.44 (4.2/4.4)**

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [X] Other: [ ]

Lab: [ ]

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

Alternate Path: **YES**

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

Additional site-specific signatures may be added as desired.

Developed by:	**Shawn Sarrasin**	**1/19/2016**
	Developer	Date
Validated by:	**Justin Hasner**	**1/20/2016**
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Mike Petersen**	**3/25/2016**
	Training Supervisor	Date

ED-4SF, RESPOND TO FAULTY VOLTAGE REGULATOR, REV. 1

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 at 100% power.
- The TSO has requested that Unit 1 raise generator voltage until reactive load is approximately 50 MVAR - DELIVERING.

INITIATING CUES:

- The SS directs you to adjust reactive loading per step 5.1.1 of C22.6, 1[2] Generator and Generator Transformer.

ED-4SF, RESPOND TO FAULTY VOLTAGE REGULATOR, REV. 1

JPM PERFORMANCE INFORMATION

Required Materials: **NONE**

General References: **C22.6, 1[2] GENERATOR & GENERATOR TRANSFORMER**
C22.6 AOP2, LOSS OF GENERATOR FIELD CURRENT

Task Standards: **Examinee raises generator voltage and transfers voltage control to manual by placing the voltage regulator in off.**

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:	**C22.6, step 5.1.1**
Critical Y	**A. Adjust generator voltage using CS-46377, GEN VOLT REG ADJ, to maintain the following:** • **Proper 345KV bus voltage** • **Desired reactive (deliver/receive) load**
Standard:	**Examinee raises reactive load using CS-46377.**
Evaluator Note:	**When examinee raises reactive load above 20 MVARs DELIVERING, AUTO TRIGGER 1 will insert causing a loss of the VR and associated alarms.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

ALTERNATE PATH STARTS HERE

ED-4SF, RESPOND TO FAULTY VOLTAGE REGULATOR, REV. 1

Performance Step:	**C47006-0307, step 1**
Critical Y	**IF generator did not trip, THEN perform the following:** **A. Transfer generator voltage control to MANUAL by placing CS-46368, GEN REGULATOR CONTROL, to OFF.**
Standard:	**Examinee places CS-46368 to OFF.**
Evaluator Note:	**Examinee may choose to go to C47006-0507 vice 0307. C47006-0507 will also have the examinee place VR in OFF.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**C47006-0307, step 1**
Critical N	**IF generator did not trip, THEN perform the following:** **B. Control generator voltage using CS-46366, GEN EXCITER BASE ADJ, per C22.6, GENERATOR AND MAIN TRANSFORMER.**
Standard:	**Examinee raises reactive load to ~50 MVARs delivering.**
Evaluator Cue:	**If examinee chooses not to adjust load pending troubleshooting and repair of VR, inform the examinee that the SS has directed reactive loading be raised ~50 MVARs delivering.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Terminating Cues: **When examinee raises generator voltage and transfers voltage control to manual by placing the voltage regulator in off, then this JPM is complete.**

Stop Time: _____

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- The TSO has requested that Unit 1 raise generator voltage until reactive load is approximately 50 MVAR - DELIVERING.

INITIATING CUES:

- The SS directs you to adjust reactive loading per step 5.1.1 of C22.6, 1[2] Generator and Generator Transformer.

Xcel Energy	JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **SECURE R11/12 IN CONTROL ROOM**

JPM NUMBER: **RM-5S** **REV.** **0**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **CRO 073 ATI 00 00 008 / REMOVE REDUNDANT RAD MONITORS FROM SERVICE**

K/A NUMBERS: **073 A4.02 (3.7/3.7)**

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [X] Other: [ ]

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:	**Shawn Sarrasin**	**1/18/2016**
	Developer	Date
Validated by:	**Justin Hasner**	**1/20/2016**
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Mike Petersen**	**3/25/2016**
	Training Supervisor	Date

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 and Unit 2 are at 100% power.
- R-11 and R-12 need to be removed from service for preventative maintenance.
- Steps 6.4.1 through 6.4.8.B of C11, Radiation Monitoring System, are complete.

INITIATING CUES:

- The Shift Supervisor directs you to remove 1R11/12 from service per section 6.4 of C11, Radiation Monitoring System.

JPM PERFORMANCE INFORMATION

Required Materials: Steps 6.4.1 through 6.4.8.B of C11 marked complete.
Key 167 for the Control Room RAM 606.

General References: C11, RADIATION MONITORING SYSTEM

Task Standards: Examinee changes R11/R12 pump status to OFF.

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:	**C11 step 6.4.8.C.1**
Critical N	**Place the Control Room RAM606 key switch in the "KEYPAD" position.**
Standard:	**Examinee places the RAM606 key switch in the "KEYPAD" position.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:	**C11 step 6.4.8.C.2**
Critical N	**Depress the up arrow to select Channel 1R-11 ~~[2R-11]~~ on the RAM606 display.**
Standard:	**Examinee selects 1R-11 on the RAM606 display.**
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	_____

Performance Step:	**C11 step 6.4.8.C.3**
Critical N	**Check the Pump Status "ON" indicated on the lower line of the single channel rate display.**
Standard:	**Examinee identifies that the pump status is "on."**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**C11 step 6.4.8.C.4**
Critical N	**Depress the up arrow twice to return to the dual rate display.**
Standard:	**Examinee returns to the dual rate display.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**C11 step 6.4.8.C.5**
Critical Y	**Depress MODE once. The Pump Status Display will be shown.**
Standard:	**Examinee navigates to Pump Status Display.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**C11 step 6.4.8.C.6**
Critical Y	**Depress SET to enter the pump status change subroutine.**
Standard:	**Examinee enters the pumps statue change subroutine.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**C11 step 6.4.8.C.7**
Critical Y	**Depress the Up arrow to select pump status to OFF.**
Standard:	**Examinee selects pump status to OFF.**
Evaluator Cue:	**Inform the examinee that any Control Room alarms will be addressed by another Operator.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**C11 step 6.4.8.C.8**
Critical Y	**Depress SET to accept the pump status change.**
Standard:	**Examinee accepts pump status change.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**C11 step 6.4.8.C.9**
Critical N	**Depress MODE once to return to the dual rate display.**
Standard:	**Examinee returns to the dual rate display.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**C11 step 6.4.8.C.10**
Critical N	**Depress the up arrow to select Channel 1R-11 ~~[2R-11]~~ on the RAM606 display.**
Standard:	**Examinee selects 1R-11 on the RAM606 display.**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**C11 step 6.4.8.C.11**
Critical N	**Verify the Pump Status OFF in the lower line display.**
Standard:	**Examinee identifies that the pump status is "off."**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Performance Step:	**C11 step 6.4.8.D**
Critical N	**Place the Control Room RAM606 key switch in the "OFF" position.**
Standard:	**Examinee places the RAM606 key in "OFF."**
Performance:	**SATISFACTORY ☐ UNSATISFACTORY ☐**
Comments:	_____

Terminating Cues: **When the examinee has changed R11/R12 pump status to OFF, then this JPM is complete.**

Stop Time: _____

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 and Unit 2 are at 100% power.
- R-11 and R-12 need to be removed from service for preventative maintenance.
- Steps 6.4.1 through 6.4.8.B of C11, Radiation Monitoring System, are complete.

INITIATING CUES:

- The Shift Supervisor directs you to remove 1R11/12 from service per section 6.4 of C11, Radiation Monitoring System.

Xcel Energy | JOB PERFORMANCE MEASURE (JPM)

SITE: **PRAIRIE ISLAND**

JPM TITLE: **ALIGN SCREENWASH PUMP TO FIRE HEADER**

JPM NUMBER: **FP-7S** **REV.** **0**

RELATED PRA INFORMATION: **NONE**

TASK NUMBERS / TASK TITLE(S): **CRO 086 ATI 00 00 005 / STARTUP SCREEN WASH PUMP TO FIRE PROTECTION**

K/A NUMBERS: **086 A2.02 (3.0/3.3)**

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: **6** 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:	**Shawn Sarrasin**	**1/18/2016**
	Developer	Date
Validated by:	**Justin Hasner**	**1/20/2016**
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	**Mike Petersen**	**3/25/2016**
	Training Supervisor	Date

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 at 100% power.
- 121 Motor Driven Fire Pump is out of service.
- 122 Diesel Fire Pump is out of service.
- 47022-0307, FIRE HEADER (121 FIRE PUMP AUTO START) LO PRESS, is in ALARM.
- Steps 5.5.1.A and 5.5.1.B of C31, Fire Protection & Detection Systems, are complete.

INITIATING CUES:

- The Shift Supervisor directs you to align the Screenwash Pump to the fire protection header per section 5.5.1 of C31, Fire Protection & Detection Systems.

FP-7S, ALIGN SCREENWASH PUMP TO FIRE HEADER, REV 0

JPM PERFORMANCE INFORMATION

Required Materials: C31, FIRE PROTECTION & DETECTION SYSTEM; no markup required.

General References: C31, FIRE PROTECTION & DETECTION SYSTEMS

Task Standards: Examinee establishes flow from the Screenwash Pump to the fire protection header.

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:	C31, step 5.5.1.C.
Critical Y	OPEN CV-31055, 121 SCRN WSH PMP DISCH TO FIRE PROT, using CS-46043.
Standard:	Examinee opens CV-31055.
Evaluator Cue:	If examinee requests to review the checklist from step 5.5.1.A, inform them that the checklist is completed correctly.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step:	C31, step 5.5.1.D.
Critical Y	Start 121 Screenwash Pump using CS-46466.
Standard:	Examinee starts 121 Screenwash pump using CS-46466.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Terminating Cues: When the examinee establishes flow from the Screenwash Pump to the fire protection header, then this JPM is complete.

Stop Time: _____

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- 121 Motor Driven Fire Pump is out of service.
- 122 Diesel Fire Pump is out of service.
- 47022-0307, FIRE HEADER (121 FIRE PUMP AUTO START) LO PRESS, is in ALARM.
- Steps 5.5.1.A and 5.5.1.B of C31, Fire Protection & Detection Systems, are complete.

INITIATING CUES:

- The Shift Supervisor directs you to align the Screenwash Pump to the fire protection header per section 5.5.1 of C31, Fire Protection & Detection Systems.