? Xcel Energy	JOB PERFORMANCE MEASURE (JPM)			
SITE:	PRAIRIE ISLAND			
JPM TITLE:	ISSUE UPDATED PAR BAS	SED ON WIND CHANGE		
JPM NUMBER:	ADMIN-39	REV. 3		
RELATED PRA INFORMATION:	None			
TASK NUMBERS / TASK TITLE(S):	SS 344.023.03.03			
K/A NUMBERS:	2.4.44			
APPLICABLE METHOD	OF TESTING:			
	Discussion:	Simulate/walkthrough: Perform:)	
EVALUATION LOCATION	I: In-Plant:	Control Room:		
	Simulator:	Other: X		
	Lab:			
Time for Completic	n: <u>15</u> Minutes	Time Critical: YES		
Alternate Path:	NO			
TASK APPLICABILITY: Additional site-specific sig	SRO: X RO: [natures may be added as des	NLO sired.		
		10/05/40		
Developed by:	Developer	12/25/10 Date		
Validated by:	John DuBose	12/25/10	_	
	Validator (See JPM Validation Checklist	t, Attachment 1)		
Approved by:	Training Quage is	por Doto	_	

ADMIN-39, Issue Updated PAR Based on Wind Change, Rev 2

Page 2 of 7	7
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JPM Number:	ADMIN-39				
JPM Title:	Issue Updated PAR	Based on Wind Ch	ange		
Examinee:			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.

ADMIN-39, Issue Updated PAR Based on Wind Change, Rev 2

JPM BRIEFING/TURNOVER

Use NUREG-1021, Appendix E, for JPM Briefing

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.

PERFORM THE FOLLOWING WHEN BRIEFING THE CANDIDATE

- 1) Provide candidate the following:
 - a. Initial Conditions turnover sheet ONLY (Page 1 of 2).
 - b. PINGP 577, Initial Emergency Notification Report Form (EAL HG2.1).
 - c. PINGP 1125, Control Room Shift Manger/Shift Supervisor Emergency Director Checklist.
 - d. Allow candidate several minutes to review paperwork.
- 2) When candidate has completed reviewing the initial condition information:
 - a. Inform candidate that this JPM is TIME CRITICAL.
 - b. Provide candidate Initiating Cues turnover sheet (Page 2 of 2).
 - c. Start timing.

INITIAL CONDITIONS:

- A magnitude 9.5 earthquake occurred at 0655 this morning.
- Unit 1 Containment has partially collapsed and the RCS has been breached.
- A General Emergency was declared based on EAL HG2.1 (review attached copy of PINPG 577).
- Bridge collapses, rockslides and damaged roadways have prevented travel in the area and the site Emergency Centers are NOT operational yet.
- You are the Emergency Director.
- PINGP-1125 Control Room Shift Manager/Shift Supervisor Emergency Director Checklist for a GENERAL EMERGENCY has been completed through Step 17.

INITIATING CUES:

- A cold front has moved through.
- Current meteorological conditions are:
 - Wind 10 mph from 015 degrees.
 - Stability class E
 - Temperature 75°F
- Evaluate current conditions and approve an updated PINGP 577.
- This JPM is time critical. The clock stops when you return the PINGP 577 to me as the Shift Emergency Communicator.

Retention: Life of Plant Retain in: Training Record Form retained in accordance with record retention schedule identified in FP-G-RM-01. ADMIN-39, Issue Updated PAR Based on Wind Change, Rev 2

JPM PERFORMANCE INFORMATION

Required Materials:	F3-2, F3-8
	PINGP-577 (have extra copies available)
	PINGP-1125 (general emergency section signed through step 17)
	PINGP-577 (Completed for the initial event)
General References:	PINGP-1125
Task Standards:	Completed 577 returned for signature with correct PAR
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 Regualification Program Examinations.

Performance Step: 1 Critical Y	Complete a PINGP-577 with the following boxes/information: 2- Drill/Exercise (B) circled (site policy is to circle (b) unless it is an actual plant emergency) 4- Classification is (D) General Emergency (circled) 6- Release status is (B) Occurring (circled) 7- Type of release is (B) Airborne (circled) 11- "None" and or "PAR Change" per note SEE ATTACHED COMPLETED PINGP 577 KEY
Standard:	Information circled or written.
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌

·	ADMIN-39, Issue Updated PAR Based on Wind Change, Rev 2
Performance Step: Critical Y	Following boxes completed for updating PAR: 1- Reason for call (C) PAR change (circled) 5- (B) PAR change (circled) with current date and time entered 8- Wind direction from 015°, downwind sectors HJKLM (circled) 9- Wind speed 10 mph, stability class E circled 10- PAR (B) circled, shelter (circled) ALL sectors to 2 miles, shelter (circled) sectors CDEFGHJKLM out to 5 miles. Circle subareas 2, 5N, 5E, 5S, 5W. In clarifying notes section; write wind direction change added new sectors and subareas (something to that affect). It is Not critical to fill in the clarifying notes section.
Standard:	Sheltering recommended for all sectors out to 2 miles and sectors C-M out to 5 miles AND PINGP 577 presented for signature within 15 minutes of receiving updated meteorological data. SEE ATTACHED COMPLETED PINGP 577 KEY
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌
Comments:	

Terminating Cues: When candidate completes the PINGP 577 form and returns it to the SS.

Stop Time:

TURNOVER SHEET

Page 1 of 2

INITIAL CONDITIONS:

- A magnitude 9.5 earthquake occurred at 0655 this morning.
- Unit 1 Containment has partially collapsed and the RCS has been breached.
- A General Emergency was declared based on EAL HG2.1 (review attached copy of PINPG 577).
- Bridge collapses, rockslides and damaged roadways have prevented travel in the area and the site Emergency Centers are NOT operational yet.
- You are the Emergency Director.
- PINGP-1125 Control Room Shift Manager/Shift Supervisor Emergency Director Checklist for a GENERAL EMERGENCY has been completed through Step 17.
- You have 3 minutes to review the initial data.

TURNOVER SHEET

Page 2 of 2

INITIATING CUES (IF APPLICABLE):

- A cold front has moved through. Current meteorological conditions are:
- Wind 10 mph from 015 degrees.
- Stability class E
- Temperature 75°F
- Evaluate current conditions and approve an updated PINGP 577.
- This JPM is time critical. The clock stops when you return the PINGP 577 to me as the Shift Emergency Communicator.

ADMIN-39, Issue PAR Based on Wind Change, 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.

REV	IEW 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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

? Xcel Energy [*]	JOB PERFORMANCE MEASURE (JPM)			
SITE:	PRAIRIE ISLAND			
JPM TITLE:	DETERMINE THE TIME T OPERATIONS	O BOILING DU	IRING REDUCED IN	VENTORY
JPM NUMBER:	ADMIN-43	REV.	1	
RELATED PRA INFORMATION:	None			
TASK NUMBERS / TASK TITLE(S):	CRO 005 ATI 00 00 010 /	DETERMINE TI	IME TO BOILING	
K/A NUMBERS:	2.1.25 (3.9/4.2)			
APPLICABLE METHOD C	OF TESTING:			
	Discussion:	Simulate/walkt	hrough:	Perform: X
EVALUATION LOCATION	I: In-Plant:	Co	ntrol Room:	
	Simulator:	Oth	ner:	X
	Lab:			
Time for Completio	n: <u>8</u> Minutes	Т	Time Critical: N	0
Alternate Path:	NO			
TASK APPLICABILITY:	SRO: X RO:	X NLO		
Additional site-specific sig	natures may be added as d	lesired.		
Developed by:	Mike Fish		11/17	/09
	Developer		Dat	e
Validated by:	John DuBos	se	12/18	/09
	Validator See JPM Validation Checkl	ist, Attachment	Dat	e
Approved by:	Training Supar	visor		0
	riaining Super	000	Dal	C

ADMIN-43, Determine the Time to Boiling During Reduced Inventory Operations, Rev 1

JPM Number:	ADMIN-43
JPM Title:	DETERMINE THE TIME TO BOILING DURING REDUCED INVENTORY OPERATIONS
Examinee:	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.

ADMIN-43, Determine the Time to Boiling During Reduced Inventory Operations, Rev 1

JPM BRIEFING/TURNOVER

Use NUREG-1021, Appendix E, for JPM Briefing

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:

- RCS Temperature is 105°F.
- It is November 19, 2009 at 2000.
- Unit 2 is in a refueling outage.
- During the shutdown, the Unit 2 Reactor was manually tripped on November 14 at 2000.
- Inventory Integrity is set.
- The crew is implementing 2C1.6, Shutdown Operations Unit 2.
- Reactor Vessel level is 1 foot below the Reactor Vessel Flange.
- Maintenance has requested to have both doors of the personnel airlock open to move equipment. During the equipment movement, it will take 20 minutes to close the airlock.

INITIATING CUES:

- The Unit 2 SS directs you to:
 - Determine a current Time To Boiling in accordance with step 5.2.3 of 2C1.6, Shutdown Operations Unit 2.
 - Determine if Maintenance will be allowed to move equipment in accordance with C19.10, Containment Airlock Door Control At Shutdown, Limitation 4.3.

ADMIN-43, Determine the Time to Boiling During Reduced Inventory Operations, Rev 1

JPM PERFORMANCE INFORMATION

Required Materials:	2C1.6, Shutdown Operations – Unit 2, page 7.
	Figure C1-32.
	C19.10
General References:	2C1.6, Shutdown Operations – Unit 2
	Figure C1-32.
	C19.10
Task Standards:	Determine time to boiling. Do NOT allow maintenance to move equipment.

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 Regualification Program Examinations.

Performance Step: Critical <u>Y</u>	2C1.6, SHUTDOWN OPERATIONS –UNIT 2 Step 5.2.3 Determine the time to boiling from Figure C1-32 or Nuclear Engineer, if necessary
Standard:	Calculate time after trip using initial conditions provided. Time between November 14 at 2000 and November 19 at 2000 is 120 hours.
	Determines time to boiling to be 13.5 to 14.5 minutes.
Evaluator Note:	If candidate request support from Nuclear Engineer, inform candidate no engineers are available.
Performance:	
Comments:	

Performance Step:	C19.10, CONTAINMENT AIRLOCK DOOR CONTROL AT SHUTDOWN
	If inventory Integrity is required, THEN at least one (1) door in each containment airlock SHALL be operable and capable of being CLOSED under the control provided in this procedure prior to the Time to boiling or four (4) hours, whichever is less.
Standard:	Report that time to boiling is 13.5 -14.5 minutes and airlock equipment closure is 20 minutes, thus Maintenance will NOT be allowed to move equipment.
Evaluator Note:	None
Performance: Comments:	
Terminating Cues: White Shore	nen candidate informs the SS of the current time to boiling, and that Maintenance buld not be allowed to move equipment. This JPM is complete.

Stop Time:	
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TURNOVER SHEET

INITIAL CONDITIONS:

- RCS Temperature is 105°F.
- It is November 19, 2009 at 2000.
- Unit 2 is in a refueling outage.
- During the shutdown, the Unit 2 Reactor was manually tripped on November 14 at 2000.
- Inventory Integrity is set.
- The crew is implementing 2C1.6, Shutdown Operations Unit 2.
- Reactor Vessel level is 1 foot below the Reactor Vessel Flange.
- Maintenance has requested to have both doors of the personnel airlock open to move equipment. During the equipment movement, it will take 20 minutes to close the airlock.

INITIATING CUES:

- The Unit 2 SS directs you to:
 - Determine a current Time To Boiling in accordance with step 5.2.3 of 2C1.6, Shutdown Operations Unit 2.
 - Determine if Maintenance will be allowed to move equipment in accordance with C19.10, Containment Airlock Door Control At Shutdown, Limitation 4.3.

ADMIN-43, Determine the Time to Boiling During Reduced Inventory Operations, 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			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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

? Xcel Energy	JOB PERFORMANCE MEASURE (JPM)		
SITE:	PRAIRIE ISLAND		
JPM TITLE:	RCS / STEAM GENERATOR TEMPERATURE VERIF	FICATION	
JPM NUMBER:	ADMIN-48 REV. 1		
RELATED PRA INFORMATION:	None		
TASK NUMBERS / TASK TITLE(S):	CRO 002 011 01 01 000 / HEATUP THE REACTOR 0	COOLANT SYSTEM	
K/A NUMBERS:	2.1.20 (4.6/4.6)		
APPLICABLE METHOD C	F TESTING:		
	Discussion: Simulate/walkthrough:	Perform: X	
EVALUATION LOCATION	In-Plant: Control Room:		
	Simulator: Other:	X	
	Lab:		
Time for Completion	n: <u>12</u> Minutes Time Critical:	NO	
Alternate Path:	NO		
TASK APPLICABILITY:	SRO: X RO: X NLO		
Additional site-specific sig	natures may be added as desired.		
Developed by:	Mike Fish	11/17/09	
	Developer	Date	
Validated by:	John DuBose	12/18/09	
(Validator See JPM Validation Checklist, Attachment 1)	Date	
Approved buy			
Approved by:	Training Supervisor	Date	

JPM Number:	ADMIN-48
JPM Title:	RCS / STEAM GENERATOR TEMPERATURE VERIFICATION
Examinee:	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.

JPM BRIEFING/TURNOVER

Use NUREG-1021, Appendix E, for JPM Briefing

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 completing a refueling outage.
- Preparations are being made to start the FIRST Reactor Coolant Pump.

INITIATING CUES:

• The Shift Supervisor directs you to complete Step 5.1.16 and Step 5.1.17 of 1C1.2, Unit 1 Startup Procedure.

JPM PERFORMANCE INFORMATION

Required Materials:	1C1.2, Unit 1 Startup Procedure, pages 22-23 Calculator
General References:	1C1.2, Unit 1 Startup Procedure
Task Standards:	Determine the SG to RCS temperature difference is 52°F and determine that the limiting SG to RCS temperature difference of 50°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 <u>N</u>	 1C1.2, UNIT 1 STARTUP PROCEDURE Step 5.1.16 Verify the secondary water temperature of each SG is less than 50°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:	 Steam Generator Skin Temperatures are recorded as follows: 12413, 11 SG SKIN TI = 142°F 12414, 12 SG SKIN TI = 147°F
Evaluator Cue:	When directed, as an extra operator, OCC staff member or other appropriate person to collect SG skin temperatures, provide the examinee with the following: 12413, 11 SG SKIN TI = $142^{\circ}F$ 12414, 12 SG SKIN TI = $147^{\circ}F$
Performance: Comments:	

Performance Step: Critical <u>N</u>	Step 5.1.16 B. Record RCS cold leg temperatures:
	 1T0406A, U1 RCS LOOP A COLD LEG TEMP 1T0426A, U1 RCS LOOP B COLD LEG TEMP
Standard.	RCS Cold Leg Temperatures are recorded as follows:
Standard.	 1T0406A, U1 RCS LOOP A COLD LEG TEMP = 95°F 1T0426A, U1 RCS LOOP B COLD LEG TEMP = 99°F
Evaluator Cue:	When examinee has demonstrated the ability to locate an appropriate ERCS display screen provide the examinee with the following: 1T0406A, U1 RCS LOOP A COLD LEG TEMP = 95°F 1T0426A, U1 RCS LOOP B COLD LEG TEMP = 99°F
Performance:	
Comments:	

Performance Step: Critical <u>Y</u>	 Step 5.1.16 C. Determine the limiting SG to RCS temperature difference by subtracting the lowest RCS cold leg temperature from the highest SG skin temperature:
Standard:	Subtracts $147^{\circ}F - 95^{\circ}F = 52^{\circ}F$
Evaluator Cue:	None
Performance: Comments:	

Performance Step: Critical Y	Step 5.1.16 D. Verify the limiting SG to RCS temperature difference is less than 50°F
Standard:	GREATER than 50°F and step (D) cannot be met.
Evaluator Cue:	As the Shift Supervisor, acknowledge that step (D) cannot be met, and direct the examinee to complete step 5.1.17.
Performance:	
Comments:	
Porformance Stone	Stop 5 1 17
Performance Step: Critical <u>N</u>	Step 5.1.17 Verify both SG skin temperatures recorded in Step 5.1.16A are greater than 88°F.
Performance Step: Critical <u>N</u> Standard:	Step 5.1.17 Verify both SG skin temperatures recorded in Step 5.1.16A are greater than 88°F. Determine that both SG skin temperatures are greater than 88°F.
Performance Step: Critical <u>N</u> Standard: Evaluator Cue:	Step 5.1.17 Verify both SG skin temperatures recorded in Step 5.1.16A are greater than 88°F. Determine that both SG skin temperatures are greater than 88°F. None
Performance Step: Critical <u>N</u> Standard: Evaluator Cue:	Step 5.1.17 Verify both SG skin temperatures recorded in Step 5.1.16A are greater than 88°F. Determine that both SG skin temperatures are greater than 88°F. None
Performance Step: Critical <u>N</u> Standard: Evaluator Cue: Performance:	Step 5.1.17 Verify both SG skin temperatures recorded in Step 5.1.16A are greater than 88°F. Determine that both SG skin temperatures are greater than 88°F. None SATISFACTORY
Performance Step: Critical <u>N</u> Standard: Evaluator Cue: Performance: Comments:	Step 5.1.17 Verify both SG skin temperatures recorded in Step 5.1.16A are greater than 88°F. Determine that both SG skin temperatures are greater than 88°F. None SATISFACTORY

Terminating Cues: When candidate has completed step 5.1.17, inform the examinee that the JPM is complete.

Stop Time:

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is completing a refueling outage.
- Preparations are being made to start the FIRST Reactor Coolant Pump.

INITIATING CUES:

• The Shift Supervisor directs you to complete Step 5.1.16 and Step 5.1.17 of 1C1.2, Unit 1 Startup Procedure.

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REV	IEW 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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

With Contract Contra	JOB PERFORMANCE	MEASURE (JPM)	
SITE:	PRAIRIE ISLAND		
JPM TITLE:	APPROVE A CLEARANCE C	RDER	
JPM NUMBER:	ADMIN-61	REV. 0	
RELATED PRA INFORMATION:	None		
TASK NUMBERS / TASK TITLE(S):	CRO 119 021 01 01 000 / AP	PROVE A CLEARANCE (DRDER
K/A NUMBERS:	2.2.13 (4.1/4.3)		
APPLICABLE METHOD O	F TESTING:		
	Discussion: Sir	nulate/walkthrough:	Perform: X
EVALUATION LOCATION	In-Plant:	Control Room:	
	Simulator:	Other:	X
	Lab:		
Time for Completion	n: <u>14</u> Minutes	Time Critical:	NO
Alternate Path:	NO		
TASK APPLICABILITY:	SRO: X RO: X		
Additional site-specific sign	atures may be added as desi	red.	
Developed by:	Gerry Gore		1/4/10
	Developer		Date
Validated by:	Mike Fish		1/6/10
(Validator See JPM Validation Checklist, .	Attachment 1)	Date
Approved by:	Training Superviso	r	Date
1		•	Duit

JPM Number:	ADMIN-61		
JPM Title:	APPROVE A CLEARANCE ORDER		
Examinee:		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.

JPM BRIEFING/TURNOVER

Use NUREG-1021, Appendix E, for JPM Briefing

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:

- 12 Component Cooling Water pump is OOS and T.S. LCO 3.7.7 Condition A has been entered.
- Maintenance has requested an isolation of 12 Component Cooling Water Pump to fix an oil leak on the motor outboard bearing.
- A clearance order has been prepared and is ready to be approved.
- PASSPORT tagging system is OOS. Clearance was prepared using QF-1109, Paper Based Tagging Form.

INITIATING CUES :

- The Shift Supervisor has directed you to verify the clearance order per FP-OP-TAG-01 Step 5.4.2.3.
- Report any discrepancies to the Shift Supervisor.

JPM PERFORMANCE INFORMATION

Required Materials:	QF-1109(marked up), NF-39245-1, NF-40022-1, FP-OP-TAG-01,
General References:	FP-OP-TAG-01, FG-OP-TAG-01
Task Standards:	Determines that CC-1-14 should be CC-1-4 and BKR 16-5 should be in disconnect.

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 <u>Y</u>	FP-OP-TAG-01 Section 5.4 Approving a Clearance Order/Clearance Order Checklist Refer to Attachment 1, Clearance Order Development
Standard:	Determine that CC-1-14 should be CC-1-4
Cue:	If candidate informs evaluator that it is NOT possible to verify all the component information. Inform the candidate to verify all the information possible on the provided tagging form with the references provided.
Performance:	
Comments:	

	· ·
Performance Step: Critical <u>Y</u>	FP-OP-TAG-01 Section 5.4 Approving a Clearance Order/Clearance Order Checklist Refer to Attachment 1, Clearance Order Development
Standard:	Determine that BKR 16-5 should be in DISCONNECT, not connect.
Cue:	If candidate informs evaluator that it is NOT possible to verify all the component information. Inform the candidate to verify all the information possible on the provided tagging form with the references provided.
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌
Comments:	

Terminating Cues: When the candidate reports the two errors in the clearance order, this JPM is complete.

Stop Time:

Historical Record:

FP-OP-TAG-01 Fleet Tagging procedure defines an "Approver" as : Operations Shift Supervision or licensed individual and Craft Supervisor/Lead responsible for an independent review of the Clearance Order.

TURNOVER SHEET

INITIAL CONDITIONS:

- 12 Component Cooling Water pump is OOS and T.S. LCO 3.7.7 Condition A has been entered.
- Maintenance has requested an isolation of 12 Component Cooling Water Pump to fix an oil leak on the motor outboard bearing.
- A clearance order has been prepared and is ready to be approved.
- PASSPORT tagging system is OOS. Clearance was prepared using QF-1109, Paper Based Tagging Form.

INITIATING CUES :

- The Shift Supervisor has directed you to verify the clearance order per FP-OP-TAG-01 Step 5.4.2.3.
- Report any discrepancies to the Shift Supervisor.

QF-1109 Rev 1 (FP-OP-TAG-01)



Paper Based Tagging Form

WORK AGAINST/PURPOSE OF TAGGING: <u>Isolate 12 Component Cooling Water</u> <u>Pump for work on the outboard motor bearing</u>

CLEARANCE ORDER # XYZ1234-1

CLEARANCE ORDER TYPE: WO (Work Order) 🛛 CC (Configuration Control) 🗌

WORK ORDER NUMBER (S): XYZ1234

NOTES:

Isolation of liquid side is to prevent auto rotation in addition to breaker.

HAZARDS:

Rotation of pump/motor shaft could entangle personnel

Oil spill may affect environment.

STORED ENERGY RELEASED VERIFIED BY:

QF-1075-01 Rev. 2 (FP-T-SAT-75)

Page 9 of 9

*The steps of the Clearance Order are the steps (that are hanging) of the checklist (s)

QF-1109 Rev 1 (FP-OP-TAG-01)



Paper Based Tagging Form

WORK AGAINST/PURPOSE OF TAGGING:

_Isolate 12 Component Cooling Water Pump for work on the outboard motor

bearing

CLEARANCE ORDER #: ______XYZ1234-1

WORK ORDER NUMBER (S): ______XYZ1234_____

HOLDER SIGN ON/OFF (use additional sheets as needed)

Page <u>1</u> of 1__

Holder Name	Sign On	Date/Time	Sign Off	Date/Time

Xcel Energy ^{**}			Paper B	ased Tagging	Form			
WORK AGAINST/PURPOSE OF TAGGINGIsolate 12 Component Cooling Water Pump for work on the outboard motor bearing								
CLEARA		ER CHECK	LIST #	XYZ1234-1				
CLEARA	NCE TYPE	: PC (PER	FORM CHE	ECKLIST) 🔀 FC (FINAL C				
PREPAR	RED BY:	Je	erry Smith		OPS APPROVED BY:			
HOLDEF	R APPROVI	ED BY:			DISTRIBUTED BY:			
STEP NO.	TAG NO.	TAG TYPE	ACTION	COMPONENT ID	COMPONENT DESCRIPTION	REQUIRED POSITION	STEP COMPLETE D BY	STEP VERIFIED BY
1	01	Caution Tag (Small)	Pull Out	CS-46037	12 CC PMP CS	PULL OUT		
2	02	Danger Tag	Rack Out	BKR 16-5	12 CC PMP	CONNECT		
3	03	Danger Tag	CLOSE	CC-1-14	12 CC PMP DISCH	CLOSE		
4	04	Danger Tag	CLOSE	CC-1-2	12 CC PUMP SUCT	CLOSE		
5	05	Danger Tag	CLOSE	CC-30-11	12 CC PMP RECIRC LINE	CLOSE		

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

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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

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:	VERIFICATION OF RADIATION WORK PERMIT LIMITS					
JPM NUMBER:	ADMIN-62 REV. 0					
RELATED PRA INFORMATION:	None					
TASK NUMBERS / TASK TITLE(S):	CRO 119 999 00 00 000					
K/A NUMBERS:	2.3.7 (3.5/3.6)					
APPLICABLE METHOD C	OF TESTING:					
	Discussion: Simulate/walkthrough:	X Perform:				
EVALUATION LOCATION	I: In-Plant: Control Ro	om:				
	Simulator: Other:	X				
	Lab:					
Time for Completion	n: <u>5</u> Minutes Time Crit	ical: <u>NO</u>				
Alternate Path:	NO					
TASK APPLICABILITY: SRO: X RO: X NLO X						
Additional site-specific sign	natures may be added as desired.					
Developed by:	Mike Fish	1/7/10				
	Developer	Date				
Validated by:	John DuBose	1/11/10				
	Validator (See JPM Validation Checklist. Attachment 1)	Date				
	(,					
Approved by:	Training Supervisor	Date				
k						

ADMIN-62, Verification of Radiation Work Permit Limits, Rev. 0

JPM Number:	ADMIN-62				
JPM Title:	Verification of Radiation Work Permit Limits				
Examinee:		Evaluato	or:		
Job Title:		Dat	te:		
Start Time		Finish Tir	ne		
PERFORMANCE	RESULTS: S	AT:	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.
ADMIN-62, Verification of Radiation Work Permit Limits, Rev. 0

JPM BRIEFING/TURNOVER

Use NUREG-1021, Appendix E, for JPM Briefing

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 extra operator and have been assigned to observe the stroking of CV-31203, Letdown Press Control valve in the Unit 1 Letdown Heat Exchanger Room Area.
- The expected job duration is 45 minutes.
- Your current year to date exposure is 1975 mrem.

- Determine if any dose limits will be exceeded prior to performing this task.
- Report your findings to the evaluator.

ADMIN-62, Verification of Radiation Work Permit Limits, Rev. 0

JPM PERFORMANCE INFORMATION

Required Materials:	TE-0236 Radiation Work Permit, RWP Number 1035 01.
	Unit 1 Letdown Heat Exchanger Room Supplemental Survey Record RP-111a.
	RCA Trip Ticket.
General References:	F2, RADIATION SAFETY.
	TE-0236 Radiation Work Permit, RWP Number 1035 01.
	Unit 1 Letdown Heat Exchanger Room Supplemental Survey Record RP-111a. RCA Trip Ticket.
Task Standards:	Determine that the RWP Dose limit and the workers Yearly Administrative
	Dose limit will be exceeded.
rask standards.	Dose limit will be 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.

ADMIN-62, Verification of Radiation Work Permit Limits, Rev. 0

Performance Step: Critical: <u>Y</u>	 F2, RADIATION SAFETY Section 3.5 Radiation Work Permit 3.5.2 Instructions and requirements in RWP's SHALL be followed by all personnel. 3.5.4 All personnel SHALL be aware of the requirements of the RWP covering their activity and be familiar with the radiological conditions for the area. Candidate will determine the following: RWP dose limit is 20 mrem. Unit 1 Letdown HX room area general dose near CV-31203 is 40 mrem/hr. Expected stay time of 45 minutes.
Standard:	Expected dose for the job 30 mrem. Determine the RWP dose limit of 20 mrem will be exceeded.
Evaluator Cue:	If candidate ONLY reports the RWP 20 mrem dose limit will be exceeded, inform the candidate that the RWP dose limits are revised to 40 mrem. Re-evaluate the information and determine if any dose limits will be exceeded.
Performance: Comments:	

Performance Step: Critical: <u>Y</u>	Candidate will determine the following: The Prairie Island yearly administrative dose limit is 2000 mrem. Your current year to date exposure is 1975 mrem. Expected dose for the job 30 mrem.
Standard:	Determines that the expected dose of 30 mrem will cause the 2000 mrem yearly limit to be exceeded.
Evaluator Cue:	If candidate ONLY reports the yearly administrative dose limit will be exceeded, inform the candidate that their yearly administrative dose limit has been raised to 2025 mrem. Re-evaluate the information and determine if any dose limits will be exceeded.
Performance: Comments:	SATISFACTORY UNSATISFACTORY

Terminating Cues: Candidate has determine that the RWP Dose limit and the workers Yearly Administrative Dose limit will be exceeded and reports findings to evaluator.

Stop Time:

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the extra operator and have been assigned to observe the stroking of CV-31203, Letdown Press Control valve in the Unit 1 Letdown Heat Exchanger Room Area.
- The expected job duration is 45 minutes.
- Your current year to date exposure is 1975 mrem.

- Determine if any dose limits will be exceeded prior to performing this task.
- Report your findings to the evaluator.

ADMIN-62, Verification of Radiation Work Permit Limits, Rev. 0 ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REVIEW STATEMENTS			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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

? Xcel Energy	JOB PERFORMANCE MEASURE (JPM)	
SITE:	PRAIRIE ISLAND	
JPM TITLE:	VERIFY TIME TO BOILING DETERMINATION DUP OPERATIONS	RING REDUCED INVENTORY
JPM NUMBER:	ADMIN-63 REV. 0	
RELATED PRA INFORMATION:	None	
TASK NUMBERS / TASK TITLE(S):	CRO 005 ATI 00 00 010 / DETERMINE TIME TO	D BOILING
K/A NUMBERS:	2.1.25 (3.9/4.2)	
APPLICABLE METHOD O	F TESTING:	
EVALUATION LOCATION	Discussion: Simulate/walkthrough In-Plant: Control R Simulator: Other:	: Perform: D oom:
Time for Completior	Lab: ::8 Minutes Time C	ritical: <u>NO</u>
Alternate Path: TASK APPLICABILITY:	<u>NO</u> SRO: X RO: NLO	
Additional site-specific sign	atures may be added as desired.	
Developed by:	Mike Fish Developer	1/7/10 Date
Validated by:	John DuBose Validator See JPM Validation Checklist, Attachment 1)	1/7/10 Date
Approved by:	Training Supervisor	Date

ADMIN-63, Verify Time to Boiling Determination During Reduced Inventory Operations, Rev 0

JPM Number:	ADMIN-63
JPM Title:	VERIFY TIME TO BOILING DETERMINATION DURING REDUCED INVENTORY OPERATIONS
Examinee:	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.

ADMIN-63, Verify Time to Boiling Determination During Reduced Inventory Operations, Rev 0

JPM BRIEFING/TURNOVER

Use NUREG-1021, Appendix E, for JPM Briefing

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:

- It is November 19, 2009 at 0400.
- Unit 2 is in a refueling outage.
- During the shutdown, the Unit 2 Reactor was manually tripped on November 8th at 0800.
- Inventory Integrity is set.
- The crew is implementing 2C1.6, Shutdown Operations Unit 2.
- Reactor Vessel level is 1 foot below the Reactor Vessel Flange.
- Maintenance has requested to have both doors of the personnel airlock open to move equipment. During the equipment movement, it will take 20 minutes to close the airlock.
- The Reactor Operator has determined the current Time To Boiling is 21 minutes in accordance with step 5.2.3 of 2C1.6, Shutdown Operations Unit 2.
- The Reactor Operator also determined that Maintenance will be allowed to move equipment in accordance with C19.10, Containment Airlock Door Control At Shutdown, Limitation 4.3. due to the time to boiling is greater than 20 minutes.

- Review and verify the time to boiling determination and ensure C19.10 Limitation 4.3 is assessed correctly.
- Report your findings to the evaluator.

ADMIN-63, Verify Time to Boiling Determination During Reduced Inventory Operations, Rev 0

JPM PERFORMANCE INFORMATION

Required Materials:	2C1.6, Shutdown Operations – Unit 2, page 7. Figure C1-32, Boiling Curve.
	C19.10, Containment Airlock Door Control At Shutdown, Page 6. See JPM setup information on page 7.
General References:	2C1.6, Shutdown Operations – Unit 2 Figure C1-32. C19.10
Task Standards:	Determine time to boiling calculation was incorrect and maintenance is NOT allowed to move equipment through the personnel airlock per Figure C1-32 and C19.10.

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.

2C1.6, SHUTDOWN OPERATIONS –UNIT 2 Step 5.2.3
Calculate time after trip using initial conditions provided. Time between November 11 at 0800 and November 19 at 0400 is 260 hours.
Determines time to boiling to be 18.8 to 19.5 minutes.
If candidate request support from Nuclear Engineer, inform candidate no engineers are available.

Performance Step: Critical <u>Y</u>	C19.10, CONTAINMENT AIRLOCK DOOR CONTROL AT SHUTDOWN Limitation 4.3 If inventory Integrity is required, THEN at least one (1) door in each containment airlock SHALL be operable and capable of being CLOSED under the control provided in this procedure prior to the Time to boiling or 4 (4) hours, whichever is less.
Standard:	Report that time to boiling is 18.8 to 19.5 minutes and airlock equipment closure is 20 minutes, thus Maintenance will NOT be allowed to move equipment
Evaluator Note:	None
Performance: Comments:	
Terminating Cues:	Determines time to boiling calculation was incorrect and maintenance is NOT allowed to move equipment through the personnel airlock.

Stop Time:

TURNOVER SHEET

INITIAL CONDITIONS:

- It is November 19, 2009 at 0400.
- Unit 2 is in a refueling outage.
- During the shutdown, the Unit 2 Reactor was manually tripped on November 8th at 0800.
- Inventory Integrity is set.
- The crew is implementing 2C1.6, Shutdown Operations Unit 2.
- Reactor Vessel level is 1 foot below the Reactor Vessel Flange.
- Maintenance has requested to have both doors of the personnel airlock open to move equipment. During the equipment movement, it will take 20 minutes to close the airlock.
- The Reactor Operator has determined the current Time To Boiling is 21 minutes in accordance with step 5.2.3 of 2C1.6, Shutdown Operations Unit 2.
- The Reactor Operator also determined that Maintenance will be allowed to move equipment in accordance with C19.10, Containment Airlock Door Control At Shutdown, Limitation 4.3. due to the time to boiling is greater than 20 minutes.

- Review and verify the time to boiling determination and ensure C19.10 Limitation 4.3 is assessed correctly.
- Report your findings to the evaluator.

ADMIN-63, Verify Time to Boiling Determination During Reduced Inventory Operations, Rev 0

JPM Setup:

- Copy the following procedures
 - o 2C1.6, Shutdown Operations Unit 2, page 7.
 - Figure C1-32, Boiling Curve.
 - o C19.10, Containment Airlock Door Control At Shutdown, Page 6.
- Markup 2C1.6 page 7 as follows
 - o Step 5.1.9 NA
 - o Step 5.2.1 initial.
 - o Step 5.2.2 initial.
 - \circ Step 5.2.3 21 min and initial.

ADMIN-63, Verify Time to Boiling Determination During Reduced Inventory Operations, Rev 0

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REVIEW STATEMENTS			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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

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:	VERIFY RCS / STEAM GENERATOR TEMPERATU	RE DETERMINATION	
JPM NUMBER:	ADMIN -64 REV. 0		
RELATED PRA INFORMATION:	None		
TASK NUMBERS / TASK TITLE(S):	CRO 002 011 01 01 000 / HEATUP THE REACTOR COOLANT SYSTEM		
K/A NUMBERS:	2.1.20 (4.6/4.6)		
APPLICABLE METHOD O	F TESTING:		
	Discussion: Simulate/walkthrough:	Perform:	
EVALUATION LOCATION	In-Plant: Control Room	:	
	Simulator: Other:	X	
	Lab:		
Time for Completion	n: <u>7</u> Minutes Time Critica	I: <u>NO</u>	
Alternate Path:	NO		
TASK APPLICABILITY:	SRO: X RO: NLO		
Additional site-specific sigr	atures may be added as desired.		
Developed by:	Mike Fish	1/7/10	
	Developer	Date	
Validated by:	John DuBose	1/11/10	
(Validator Date (See JPM Validation Checklist. Attachment 1)		
Approved by:	Training Supervisor	Date	

ADMIN-64, VERIFY RCS / STEAM GENERATOR TEMPERATURE DETERMINATION, REV 0

PERFORMANCE	RESULTS: SAT: UNSAT:
Start Time	Finish Time
Job Title:	Date:
Examinee:	Evaluator:
JPM Title:	VERIFY RCS /STEAM GENERATOR TEMPERATURE DETERMINATION
JPM Number:	ADMIN-64

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.

ADMIN-64, VERIFY RCS / STEAM GENERATOR TEMPERATURE DETERMINATION, REV 0

JPM BRIEFING/TURNOVER

Use NUREG-1021, Appendix E, for JPM Briefing

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 completing a refueling outage.
- Preparations are being made to start the FIRST Reactor Coolant Pump.
- The Reactor Operator has completed Step 5.1.16 and Step 5.1.17 of 1C1.2, Unit 1 Startup Procedure.

- Review and verify the data is correct.
- Report any findings to the evaluator.

ADMIN-64, VERIFY RCS / STEAM GENERATOR TEMPERATURE DETERMINATION, REV 0

JPM PERFORMANCE INFORMATION

Required Materials:	1C1.2, Unit 1 Startup Procedure, pages 22-23.	
	See JPM setup information on page 9.	
	Calculator	
General References:	1C1.2, Unit 1 Startup Procedure	
Task Standards:	Determine the SG to RCS temperature difference is 51°F and determine that the limiting SG to RCS temperature difference of 50°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:	1C1.2, UNIT 1 STARTUP PROCEDURE	
Critical <u>N</u>	Step 5.1.16	
	Verify the secondary water temperature of each SG is less than 50°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:	Steam Generator Skin Temperatures are recorded as follows:	
	 12413, 11 SG SKIN TI = 145°F 	
	 12414, 12 SG SKIN TI = 149°F 	
Performance:		
Comments:		

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ADMIN-64, VERIFY RCS / STEAM GENERATOR TEMPERATURE DETERMINATION, REV 0			
Performance Step: Critical <u>N</u>	Step 5.1.16 B. Record RCS cold leg temperatures: • 1T0406A, U1 RCS LOOP A COLD LEG • 1T0426A, U1 RCS LOOP B COLD LEG	TEMP TEMP	
Standard:	 RCS Cold Leg Temperatures are recorded as follows: 1T0406A, U1 RCS LOOP A COLD LEG 1T0426A, U1 RCS LOOP B COLD LEG 	TEMP = 101°F TEMP = 98°F	
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌		

Performance Step: Critical <u>Y</u>	Step 5.1.16 C. Determine the limiting SG to RCS temperature difference by subtracting the lowest RCS cold leg temperature from the highest SG skin temperature:
Standard:	Subtracts 149°F - 98°F = 51°F. Determines step 5.1.16 was incorrectly performed.
Performance:	
Comments:	

QF-1075-01 Rev. 2 (FP-T-SAT-75) Page 6 of 6 ADMIN-64, VERIFY RCS / STEAM GENERATOR TEMPERATURE DETERMINATION, REV 0		
Performance Step: Critical <u>Y</u>	Step 5.1.16 D. Verify the limiting SG to RCS temperature difference is less than 50°F	
Standard:	Determines that step 5.1.16.D was incorrectly signed off and the temperature difference is GREATER than 50°F.	
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌	

Terminating Cues:	Candidate determines the SG to RCS temperature difference is 51°F and determines
-	that the limiting SG to RCS temperature difference of 50°F has been exceeded.

Stop Time:

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is completing a refueling outage.
- Preparations are being made to start the FIRST Reactor Coolant Pump.
- The Reactor Operator has completed Step 5.1.16 and Step 5.1.17 of 1C1.2, Unit 1 Startup Procedure.

- Review and verify the data is correct.
- Report any findings to the evaluator.

ADMIN-64, VERIFY RCS / STEAM GENERATOR TEMPERATURE DETERMINATION, REV 0

JPM Setup

- Obtain a copy of pages 22 and 23 of 1C1.2, Unit 1 Startup Procedure
- Markup as follows:
 - \circ Step 5.1.5 initial.
 - Step 51.6.A 11 SG Skin Temp 145°F and 12 SG Skin Temp 149°F.
 - Step 5.1.6.B RCS Loop A Cold Leg Temp 101°F and Loop B Cold Leg Temp 98°F.
 - Step 5.1.6.C Highest SS Skin Temp 149°F and Lowest RCS Cold Leg Temp 101°F = 48°F.
 - \circ Step 5.1.6.D. initial.
 - Step 5.1.7 initial.

ADMIN-64, VERIFY RCS / STEAM GENERATOR TEMPERATURE DETERMINATION, REV 0

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REV	REVIEW STATEMENTS		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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

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

V Xcel Energy	JOB PERFORMANCE MEASURE (JPM)		
SITE:	Prairie Island		
JPM TITLE:	CONTROL S/G WATER LEVELS		
JPM NUMBER:	AF-18 REV. 0		
RELATED PRA INFORMATION:	None		
TASK NUMBERS / TASK TITLE(S):	CRO 061 ATI 00 00 007 / LOCAL OPERATION OF MD AFW PUMP NLO 304 024 05 04 000 / RESPOND TO A SHUTDOWN OUTSIDE THE CONTROL ROOM		
K/A NUMBERS:	068 AK3.03 (3.7/4.3)		
APPLICABLE METHOD O	F TESTING:		
	Discussion: Simulate/walkthrough:	X Perform:	
EVALUATION LOCATION	In-Plant: X Control Roo	om:	
	Simulator: Other:		
	Lab:		
Time for Completior	n: <u>9</u> Minutes Time Criti	cal: <u>NO</u>	
Alternate Path:	NO		
TASK APPLICABILITY:	SRO: X RO: X NLO X		
Additional site-specific sign	natures may be added as desired.		
Developed by:	Mike Fish	12/10/09	
	Developer	Date	
Validated by:	John DuBose	1/11/10	
(Validator See JPM Validation Checklist, Attachment 1)	Date	
Approved by:	Training Supervisor	Date	

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

JPM Number:	AF-18		
JPM Title:	CONTROL S/G WATER LEVE	_S	
Examinee:		Evaluator	
Job Title:		Date:	
Start Time		Finish Time	
PERFORMANCE	RESULTS:	SAT:	UNSAT:

OMMENTS/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.

Page 3 of 3

JPM BRIEFING/TURNOVER

Use NUREG-1021, Appendix E, for JPM Briefing

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.

"ALL OPERATOR ACTIONS ARE TO BE SIMULATED UNLESS DIRECTED OTHERWISE."

INITIAL CONDITIONS:

- The crew is performing 1C1.3 AOP1, SHUTDOWN FROM OUTSIDE THE CONTROL ROOM UNIT 1.
- S/G WR Levels are 58%.
- No AFW pumps are running.

INITIATING CUES:

• The SS has directed you to control S/G water levels IAW 1C1.3 AOP1, step 2.4.15 using the 12 MD AFWP.

JPM PERFORMANCE INFORMATION

Required Materials: General References:	Copy of 1C1.3 AOP1, SHUTDOWN FROM OUTSIDE THE CONTROL ROOM – UNIT 1 pages 7 & 8 1C1.3 AOP1, SHUTDOWN FROM OUTSIDE THE CONTROL ROOM – UNIT 1
Task Standards:	12 MD AFWP is running and S/G levels are >62% WR per 1C1.3 AOP1.

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	1C1.3 AOP1, SHUTDOWN FROM OUTSIDE THE CONTROL ROOM – UNIT 1 Step 2.4.15 Control SG water levels: A. Transfer the AFW pumps to "LOCAL:" CS-51517, 12 MD AFWP
Standard:	Operator places CS-51517, 12 MD AFWP in LOCAL.
Cue:	When operator identifies the correct switches and describes the method of operation, the switches are positioned as stated.
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌
Comments:	

Performance Step: Critical Y	Step 2.4.15.B Start at least one AFW pump by depressing the appropriate control switch: CS-5151802, 12 MD AFWP START PB
Standard:	Operator depresses CS-5151802, 12 MD AFWP start PB.
Cue:	When operator identifies the correct pushbuttons and describes the method of operation, then inform the operator "12 Motor Driven Aux Feed Water Pump is running".
Performance:	
Comments:	

Performance Step:	Step 2.4.15.C
Critical Y	Transfer the AFW pump flow control valves to "LOCAL":
	CS-51503, 12 AFW TO 11 SG MV-32381
	CS-51505, 12 AFW TO 12 SG MV-32382
Standard:	Operator places the AFW pump flow control valves to "LOCAL"
	CS-51503, 12 AFW TO 11 SG MV-32381
	CS-51505, 12 AFW TO 12 SG MV-32382
Cue:	When operator identifies the correct switches and method of operation, the switches are positioned as stated
Evaluator Note:	Switch numbers used in 1C1.3 AOP1 are not consistent. Noun names must be used instead.
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌
Commonts	

Performance Step: Critical N	Step 2.4.15.D Verify WR SG level in both SGs at or trending to 62%:		
	11 SG 1LI-487A 11 I-487B		
	12 SG 1LI-488A 1LI-488B		
Standard:	Operator checks S/G levels and verifies they are rising.		
Cue:	When operator identifies the level instruments indicate that levels are 60% and stable.		
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌		
Comments:			

Performance Step: Critical Y	Note: Do not throttle total AFW flow to SGs to less than 200 gpm until WR level is > 62%.	
	Step 2.4.15.E Throttle the AFW pump flow control valves as necessary to maintain > 62% WR SG level: CS-51504, 12 AFW TO 11 SG MV-32281	
	CS-51506, 12 AFW TO 12 SG MV-32382	
Standard:	Operator throttles open valves to 12 SG to increase S/G levels > 62% WR. CS-51504, 12 AFW TO 11 SG MV-32281 CS-51506, 12 AFW TO 12 SG MV-32382	
Cue:	If operator asks for total AFW flow inform him that flow is 150 gpm.	
	After valves are throttled open, when operator checks S/G levels indicate levels are 63% and rising.	
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌	
Comments:		

Terminating Cues: This JPM is complete when 12 MD AFWP is running and S/G levels are >62% WR per 1C1.3 AOP1.

Stop Time:

TURNOVER SHEET

"ALL OPERATOR ACTIONS ARE TO BE SIMULATED UNLESS DIRECTED OTHERWISE."

INITIAL CONDITIONS:

- The crew is performing 1C1.3 AOP1, SHUTDOWN FROM OUTSIDE THE CONTROL ROOM UNIT 1.
- S/G WR Levels are 58%.
- No AFW pumps are running.

INITIATING CUES:

• The SS has directed you to control S/G water levels IAW 1C1.3 AOP1, step 2.4.15 using the 12 MD AFWP.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REV	IEW 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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

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

O Xcel Energy	JOB PERFORMANCE MEASURE (JPM)		
SITE:	Prairie Island		
JPM TITLE:	RESTORE AFW FLOW AFTER AFW PUMP TRIP ON LOW PRESSURE		
JPM NUMBER:	AF-8S REV.	7	
RELATED PRA INFORMATION:	None		
TASK NUMBERS / TASK TITLE(S):	CRO 061 ATI014 / RESTART AN AFW TRIP	/P AFTER LOW DISCHARGE PRESSURI	
K/A NUMBERS:	061 A 2.04 (3.4/3.8)		
APPLICABLE METHOD O	F TESTING:		
	Discussion: Simulate/wa	alkthrough: Perform: X	
EVALUATION LOCATION	: In-Plant:	Control Room:	
	Simulator: X	Other:	
	Lab:		
Time for Completior	n: <u>15</u> Minutes	Time Critical: NO	
Alternate Path:	NO		
TASK APPLICABILITY:	SRO: X RO: X NL	.0	
Additional site-specific sigr	natures may be added as desired.		
Developed by:	Mike Fish	12/10/09	
	Developer	Date	
Validated by:	John DuBose	12/30/09	
(Validator See JPM Validation Checklist, Attachme	Date Ont 1)	
Approved by:	Training Supervisor	Date	

AF-8S, Restore AFW Flow After AFW Pump Trip on Low Pressure, Rev 7

JPM Number:	_AF-8S
JPM Title:	RESTORE AFW FLOW AFTER AFW PUMP TRIP ON LOW PRESSURE
Examinee:	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.

AF-8S, Restore AFW Flow After AFW Pump Trip on Low Pressure, Rev 7

JPM BRIEFING/TURNOVER

Use NUREG-1021, Appendix E, for JPM Briefing

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 was at 100% power.
- 11 TDAFWP is OOS.
- A steam break on the 11 Steam Generator occurred.
- The crew is responding per 1E-0, Reactor Trip or Safety Injection.
- 12 MD AFW Pump just tripped.

- The Shift Supervisor directs you to respond per ARP 47010-0107, 12 AFWP LOCKED OUT to restore AFW flow to feed 12 SG.
- When AFW flow is restored feed 12 SG to maintain 50-59% WR level.

AF-8S, Restore AFW Flow After AFW Pump Trip on Low Pressure, Rev 7

JPM PERFORMANCE INFORMATION

Required Materials:	None
General References:	47010-0107, 12 AFWP LOCKED OUT
Task Standards:	12 MD AFW started and supplying AFW flow to 12 SG per ARP 47010-0107.
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	47010-0107, INITIAL ACTIONS 1. If 12 MD AFWP is needed to feed steam generators in an emergency situation, Then perform the following: A. Check Steam Generator Pressures.
Standard:	Steam generator pressures are checked using any available indications in the control room.
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌

Performance Step: Critical N	B. If both SG pressures are >700 psig, then the cause of the MD AFWP trip could be an electrical problem go to step 3.
Standard:	This step is N/A
Performance:	
Comments:	

Performance Step: Critical N	C. If either steam generator pressure is <700 psig (the AFWP trip was probably caused by the low discharge pressure trip), then attempt to start the 12 AFW pump as follows.
Standard:	Determines that 11 SG pressure is <700 psig.
Performance: Comments:	

Performance Step: Critical N	C.1) Verify adequate CST level to supply 12 MD AFWP suction. (>5000 gal) or cooling water aligned to 12 MD AFWP suction.
Standard:	Determines that CST level is > 5000 gals.
Performance: Comments:	

Performance Step: Critical N	C.2) Close 12 MD AFWP discharge valves to 11 and 12 SGs, MV-32381 and MV-32382.
Standard:	Verifies MV-32381 and MV-32382 are both closed.
Performance: Comments:	

Performance Step: Critical <u>Y</u>	C.3) Place 12 MD AFWP control selector switch, CS-46439, in MANUAL.	
Standard:	CS-46439 is in MANUAL	
Performance: Comments:		
AF-8S, Restore AFW Flow After AFW Pump Trip on Low Pressure, Rev 7		
--	---	--
Performance Step: Critical <u>Y</u>	C.4) Momentarily place 12 MD AFWP control switch, CS-46425, in "TRIP" to reset the lockout.	
Standard:	CS-46425 placed in "STOP" (Switch will spring return to neutral)	
Cue:	If candidate informs the evaluator that some of the labeling does not match the procedure, inform the candidate that the SS directs him to continue with the procedure as written due to the emergency situation.	
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌	
Comments:		

Performance Step: Critical <u>Y</u>	C.5) Start 12 MD AFWP by momentarily placing CS-46425 in "CLOSE"
Standard:	CS-46425 is placed in "START", 12 MD AFWP is started.
Cue:	If candidate informs the evaluator that some of the labeling does not match the procedure, inform the candidate that the SS directs him to continue with the procedure as written due to the emergency situation.
Performance:	
Comments:	

Performance Step: Critical <u>Y</u>	C.6) If 12 MD AFWP starts, THEN throttle open MV-32381 and MV-32382 as necessary to feed SGs while maintaining >900 psig discharge pressure.
Standard:	MV-32382 is throttled open until desired flow indicated by FI-4122802.
Performance: Comments:	
Terminating Cues:	When the 12 MD AFW started and supplying AFW flow to 12 SG then this JPM is

complete.

Stop Time:

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 was at 100% power.
- 11 TDAFWP is OOS.
- A steam break on the 11 Steam Generator occurred.
- The crew is responding per 1E-0, Reactor Trip or Safety Injection.
- 12 MD AFW Pump just tripped.

INITIATING CUES:

- The Shift Supervisor directs you to respond per ARP 47010-0107, 12 AFWP LOCKED OUT to restore AFW flow to feed 12 SG.
- When AFW flow is restored feed 12 SG to maintain 50-59% WR level.

Page 8 of 8

AF-8S, Restore AFW Flow After AFW Pump Trip on Low Pressure, Rev 7

Simulator Setup :

This JPM can be run from the following Standard (Specific) IC sets:

- Initialize the simulator to IC-10.
- Place the simulator in "RUN".
- Place 11 TDAFWP in MANUAL and the handswitch in PULLOUT and attach caution tags.
- Place a Protected Equipment tag on 12 MDAFWP.
- Insert trigger 1 malfunction to cause a 11 & 12 SG main steam line break.
- When 12 SG WR level lowers to <48% and the 12 MDAFW Pump trips, REMOVE malfunction MS01B and place the simulator in "FREEZE".
- When the candidate is ready, place the simulator in "RUN".

	SIMULATOR INPUT SUMMARY						
Manual Trigger	Туре	Code	Description	Delay	Ramp	Severity Or Value	Event Trigger
1	MALF	MS01A	11 SG MSLB			100	1
1	MALF	MS01B	12 SG MSLB			100	1

AF-8S, Restore AFW Flow After AFW Pump Trip on Low Pressure, Rev 7 ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REV	IEW STATEMENTS	YES	NO	N/A
1.	Are all items on the cover page filled in correctly?			
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Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

? Xcel Energy	JOB PERFORMANCE MEASURE (JPM)
SITE:	Prairie Island	
JPM TITLE:	Loss of Component Cooling	
JPM NUMBER:	CC-6S REV. 0	
RELATED PRA INFORMATION:	None	
TASK NUMBERS / TASK TITLE(S):	CRO 008 ATI 00 00 007 / RESPONSE TO LOS	S OF CC
K/A NUMBERS:	026 AA2.01 (2.9/3.5)	
APPLICABLE METHOD	OF TESTING:	
	Discussion: Simulate/walkthrough	n: Perform: X
EVALUATION LOCATION	N: In-Plant: Control F	Room:
	Simulator: X Other:	
	Lab:	
Time for Completion	on: <u>8</u> Minutes Time C	Critical: <u>NO</u>
Alternate Path:	NO	
TASK APPLICABILITY: Additional site-specific sig	SRO: X RO: X NLO	
		10/10/00
Developed by:	Developer	12/10/09 Date
Validated by:	John DuBose	12/30/09
	Validator (See JPM Validation Checklist, Attachment 1)	Date
A		
Approved by:	Training Supervisor	Date

CC-6S, LOSS OF COMPONENT COOOLING, REV. 0

JPM Number:	CC-6S		
JPM Title:	Loss of Component Cooling Wate	r	
Examinee:		Evaluator:	
Job Title:		Date:	
Start Time		Finish Time	
PERFORMANCE	RESULTS: SA	Г:	UNSAT:

OMMENTS/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.

JPM BRIEFING/TURNOVER

Use NUREG-1021, Appendix E, for JPM Briefing

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:

- Annunciator 47020-0203, 11 CC SURGE TANK HI/LO LVL, is in Alarm.
- The SS has entered 1C14 AOP1, Loss of Component Cooling.
- Step 2.4.3 of 1C14 AOP1 has been completed.

INITIATING CUES (IF APPLICABLE):

• The SS has directed you to perform 1C14 AOP1 starting at step 2.4.4.

JPM PERFORMANCE INFORMATION

Required Materials:	None
General References:	1C14 AOP1
Task Standards:	The CC common header is isolated by closing MV-32120 and MV-32121 to stop the leak on the CC supply to the Letdown HX per 1C14 AOP1.
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:	1C14 AOP1, LOSS OF COMPONENT COOLING
Critical N	Step 2.4.4
	IF a CC leak is suspected. THEN perform the following actions to locate the
	leak AND isolate (refer to Table 1 for equipment cooling requirements)
	A Direct operator(s) to inspect the Auxiliary Building for evidence of
	Component Cooling lookage
	Component Cooling leakage.
	P. Direct operator(a) to inapport the Turbing Building, Cold Lab and Coo
	B. Direct operator(s) to inspect the Turbine Building, Cold Lab and Gas
	House for evidence of CC leakage.
Standard	Operator dispetables operators to increat the Auviliary and Turbine
Standard.	Ruildings for looks
	Buildings for leaks
Evaluator Cue	When dispatched, have the Auxiliary Building operator report that a leak
	was found on the CC supply value to the Lotdown Heat Exchanger Also
	report the value is broken and CANNOT he closed
	report the valve is broken and CANNOT be closed.
Performance:	
Comments:	

	CC-6S, LOSS OF COMPONENT COOOLING, REV. 0
Performance Step: Critical N	1C14 AOP1, LOSS OF COMPONENT COOLING Table 1 Component - Letdown Heat Exchanger Operating Limits Without Component CLG Water Supply – Should not be operated Actions if limits are exceeded – Isolate letdown HX.
Standard:	Operator determines based on report from Auxiliary Building Operator that the CC manual supply valve to the Letdown HX cannot be isolated and continues to Step 2.4.4.C to isolate the CC common header.
Evaluator Cue:	When dispatched, have the Auxiliary Building operator report that a leak was found on the CC supply valve to the Letdown Heat Exchanger. Also report the valve is broken and CANNOT be closed.
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌
Comments:	

Performance Step: Critical N	Step 2.4.4.C Isolate the CC common header by performing the following:			
	1. Start the standby CC Pump.			
Standard:	Start the standby CC Pump.			
Performance: Comments:				

CC-6S, LOSS OF COMPONENT COOOLING, REV. 0				
Performance Step: Critical Y	Step: Step 2.4.4.C Isolate the CC common header by performing the following:			
	2. CLOSE MV-32120, 11 CC HX OUTL MV, using CS-46029			
Standard:	CLOSE MV-32120, 11 CC HX OUTL MV, using CS-46029			
Performance:				
Comments:				

Performance Step: Critical Y	Step 2.4.4.C Isolate the CC common header by performing the following:		
	3. CLOSE MV-32121, 12 CC HX OUTL MV, using CS-46032		
Standard:	CLOSE MV-32121, 12 CC HX OUTL MV, using CS-46032		
Performance:			
Comments:			

	CC-6S, LOSS OF COMPONENT COOOLING, REV. 0
Performance Step: Critical N	 Step 2.4.4.D IF CC leakage is determined to be the CC supply to RCPs, THEN perform the following: 1. Trip the reactor, THEN initiate 1E-0, Reactor Trip or Safety Injection AND complete the remaining steps of this procedure. 2. Trip both RCPs. 3. Locally CLOSE the following: MCC 1K1-H5 (BKR 111J-31), 11/12 RC PMP CC INLT MV-32266 MCC 1K2-D5 (BKR 121J-35), 11/12 RC PMP CC INLT MV-32267 4. CLOSE MV-32266, 11/12 RCP CC INLT MV A, using CS-19100. (Aux Bldg 695', J.0/6.8) 5. CLOSE MV-32267, 11/12 RCP CC INLT MV B, using CS-19101. (Aux Bldg 695', H.6/6.3) 6. Locally CLOSE the following breakers: MCC 1L1-C1 (BKR 112E-10), 11 RC PMP CC INLT MV-32089 MCC 1L1-C2 (BKR 112E-11), 11 RC PMP CC OUTL MV-32090 MCC 1L2-A1 (BKR 122E-10), 12 RC PMP CC OUTL MV-32091 MCC 1L2-A2 (BKR 122E-11), 12 RC PMP CC OUTL MV-32092 7. CLOSE MV-32089/32090, 11 RC PMP CC OUTL/INLT, using CS-46028. 8. CLOSE MV-32092/32091, 12 RC PMP CC OUTL/INLT, using CS-46031.
Standard:	Operator determines that leak is not on the RCP supply and N/As this step.
Performance:	
Comments:	

Performance Step: Critical N	Step 2.4.5 IF the RCS is in a drained-down condition AND CC is not restored, THEN makeup to the RCS to maintain cooling. Refer to 1E-4 for guidance.
Standard:	Operator will N/A this step.
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌

CC-6S, LOSS OF COMPONENT COOOLING, REV. 0

Performance Step:	Step 2.4.6
Critical N	Verify notifications per SWI O-28 are complete.
Standard	Operator potifies SS that Notifications are required IAW SWLO-28
Stanuaru.	Operator notifies 35 that Notifications are required IAW 3WI-0-20
Performance:	SATISFACTORY 📋 UNSATISFACTORY 📋
Comments:	

Terminating Cues:	The CC common header is isolated by closing MV-32120 and MV-32121 to stop
_	the leak on the CC supply to the Letdown HX.

Stop Time:

TURNOVER SHEET

INITIAL CONDITIONS:

- Annunciator 47020-0203, 11 CC SURGE TANK HI/LO LVL, is in Alarm.
- The SS has entered 1C14 AOP1, Loss of Component Cooling.
- Step 2.4.3 of 1C14 AOP1 has been completed.

INITIATING CUES (IF APPLICABLE):

• The SS has directed you to perform 1C14 AOP1 starting at step 2.4.4.

CC-6S, LOSS OF COMPONENT COOOLING, REV. 0

Simulator Setup (as required):

- 1. This JPM can be run from the following Standard (Specific) IC sets:
 - Reset to IC-10 or any at power IC.
 - Place simulator in "RUN".
 - Enter trigger 1 on simulator input summary.
 - Leave simulator in "RUN' until the CC surge tank makeup valve is open and annunciator 47020-0203, 11 CC SURGE TANK HI/LO LVL, is in Alarm, enter trigger 2 and then Place in "FREEZE".
 - Markup copy of 1C14 AOP1 up to step 2.4.4.
 - Place simulator in "RUN" when directed by the evaluator.
 - During JPM monitor 11 CC surge level and ensure level is slowly lowering until MV-32120 and MV-32121 are closed. Adjust CC05 severity level as necessary to control level. DO NOT ALLOW CC SURGE TANK LEVEL TO GO OFF SCALE LOW.
 - Delete malfunction CC05 when MV-32120 and MV-32121 are closed.

SIMULATOR INPUT SUMMARY							
Manual Trigger	Туре	Code	Description	Delay	Ramp	Severity Or Value	Event Trigger
1	MALF	CC05	CCW SYSTEM PIPING RUPTURE			4	1
2	REMOTE	CC108	SURGE TANK X-TIE ISOL VLV (CC-27-8)			CLOSED	1

CC-6S, LOSS OF COMPONENT COOOLING, REV. 0 ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REV	IEW 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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

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:	Restore Power to Bus 15 f	rom Unit 2			
JPM NUMBER:	EA-19SF	REV.	0		
RELATED PRA INFORMATION:	PERFORM MANUAL VOL	TAGE REST	ORATION FRO	M OPPOSITE UN	NIT (2%
TASK NUMBERS / TASK TITLE(S):	CRO 000 055 05 01 000 /	LOSS OF OF	FSITE AND ON	ISITE POWER	
K/A NUMBERS:	055 EA2.03 (3.9/4.7)				
APPLICABLE METHOD O	F TESTING:				
	Discussion:	Simulate/wal	lkthrough:	Perform:	Χ
EVALUATION LOCATION	: In-Plant:		Control Room:		
	Simulator:	X	Other:		
	Lab:				
Time for Completion	n: <u>9</u> Minutes		Time Critical:	NO	
Alternate Path:	YES				
TASK APPLICABILITY:	SRO: X RO:	X NLO	0 🗌		
Additional site-specific sign	natures may be added as d	esired.			1
Developed by:	Mike Fish			12/8/09	
	Developer			Date	
Validated by:	John DuBos	e		12/30/09	
(Validator See JPM Validation Checkli	st, Attachmer	nt 1)	Date	
``````````````````````````````````````			·		
Approved by:	Training Superv	visor		Date	

JPM Number:	EA-19SF		
JPM Title:	Restore Power to Bus ?	15 from Unit 2	
Examinee:		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.

### JPM BRIEFING/TURNOVER

### Use NUREG-1021, Appendix E, for JPM Briefing

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

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

### **INITIAL CONDITIONS:**

• The unit has experienced a Loss of All Safeguards AC Power.

### **INITIATING CUES:**

• The SS has directed you to restore power to a Unit 1 Safeguards Bus IAW 1ECA-0.0, starting at step 5.

### JPM PERFORMANCE INFORMATION

General References:	1ECA-0.0
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Task Standards:Bus 15 is energized from Unit 2 via the cross tie breakers per 1ECA-0.0.

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:	1ECA 0.0, LOSS OF ALL SAFEGUARDS AC POWER
Critical N	Step 5. Check If Safeguards Buses Are Available For Sequencer Loading:
	a. Check Bus 16 – AVAILABLE
	<ul> <li>Bus 16 green load rejection lights – LIT</li> </ul>
	<ul> <li>Bus 16 lock out annunciator 47024-0104 – OFF</li> </ul>
	b. Check Bus 15 – AVAILABLE
	<ul> <li>Bus 15 green load rejection lights – LIT</li> </ul>
	<ul> <li>Bus 15 lock out annunciator 47024-0101 – OFF</li> </ul>
Standard:	Determines Bus 16 is locked out, Bus 15 is available and continues to step
	6.
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌
Comments:	

Performance Step: Critical N	Step 6. Attempt To Restore Power To Any Available Safeguards Bus From Unit 1 source: a. Energize available bus with diesel generator: 1) Start diesel generator
Standard:	Operator determines that D1 D/G is locked out and goes to step 6 RNO, Determines no Unit 1 sources are available and continues to step 7.
Evaluator Note:	<ul> <li>1ECA-0.0 Notes prior to step 6:</li> <li>Diesel generator lock out annunciators (47024-0703 and 47024-0706) AND power from offsite sources (1R and CT11) can be used when determining if a Unit 1 source is available.</li> <li>IF both safeguards buses are available, THEN it is preferable to attempt energizing Bus 16 first.</li> </ul>
Performance:	
Comments:	

Performance Step: Critical N	Step 6 RNO 1) Check any Unit 1 Source available. IF no UNIT 1 source is available, THEN go to Step 7.
Standard:	Operator verifies that no Unit 1 source is available and goes to step 7.
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌

Performance Step: Critical N	Step 7. Attempt To Restore Power To Any Available Safeguards Bus From Unit 2: a. Check bus tie breakers for either bus - AVAILABLE:
	1) Unit 1 SI actuated annunciator 47014-0604 – OFF 2) Unit 2 SI Pumps – BOTH OFF
	3) Corresponding Unit 2 bus - ENERGIZED

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

Standard:	Operator verifies that bus tie breakers are available
Evaluator Cue:	If asked status of Unit 2 Safety Injection pumps, then inform the candidate Unit 2 Safety Injection pumps are NOT running.
Performance:	
Comments:	

Performance Step:	Step 7b.
Critical N	Place safeguards bus source breakers for available bus to "PULLOUT": 1) 1R source
	2) CT11 source
	3) DG source
Standard:	Operator place the following source breakers to Bus 15 in Pullout: 1) 1R source 2) CT11 source 3) DG source
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌
Comments:	

Performance Step: Critical N	Step 7c. Check Unit 1 SI pump breaker(s) - OPEN
Standard:	Operator verifies that Unit 1 SI pump breaker(s) - Open
Performance: Comments:	

Performance Step: Critical Y	Step 7d. Close 4KV bus tie breakers for available bus: 1) Unit 2 bus tie breaker
Standard:	Operator closes the Unit 2 Bus 25/Bus15 Bus tie breaker.
Performance: Comments:	

Performance Step: Critical Y	Step 7d. Close 4KV bus tie breakers for available bus: 2) Unit 1 bus tie breaker
Standard:	Operator closes the Unit 1 Bus 15/Bus 25 Bus Tie breaker.
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌

Performance Step: Critical N	Step 7e. Check safeguards buses – At LEAST ONE ENERGIZED
Standard:	Operator verifies that Bus 15 is energized using one of the following: 1) Bus 15 power available light LIT or 2) Bus 15 voltage at approximately 4160 volts.
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌

Terminating Cues: Candidate has reported to the SS that Bus 15 is energized this JPM is complete.

Stop Time:

# TURNOVER SHEET

### **INITIAL CONDITIONS:**

• The unit has experienced a Loss of All Safeguards AC Power.

### **INITIATING CUES:**

• The SS has directed you to restore power to a Unit 1 Safeguards Bus IAW 1ECA-0.0, starting at step 5.

### Page 9 of 9

## Simulator Setup :

- 1. This JPM can be run from the following Standard (Specific) IC sets:
  - Reset to IC-10 or Any At Power IC.
  - Enter simulator input summary.
  - Place simulator in "RUN".
  - Enter trigger 1.
  - Perform 1E-0.
  - Performed and markup 1ECA-0.0 thru step 4.
  - Place simulator in "FREEZE".

SIMULATOR INPUT SUMMARY							
Relative Order	System Or Panel Drawing	Туре	Code	Severity Or Value	Event Trigger	Timing	Description
0	SIMDG01	MALF	DG02A	INSERT	1		D1 Emergency Diesel Generator Fails To Start
0	SIMED04	MALF	ED09F	INSERT	1		Bus 16 Lockout
0	ED01	MALF	ED14	INSERT	1		Loss of All offsite AC power

### EA-19SF, RESTORE POWER TO BUS 15 FROM UNIT 2, REV 0

### **ATTACHMENT 1**

### JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REV	IEW 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			
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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

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:	LINEUP RWST TO CHARGING DURING ATWS	
JPM NUMBER:	FL-10SF-3 <b>REV.</b> 4	
RELATED PRA INFORMATION:	NONE	
TASK NUMBERS / TASK TITLE(S):	CRO 004 ATI 00 00 015 / EMERGENCY BORATI	E THE RCS
K/A NUMBERS:	029 EK3.11 (4.2/4.3)	
APPLICABLE METHOD C	OF TESTING:	
EVALUATION LOCATION	Discussion: Simulate/walkthrough:	Perform: X
	Simulator: X Other:	
Time for Completion	n: <u>6</u> Minutes Time Cri	tical: <u>NO</u>
Alternate Path:	YES	
TASK APPLICABILITY:	SRO: X RO: X NLO	
Additional site-specific sig	natures may be added as desired.	
Developed by:	John DuBose Developer	<b>12/15/09</b> Date
Validated by:	Mike Fish Validator	<b>12/30/09</b> Date
Approved by:	Training Supervisor	Date

QF-1075-01 Rev. 2 (FP-T-SAT-75)

FL-10SF-3, LINEUP RWST TO CHARGING DURING ATWS, REV. 4

JPM Number:	FL-10SF-3
JPM Title:	LINEUP RWST TO CHARGING DURING ATWS, REV. 4
Examinee:	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:

### FL-10SF-3, LINEUP RWST TO CHARGING DURING ATWS, REV. 4

### JPM BRIEFING/TURNOVER

### Use NUREG-1021, Appendix E, for JPM Briefing

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 was at 100% power with 13 Charging Pump OOS for corrective maintenance.
- An ATWS then occurred on Unit 1.
- 11 Charging Pump tripped shortly after the event began.
- The crew has completed Steps 1 through 3 of 1FR-S.1 Response to Nuclear Power Generation/ATWS.
- The RO is continuing to drive rods IN

### **INITIATING CUES:**

• The Unit 1 SS has directed you to perform Step 4 of 1FR-S.1.

### FL-10SF-3, LINEUP RWST TO CHARGING DURING ATWS, REV. 4

#### JPM PERFORMANCE INFORMATION

Required Materials:	None
General References:	1FR-S.1
Task Standards:	Charging is aligned to RWST and flow maximized per 1FR-S.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 <u>N</u>	Step 4 Initiate Normal Boration Of RCS At 12 To 15 GPM
Standard:	Set 41111, BA TO BLENDER BATCH INTEGRATOR, to a high number. Place CS-46300, MAKE-UP MODE SELECTOR, to BORATE. Place CS-46457, BORIC ACID MAKE-UP CONTROL, to START. Recognize that CV-31199, BA INLT TO BLENDER, will NOT open.
Evaluator Note:	The examinee should determine that CV-31199 will NOT open, and that the boric acid flow on the chart recorder is still at 0 gpm.
Evaluator Cue:	When examinee indicates normal boration is unsuccessful, then inform the examinee that you acknowledge this report.
Performance: Comments:	

FL-10SF-3, LINEUP RWST TO CHARGING DURING ATWS, REV. 4		
Performance Step:	Step 4 RNO	
Critical <u>N</u>	a. Transfer running Boric Acid Transfer pump to "FAST" speed.	
Standard:	11 Boric Acid Transfer pump is placed in "FAST" speed.	
Performance:		
Comments:		

Step 4 RNO
Establish emergency boration:
b. Open in-service BAST recirculation valve to 50% position.
In-service BAST recirculation valve (CV-31195) opened to 50% using 1-HC- 105.

Performance Step: Critical N	Step 4 RNO Establish emergency boration:
	c. Open emergency Boration valve (MV-32086) using CS-46297.
Standard:	Attempts to open MV-32086, Emergency Boration valve, using CS- 46297.
Evaluator Cue:	When examinee indicates emergency boration is unsuccessful, then inform the examinee that you acknowledge the report.
Performance: Comments:	

FL-10SF-3, LINEUP RWST TO CHARGING DURING ATWS, REV. 4

Performance Step: Critical <u>Y</u>	Step 4 RNO <u>IF</u> emergency boration can <u>NOT</u> be established, <u>THEN</u> align RWST to charging…
Standard:	Open MV-32060 using CS-46453
Evaluator Note:	Examinee may close MV-32061 using CS-46035. This is permissible, though not procedurally required.
Performance: Comments:	

Performance Step: Critical <u>Y</u>	Step 4 RNO … <u>AND</u> maximize charging flow.
Standard:	Charging flow to RCS is maximized.
Evaluator Note:	11 and 13 Charging pumps are not available. 12 Charging pump will be running in MANUAL at minimum speed.
Evaluator Cue:	If the examinee asks for direction on maximizing charging flow, then direct the examinee to increase 12 Charging pump speed to maximize charging flow while maintaining 6-10 gpm seal injection flow to each RCP.
Performance: Comments:	

Terminating Cues: When Charging is aligned to the RWST and flow maximized, the JPM is complete.

Stop Time:

Page 7 of 9

### FL-10SF-3, LINEUP RWST TO CHARGING DURING ATWS, REV. 4

## SIMULATOR SETUP

### **INSTRUCTOR GUIDE:**

- Rest to IC-10 or Any At Power IC
- Ensure the C12.5 Boration placard is clean.
- Sign for steps 1-3 in 1FR-S.1 and leave the book open on the console.
- Reset the Makeup Integrators.
- Place 13 Charging Pump in PULLOUT and hang a Caution Tag on the handswitch.
- Ensure the "11 BAST L/U FOR SERVICES" placard is placed next to 11 BAST.
- Ensure the "11 LINED UP TO BA STG TNK" placard is placed above the 11 BA TRANSFER PUMP.
- Enter Relative Order 0 malfunctions and overrides.
- Place Control Rods in MANUAL.
- Place simulator in "RUN".
- Manually trip the turbine.
- Ensure 12 MDAFWP is running.
- Place the simulator in freeze.
- Conduct turnover.
- Place the simulator in Run when the examinee takes the duty.

Relative	System or Panel			Severity or			
Order	Drawing	TYPE	CODE	Value	Event Trigger	TIMING	DESCRIPTION
0		MALF	VC04A				11 Charging Pump trip
0		MALF	RP07A				Mechanical Failure of Reactor Trip Breaker A
0		MALF	RP07B				Mechanical Failure or Reactor Trip Breaker B
0		OVRD DI	DI-46301C	True			BA inlet to blender
0		OVRD DI	DI-46301O	False			BA inlet to blender
0		OVRD DI	DI-46297O	False			Emergency Boration to Charging pump suction
0		MALF	RD07H				Dropped Rod K-7
0		MALF	RD04F				Rod Insertion
0		OVRD AI	AI-4304301:R2	0			Manual Boration Controller

# **TURNOVER SHEET**

## **INITIAL CONDITIONS:**

- Unit 1 was at 100% power with 13 Charging Pump OOS for corrective maintenance.
- An ATWS then occurred on Unit 1.
- 11 Charging Pump tripped shortly after the event began.
- The crew has completed Steps 1 through 3 of 1FR-S.1 Response to Nuclear Power Generation/ATWS.
- The RO is continuing to drive rods IN

### **INITIATING CUES:**

• The Unit 1 SS has directed you to perform Step 4 of 1FR-S.1.

## FL-10SF-3, LINEUP RWST TO CHARGING DURING ATWS, REV. 4 ATTACHMENT 1

### JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REV	IEW 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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

<b>? Xcel</b> Energy	JOB PERFORMANCE MEASURE (JPM)			
SITE:	Prairie Island			
JPM TITLE:	RESPOND TO BYPASSED INSTRUMENT INVERTER			
JPM NUMBER:	IP-3 <b>REV.</b> 2			
RELATED PRA INFORMATION:	None			
TASK NUMBERS / TASK TITLE(S):	CRO 062 ATI 00 00 024 / RESPONSE TO INSTRUMENT INVERTER BYPASS NLO 062 074 04 04 000 / RESPOND TO INSTRUMENT INVERTER ABNORMAL OPERATIONS			
K/A NUMBERS:	062 A3.04 (2.7/2.9)			
APPLICABLE METHOD O	OF TESTING:			
EVALUATION LOCATION	Discussion: Simulate/walkthrough: X Perform: I: In-Plant: X Control Room:			
	Simulator: Other:			
	Lab:			
Time for Completion	n: <u>10</u> Minutes Time Critical: <u>NO</u>			
Alternate Path:	NO			
TASK APPLICABILITY:	SRO: X RO: X NLO X			
Additional site-specific sig	natures may be added as desired.			
Developed by:	Mike Fish 11/17/09			
	Developer Date			
Validated by:	John DuBose 1/11/10			
(	Validator Date (See JPM Validation Checklist, Attachment 1)			
Approved by:	Training Supervisor Date			

Retention: Life of Plant Retain in: Training Record Form retained in accordance with record retention schedule identified in FP-G-RM-01. IP-3, RESPOND TO BYPASSED INSTRUMENT INVERTER, REV 2

JPM Number:	IP-3		
JPM Title:	RESPOND TO BYPASSED INSTRU	IMENT INVERTER	ξ
Examinee:		Evaluator:	
Job Title:		Date:	
Start Time		Finish Time	
PERFORMANCE	RESULTS: SA1	:	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.
#### Page 3 of 3

#### IP-3, RESPOND TO BYPASSED INSTRUMENT INVERTER, REV 2

#### JPM BRIEFING/TURNOVER

#### Use NUREG-1021, Appendix E, for JPM Briefing

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.

#### "ALL OPERATOR ACTIONS ARE TO BE SIMULATED UNLESS DIRECTED OTHERWISE."

#### **INITIAL CONDITIONS:**

- Unit 2 is at 100%.
- C47505-0108, 22 INVERTER INSTR BUS I (RED) BYPASSED is received in the Control Room.

#### INITIATING CUES (IF APPLICABLE):

• The SS directs you to respond to the alarm per 2C20.8 AOP1, starting at step 2.4.3.

#### JPM PERFORMANCE INFORMATION

Required Materials:	Consumable Copy of 2C20.8 AOP1
General References:	2C20.8 AOP1
Task Standards:	22 Instrument Inverter returned to Normal operation per 2C20.8 AOP1.
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 <u>N</u>	2C20.8 AOP1, ABNORMAL OPERATION, INSTRUMENT AC INVERTERS Step 2.4.3
	A. If the INVERTER OUTPUT (AC VOLTS) indicates less than 115 volts or greater then 125 volts, then proceed to step 2.4.3.H.
Standard:	At 22 INVERTER Cabinet candidate reads INVERTER OUTPUT (AC VOLTS) meter.
Evaluator Cue:	Point to 120 Volts mark or state "as indicated" if in 115-125V range.
Performance: Comments:	

Performance Step: Critical <u>N</u>	<ul><li>Step 2.4.3</li><li>B. If inverter circuit breaker CB1 or CB2 or CB4 is OPEN/TRIPPED, then proceed to step 2.4.3.H.</li></ul>	
Standard:	At 22 INVERTER Cabinet candidate determines CB1, CB2, and CB4 breakers are "ON".	
Evaluator Cue:	State "As indicated". If necessary due to the Inverter being OOS or malfunctioning, "CB1 is ON" "CB2 is ON" "CB4 is ON"	
Performance: Comments:		

Performance Step: Critical <u>N</u>	<ul><li>Step 2.4.3</li><li>C. If the AC Input Breaker, CB401, is tripped, THEN place CB401 in the "ON" position.</li></ul>	
Standard:	At 22 INVERTER Cabinet candidate determines CB401 is in the "ON" position.	
Evaluator Cue:	State "As indicated". If necessary due to the Inverter being OOS or malfunctioning, "CB401 is ON".	
Performance: Comments:		

Performance Step: Critical <u>N</u>	<ul> <li>Step 2.4.3</li> <li>D. Verify all indicating lights except for the INV SUPPLYING LOAD amber indicating light, PL201, are LIT.</li> </ul>
Standard:	At 22 INVERTER Cabinet candidate verifies all lights are LIT except, PL201, INV SUPPLYING LOAD amber indicating light.
Evaluator Cue:	As Candidate asks about each light, "Light is LIT" Except for PL201 "Light is NOT LIT"
Performance: Comments:	
Performance Step: Critical <u>Y</u>	<ul> <li>Step 2.4.3</li> <li>E. Momentary depress the INV STATIC SW TO LOAD pushbutton, PB201, and verify the INV SUPPLYING LOAD amber indicating light, PL201 comes "ON" while the ALT SCR SUPPLYING LOAD red indicating light, PL202 goes</li> </ul>

	"OFF".
Standard:	At 22 INVERTER Cabinet candidate depresses PB201, observes PL201 amber light turns "ON" and PL202 red light goes "OFF".
Evaluator Cue:	When required, "PB201 is Depressed" PL201/202 "as you see them" if inverter operating normally. If necessary due to the Inverter being OOS or malfunctioning, "PL201 amber light ON" "PL202 red light OFF"
Performance: Comments:	

Performance Step: Critical <u>Y</u>	<ul> <li>Step 2.4.3</li> <li>F. If the AC Input Breaker CB401 tripped during transfer, THEN place CB401 in the "ON" position.</li> </ul>
Standard:	At 22 INVERTER Cabinet candidate resets and closes CB401.
Evaluator Cue:	When asked, inform the Candidate "CB401 is TRIPPED" When candidate simulates closing CB401, inform that "CB401 is closed"
Performance: Comments:	

Performance Step:	Step 2.4.3		
Critical <u>N</u>	G. Verify the inverter is operating properly by checking:		
	<ol> <li>All amber indicating pilot lights are lit.</li> <li>The red indicating pilot light (PL202) is not lit.</li> <li>INVERTER OUTPUT (AC CURRENT) of 10-40 amps.</li> <li>INVERTER OUTPUT (AC VOLTS) of 115 to 125 volts.</li> <li>INVERTER OUTPUT (FREQUENCY) of ~60 Hz.</li> <li>ALTERNATE SOURCE AC INPUT (AC VOLTS) of 115-130 volts.</li> <li>BATTERY INPUT (DC CURRENT) is 0 (zero) amps.</li> <li>DC INPUT (DC VOLTS) of 130-145 volts.</li> </ol>		
Standard:	At 22 INVERTER Cabinet candidate checks all indication's are in the normal range.		
Evaluator Cue:	All indication's are checked and read in the "as indicated" condition for the inverter (if in service), if inverter is not in service, indications are within the allowed values.		
Performance:			
Comments:			
Terminating Cues: After	er candidate verifies inverter operating properly, this JPM is complete.		

Stop Time:

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

# **TURNOVER SHEET**

# "ALL OPERATOR ACTIONS ARE TO BE SIMULATED UNLESS DIRECTED OTHERWISE."

# INITIAL CONDITIONS:

- Unit 2 is at 100%.
- C47505-0108, 22 INVERTER INSTR BUS I (RED) BYPASSED is received in the Control Room.

## **INITIATING CUES:**

• The SS directs you to respond to the alarm per 2C20.8 AOP1, starting at step 2.4.3.

### **ATTACHMENT 1**

#### JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REV	IEW 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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

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

<b>∂ Xcel</b> Energy [_]	JOB PERFORMANCE MEASURE (JPM)			
SITE:	Prairie Island			
JPM TITLE:	N35 FAILURE HIGH WITH FAILURE OF REACTOR TO TRIP			
JPM NUMBER:	NI-4SF-1 <b>REV.</b> 2			
RELATED PRA INFORMATION:	None			
TASK NUMBERS / TASK TITLE(S):	CRO 015 ATI.00.00.003 / RESPONSE TO INTERMEDIATE RANGE NIS FAILURE			
K/A NUMBERS:	015 A2.02 (3.1/3.5*)			
APPLICABLE METHOD O	F TESTING:			
	Discussion: Simulate/walkthrough:	Perform: X		
EVALUATION LOCATION	: In-Plant: Control Room			
	Simulator: X Other:			
	Lab:			
Time for Completion	n: <u>12</u> Minutes Time Critical	: <u>NO</u>		
Alternate Path:	YES			
TASK APPLICABILITY: Additional site-specific sign	SRO: X RO: X NLO			
Developed by:	Mike Fish Developer	11/18/09 Date		
Validated by:	John DuBose	12/30/09		
(	Validator See JPM Validation Checklist, Attachment 1)	Date		
Approved by:				
	Training Supervisor	Date		

QF-1075-01 Rev. 2 (FP-T-SAT-75)

NI-4SF-1, N35 FAILURE HIGH WITH FAILURE OF REACTOR TO TRIP, REV 2

JPM Number:	NI-4SF-1
JPM Title:	N35 FAILURE HIGH WITH FAILURE OF REACTOR TO TRIP
Examinee:	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.

#### QF-1075-01 Rev. 2 (FP-T-SAT-75)

NI-4SF-1, N35 FAILURE HIGH WITH FAILURE OF REACTOR TO TRIP, REV 2

#### JPM BRIEFING/TURNOVER

#### Use NUREG-1021, Appendix E, for JPM Briefing

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

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

#### **INITIAL CONDITIONS:**

- The reactor has just been taken critical per 1C1.2, and Appendix C1B.
- The reactor startup is complete.
- Power is stable at 1X10⁻⁸ amps for shift turnover.

#### **INITIATING CUES:**

• The SS directs you to respond to plant conditions.

NI-4SF-1, N35 FAILURE HIGH WITH FAILURE OF REACTOR TO TRIP, REV 2

#### JPM PERFORMANCE INFORMATION

Required Materials:	1E-0, Reactor Trip or Safety Injection
-	47013-0302, INTERMEDIATE RANGE HI FLUX LVL ROD WITHDRAWAL STOP
	47017-0203, INTERMEDIATE RANGE HI FLUX LVL REACTOR TRIP
General References:	1E-0, Reactor Trip or Safety Injection
	47013-0302, INTERMEDIATE RANGE HI FLUX LVL ROD WITHDRAWAL STOP
	47017-0203, INTERMEDIATE RANGE HI FLUX LVL REACTOR TRIP
Task Standards:	When the reactor is tripped, and the actions of 1C51.1, Intermediate Range Nuclear
	Instrument N-35 – High, have been completed
General References: Task Standards:	47017-0203, INTERMEDIATE RANGE HIFLUX LVL REACTOR TRIP 1E-0, Reactor Trip or Safety Injection 47013-0302, INTERMEDIATE RANGE HI FLUX LVL ROD WITHDRAWAL STO 47017-0203, INTERMEDIATE RANGE HI FLUX LVL REACTOR TRIP When the reactor is tripped, and the actions of 1C51.1, Intermediate Range Nuc Instrument N-35 – High, have been completed

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 Regualification Program Examinations.

Performance Step: Critical <u>Y</u>	47017-0203, INTERMEDIATE RANGE HI FLUX LVL REACTOR TRIP
	Trip the Unit 1 Reactor.
Standard:	Reactor is manually tripped.
Evaluator Note:	Candidate might trip the reactor due to reaching a reactor protection trip setpoint prior to referencing any procedures IAW Conduct of Operations.
Evaluator Cue:	IF the candidate fails to trip the reactor based on the FIRST OUT alarm:
	<ul> <li>Direct the candidate to respond to 47017-0203, INTERMEDIATE RANGE HI FLUX LVL REACTOR TRIP</li> </ul>
Performance:	SATISFACTORY U UNSATISFACTORY
Comments:	

# NI-4SF-1, N35 FAILURE HIGH WITH FAILURE OF REACTOR TO TRIP, REV 2

Performance Step: Critical <u>N</u>	<ul> <li>1E-0, REACTOR TRIP OR SAFETY INJECTION</li> <li>STEP 1 Verify Reactor Trip <ul> <li>Reactor trip and bypass breakers – OPEN</li> <li>Neutron flux – DECREASING</li> <li>Rod Position Indicators – ZERO</li> <li>Rod Bottom lights - LIT</li> </ul> </li> </ul>
Standard:	Candidate verifies the reactor is tripped using all four step 1 indications
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌
Comments:	
Performance Step: Critical <u>N</u>	1E-0, REACTOR TRIP OR SAFETY INJECTION STEP 2 Verify Turbine Trip a. Both turbine stop valves - CLOSED
Standard:	Candidate verifies turbine left and right stop valves are CLOSED using 47007- 0603 and 0604 TURBINE LEFT AND RIGHT STOP VALVE CLOSED alarms or Turbine Control HMI Display - Turbine Overview
Performance:	
Comments:	
Performance Step: Critical <u>N</u>	1E-0, REACTOR TRIP OR SAFETY INJECTION STEP 3 Verify Both Safeguards Buses - ENERGIZED
Standard:	Candidate verifies Bus 15 and Bus 16 is energized using bus voltmeters indicating approx 4160 volts or bus energized green or red indicating lights -LIT
Performance:	
Comments:	

	NI-4SF-1, N35 FAILURE HIGH WITH FAILURE OF REACTOR TO TRIP, REV 2
Performance Critical <u>N</u>	<ul> <li>Step: 1E-0, REACTOR TRIP OR SAFETY INJECTION STEP 4 Check if SI is Actuated         <ul> <li>"SI ACTUATED" status light – LIT OR</li> <li>Any SI first-out annunciators - LIT</li> </ul> </li> </ul>
Standard:	Candidate verifies NO SI is actuated by verifying 47014-0604 SI ACTUATED status light is OFF and NO SI first-out annunciators are LIT on panel 47017.
Evaluator Cue	Once candidate has performed immediate actions from memory, Inform the candidate that other operators will continue with EOPs and direct him to respond to 47013-0302, INTERMEDIATE RANGE HI FLUX LVL ROD WITHDRAWAL STOP.

Performance:	
Comments:	

Performance Step: Critical <u>N</u>	47013-0302, INTERMEDIATE RANGE HI FLUX LVL ROD WITHDRAWAL STOP Step 1 Check Intermediate range flux levels.
Standard:	Examinee determines that Intermediate Range Nuclear Instrument N-35 is failed high.
Performance: Comments:	

Performance Step: Critical <u>N</u>	Step 2 <u>IF</u> alarm is valid, <u>THEN</u> reduce power to <15%.
Standard:	Examinee determines that alarm is not valid, and power is already < 15%.
Performance: Comments:	

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NI-4SF-1,	N35 FAILURE HIG	H WITH FAILURE OF REACTOR 1	TO TRIP, REV 2
Performance Step:	Step 3		

Critical <u>N</u>	<u>IF</u> performing a unit startup, <u>THEN</u> refer to 1C1.2, UNIT 1 STARTUP PROCEDURE, to block the intermediate range high flux trip and rod stop.
Standard:	Determines that the high flux trip and rod stop should NOT be blocked at this time. Candidate NA's step.
Performance:	
Comments:	

Performance Step: Critical <u>N</u>	Step 4 <u>IF</u> due to instrument failure, <u>THEN</u> refer to 1C51, Instrument Failure Guide
Standard:	Enters 1C51.1, Intermediate Range Nuclear Instrument N-35 - HIGH
Performance: Comments:	

Performance Step: Critical <u>N</u>	<ul> <li>1C51.1, Intermediate Range Nuclear Instrument N-35 – HIGH</li> <li><u>IF</u> &lt;10% power (P-10), <u>THEN</u>:</li> <li>A. Indicator for N-35 fails high.</li> <li>B. Reactor Trip Breakers OPEN.</li> <li>C. Annunciator 47017-0203, INTERMEDIATE RANGE HI FLUX LVL</li> </ul>			
	REACTOR TRIP. D. Red status light on for Intermediate Range Reactor Trip.			
Standard:	Verifies that N-35 is failed high, verifies OPEN reactor trip breakers, verifies 47017-0203 is lit, verifies the red status light is on for Intermediate Range Reactor Trip.			
Performance:				
Comments:	mments:			

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NI-4SF-1, N35 FAILURE HIGH WITH FAILURE OF REACTOR TO TRIP, REV	2

Performance Step: Critical <u>N</u>	<ul> <li>Step 1</li> <li><u>IF</u> initially in Mode 1, Power Operation below P-10 setpoint, <u>OR</u> in Mode 2, Startup, <u>THEN</u> perform the following:</li> <li>A. Select NR-45 recorder to Source Range for failed IR channel.</li> </ul>
Standard:	Selects the NR-45 recorder to a Source Range Instrument
Performance:	
Comments:	

Performance Step: Critical <u>Y</u>	Step 1B. <u>WHEN</u> power decreases to Source Range, <u>THEN</u> manually reinstate Source Range instruments by momentarily placing both SOURCE RANGE RESET/BLOCK switches to the "RESET" position.
Standard:	Both SOURCE RANGE RESET/BLOCK switches are taken to the RESET position.
Performance:	
Comments:	

Performance Step: Critical N	Step 1C. Refer to T.S. LCO 3.3.1 Condition A and Table 3.3.1-1, Functions 4, 16a.			
Standard:	Informs Shift Supervisor of the above T.S. requirements.			
Evaluator Cue:	Acknowledge these T.S. requirements and direct the trainee to continue in 1C51.1.			
Performance: Comments:				

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Performance Step: Critical <u>Y</u>	Step 2. At N-35 panel, place the Level Trip Bypass switch to "BYPA	ASS."
Standard:	Places the N-35 Level Trip Bypass switch to "BYPASS."	
Performance: Comments:		

**Terminating Cues:** When the reactor is tripped, and the actions of 1C51.1, Intermediate Range Nuclear Instrument N-35 – High, have been completed, then inform the examinee the JPM is complete.

Stop Time:

# **TURNOVER SHEET**

### **INITIAL CONDITIONS:**

- The reactor has just been taken critical per 1C1.2, and Appendix C1B. •
- ٠
- The reactor startup is complete. Power is stable at  $1X10^{-8}$  amps for shift turnover. •

# **INITIATING CUES:**

The SS directs you to respond to plant conditions •

#### NI-4SF-1, N35 FAILURE HIGH WITH FAILURE OF REACTOR TO TRIP, REV 2

# Simulator Setup (as required):

- Reset simulator to IC-18.
- Enter malfunctions as specified by the simulator input summary.
- Ensure reactor power is stable at 1E-8 amps.
- Place simulator in freeze.
- Once operator takes the duty place simulator in "Run".
- Insert Trigger 1 when instructed by the evaluator.

SIMULATOR INPUT SUMMARY							
Manual Trigger	Туре	Code	Description	Delay	Ramp	Severity Or Value	Event Trigger
0	MALF	RP02A	Reactor fails to automatically trip				0
0	MALF	RP02B	Reactor fails to automatically trip				0
1	MALF	NI03A	N-35 Failure High			99	1

#### NI-4SF-1, N35 FAILURE HIGH WITH FAILURE OF REACTOR TO TRIP, 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.

REV	IEW 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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

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

<b>¿ Xcel</b> Energy [™]	JOB PERFORMANCE MEASU	JRE (JPM)
SITE:	Prairie Island	
JPM TITLE:	RESPOND TO A PRESSURIZER LEV	VEL CHANNEL FAILING LOW
JPM NUMBER:	PS-3 REV.	4
RELATED PRA INFORMATION:	None	
TASK NUMBERS / TASK TITLE(S):	CRO 011 ATI 00 00 001 / RESPONSE	E TO PRZR LEVEL INSTRUMENT FAILURE
K/A NUMBERS:	011 A2.11 (3.4/3.6)	
APPLICABLE METHOD O	F TESTING:	
EVALUATION LOCATION	Discussion: Simulate/w In-Plant: X Simulator: X Lab: 12 Minutes	valkthrough:       Perform:       X         Control Room:
Alternate Path:	<u>NO</u>	
	SRO: X RO: X N	
Additional site-specific sign	latures may be added as desired.	
Developed by:	Mike Fish	11/17/09
	Developer	Date
Validated by:	John DuBose	12/30/09
(	Validator See JPM Validation Checklist, Attachm	Date ent 1)
Approved by:	Training Supervisor	Date

JPM Number:	_PS-3
JPM Title:	RESPOND TO A PRESSURIZER LEVEL CHANNEL FAILING LOW
Examinee:	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.

PS-3, RESPOND TO A PRESSURIZER LEVEL CHANNEL FAILING LOW, REV 4

#### JPM BRIEFING/TURNOVER

#### Use NUREG-1021, Appendix E, for JPM Briefing

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:**

• Steady state with all controls in auto.

### **INITIATING CUES:**

- You are the RO
- The LPEO and SS are out of the Control Room
- You are to respond to plant conditions as necessary.

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PS-3, RESPOND TO A PRESSURIZER LEVEL CHANNEL FAILING LOW, REV 4

#### JPM PERFORMANCE INFORMATION

Required Materials:	None
General References:	1C51.3, C47012, NF-40780-2
Task Standards:	Pressurizer level channel 428 removed from service per 1C51.3.
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 <u>N</u>	47012-0507, PRZR LEVEL DEVIATION Step 1 Check all pressurizer level channels.
Standard:	Check all pressurizer level channels LI-426, 427, and 428 and diagnose that LI-428 has failed low. Candidate might place charging pump speed in manual and adjust speed to control pressurizer level as part of plant stabilization.
Performance:	
Comments:	

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PS-3, RESPOND TO A PRESSURIZER LEVEL CHANNEL FAILING LOW, REV	/ 4

Performance Step: Critical <u>N</u>	<ul> <li>Step 2</li> <li>If actual pressurizer level deviation exists, THEN perform the following:</li> <li>A. Verify charging pump in automatic and charging flow proper for the level.</li> <li>B. If necessary, THEN place charging pump speed control in "MANUAL".</li> <li>C. Control charging pump speed as necessary to restore pressurizer level to programmed level.</li> </ul>	
Standard:	1HC-428A placed in manual, manual pot adjusted to restore seal injection and pressurizer level to normal.	
Performance:		
Comments:		

Performance Step: Critical <u>N</u>	Step 3 If due to an instrument failure, THEN refer to 1C51, INSTRUMENT FAILURE GUIDE – UNIT 1.
Standard:	Enter 1C51.3, INSTRUMENT FAILURE GUIDE, for Pressurizer Level 1L-428 – Low.
Performance: Comments:	SATISFACTORY  UNSATISFACTORY

Performance Step: Critical <u>N</u>	<ul> <li>1C51.3, INSTRUMENT FAILURE GUIDE, for Pressurizer Level 1L-428 – Low.</li> <li>Step 1</li> <li>If the Blue channel is selected on the PRZR Level Control Selector Switch, THEN:</li> <li>A. If necessary, THEN place charging pump speed control in "MANUAL" and adjust pressurizer level to setpoint.</li> </ul>
Standard:	1HC-428A placed in manual, manual pot adjusted to restore seal injection and pressurizer level to normal. (Might have been already completed)
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌

QF-1075-01 Rev. 2 (FP-T-S	SAT-75) Page	e 6 of 6			
PS-3, RESPO	PS-3, RESPOND TO A PRESSURIZER LEVEL CHANNEL FAILING LOW, REV 4				
Performance Step: Critical <u>Y</u>	Step 1 B. Select position "2-1" (WHITE-RED) on the PRZR Level ( Switch.	Control Selector			
Standard:	CS-46291 placed in the 2-1 position.				
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌				
Comments:					

Performance Step: Critical <u>Y</u>	Step 1 C. Restore pressurizer heaters.
Standard:	Cycling heaters will be energized. Backup heaters will be placed in auto.
Evaluator Note:	The pressurizer backup heaters C/S's are required to be placed in the "OFF" position for approximately 10-15 seconds to reset.
Performance:	
Comments:	

**Terminating Cues:** When pressurizer heaters are restored this JPM is complete.

Stop Time:

# **TURNOVER SHEET**

### **INITIAL CONDITIONS:**

• Steady state with all controls in auto.

# **INITIATING CUES:**

- You are the RO
- The LPEO and SS are out of the Control Room
- You are to respond to plant conditions as necessary.

#### QF-1075-01 Rev. 2 (FP-T-SAT-75)

### PS-3, RESPOND TO A PRESSURIZER LEVEL CHANNEL FAILING LOW, REV 4

# Simulator Setup:

- Reset to IC-10 or Any At Power IC.
- Check Alarms are ON
- Enter simulator input summary data.
- Place simulator in "Run" when student is ready to assume to Duty
- Enter trigger 1 when requested by evaluator.

SIMULATOR INPUT SUMMARY							
Manual Trigger	Туре	Code	Description	Delay	Ramp	Severity Or Value	Event Trigger
1	SYS OVRD	RX 206	1 PRZR (CHNL111-BLUE) LVL XMTR (1LT-428)			0	

# PS-3, RESPOND TO A PRESSURIZER LEVEL CHANNEL FAILING LOW, REV 4 ATTACHMENT 1

#### JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

REV	IEW 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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

<b>W</b> Xcel Energy	JOB PERFORMANCE MEASURE (JPM)	
SITE:	Prairie Island	
JPM TITLE:	LOWER PRT LEVEL	
JPM NUMBER:	RC-22SF-1 <b>REV.</b> 2	
RELATED PRA INFORMATION:	None	
TASK NUMBERS / TASK TITLE(S):	CRO 002 ATI 00 00 005 / RAISE/LOWER PRT LEVE	EL
K/A NUMBERS:	007 A1.01 (2.9/3.1)	
APPLICABLE METHOD	OF TESTING:	
	Discussion: Simulate/walkthrough:	Perform:
EVALUATION LOCATION	N: In-Plant: Control Room	:
	Simulator: X Other:	
	Lab:	
Time for Completion	on: <u>10</u> Minutes Time Critica	l: <u>NO</u>
Alternate Path:	YES	
TASK APPLICABILITY:	SRO: X RO: X NLO	
Additional site-specific sig	natures may be added as desired.	
Developed by:	Mike Fish	11/18/09
	Developer	Date
Validated by:	John DuBose	12/30/09
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	Training Output	Data
	I raining Supervisor	Date

### RC-22SF-1, LOWER PRT LEVEL, REV 2

JPM Number:	RC-22SF-1				
JPM Title:	LOWER PRT LEVEL				
Examinee:		I	Evaluator:		
Job Title:			Date:		
Start Time		Fi	nish 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.

#### QF-1075-01 Rev. 2 (FP-T-SAT-75)

#### RC-22SF-1, LOWER PRT LEVEL, REV 2

#### Page 3 of 3

#### JPM BRIEFING/TURNOVER

#### Use NUREG-1021, Appendix E, for JPM Briefing

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:**

- PZR RELIEF TNK HI TEMP/LVL/PRESS OR LO LVL (47012-0406) alarm is in.
- You are the Unit 1 Lead Reactor Operator.

## INITIATING CUES (IF APPLICABLE):

• The SS directs you to lower PRT level to 72% per 1C4, starting at step 5.1.1.

#### RC-22SF-1, LOWER PRT LEVEL, REV 2

#### JPM PERFORMANCE INFORMATION

Required Materials:	None
General References:	1C4, REACTOR COOLANT SYSTEM
Task Standards:	Lower PRT level to approximately 72% using 12 RCDT pump per 1C4
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 <u>N</u>	1C4, REACTOR COOLANT SYSTEM Step 5.1.1 Lowering PRT Level A. Ensure PRT pressure is approximately 6 psig.
Standard:	Candidate verifies PRT pressure is approximately 6 psig.
Performance: Comments:	

Performance Step: Critical <u>Y</u>	Step 5.1.1 B. Open CV-31323, PRZR RELIEF TNK DRN, using CS-46268 to reduce the level in the PRT.
Standard:	Candidate opens CV-31323 using CS-46268
Performance: Comments:	

QF-1075-01 Rev. 2 (FP-T-SAT-75)		Page 5 of 5				
	RC-22SF-1, LOWER PRT LEVEL, REV 2					
Performance Step: Critical <u>N</u>	Step 5.1.1 C. Verify 11 RCDT pump starts when CV-31323 indicates fu	Illy open.				
Standard:	Candidate determines 11 RCDT pump does NOT start.					
Evaluator Note:	The pump is simulated to trip on overload.					
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌					

Performance Step: Critical <u>N</u>	Step 5.1.1 D. Verify PRT level decreases at approximately 1%/min
Standard:	Candidate verifies PRT level is NOT decreasing using control board or ERCS indication.
Evaluator Note:	The PRT level will not decrease due to the pump NOT starting.
Performance: Comments:	

Performance Step: Critical <u>N</u>	<ul> <li>Step 5.1.1</li> <li>E. If 11 RCDT Pump is not operating properly, THEN perform the following</li> <li>1. Place CS-46353, 11 RCDT PUMP, in PULLOUT.</li> </ul>
Standard:	CS-46353, 11 RCDT PUMP, placed PULLOUT.
Performance: Comments:	

RC-22SF-1, LOWER PRT LEVEL, REV 2

Performance Step: Critical <u>Y</u>	Step 5.1.1.E 2. Start 12 RCDT PUMP using CS-46354.
Standard:	Candidate places CS-46354 to Start
Performance: Comments:	

Performance Step: Critical <u>Y</u>	<ul> <li>Step 5.1.1.E</li> <li>3. When PRT level decreases to ABOUT 72% as indicated on LI-41078, then CLOSE CV-31323, PRZR RELIEF TNK DRN, using CS-46268</li> </ul>
Standard:	Candidate CLOSES CV-31323 using CS-46268. The RCDT low level alarm comes in at 71.5%. Causing the RCDT low level alarm to come in has no affect on completing this JPM.
Performance: Comments:	SATISFACTORY  UNSATISFACTORY

Terminating Cues:Candidate has lowered RCDT level to approximately 72% using 12 RCDT pump and<br/>CV-31323, PRZR RELIEF TNK DRN is CLOSED. This JPM is Complete.

Stop Time:

# TURNOVER SHEET

# **INITIAL CONDITIONS:**

- PZR RELIEF TNK HI TEMP/LVL/PRESS OR LO LVL (47012-0406) alarm is in.
- You are the Unit 1 Lead Reactor Operator.

# INITIATING CUES (IF APPLICABLE):

• The SS directs you to lower PRT level to 72% per 1C4, starting at step 5.1.1.

## RC-22SF-1, LOWER PRT LEVEL, REV 2

#### Page 8 of 8

# Simulator Setup :

- Reset simulator to IC-10 OR ANY At Power IC.
- Place simulator in "RUN".
- Fill the PRT using 1C4 step 5.3.5 until level is 77%.
- Verify C47012-0406, PRT HI Level alarm is in.
- Insert relative order 0 action.
- Place simulator in "Freeze".
- Place simulator in "RUN" when directed by evaluator.
- When operator opens CV-31323 PRZR RELIEF TNK DRN, REMOVE OVRD DI-46353G to make green light go out.

SIMULATOR INPUT SUMMARY						
Manual Trigger	System or Panel Drawing	Туре	Code	Description	Severity Or Value	Event Trigger
0	SIMWD01	Remote	WD11 1	11/12 RCDT Pump Discharge Throttle Valves.	10	
0	B1-B31	OVRD	LO- 46353 G	11 RCDT PUMP CONTROL SWITCH GREEN LIGHT ON	ON	
0	B1-B31	OVRD	DI- 46353 P	11 RCDT PUMP TO PTL	TRUE	
1	B1-B31	OVRD	LO- 46353 G	11 RCDT PUMP CONTROL SWITCH GREEN LIGHT ON	REMOVE/ OFF	
# RC-22SF-1, LOWER PRT LEVEL, 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			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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

<b>? Xcel</b> Energy [*]	JOB PERFORMANCE MEASURE (JPM)				
SITE:	Prairie Island				
JPM TITLE:	Placing Excess Letdow	n In Service			
JPM NUMBER:	VC-103	REV.	0		
RELATED PRA INFORMATION:	None				
TASK NUMBERS / TASK TITLE(S):	CRO 004 ATI 00 00 005	LOSS OF L	ETDOWN FLOW	TO THE VCT	
K/A NUMBERS:					
APPLICABLE METHOD	OF TESTING:				
	Discussion:	Simulate/wa	alkthrough:	Perform:	Х
EVALUATION LOCATIO	N: In-Plant:		Control Room:		
	Simulator:	X	Other:		
	Lab:				
Time for Completi	on: <u>8</u> Minutes		Time Critical:	NO	
Alternate Path:	NO				
TASK APPLICABILITY:	SRO: X RO:	XNI	_0		
Additional site-specific sig	gnatures may be added as	desired.			1
Developed by:	Mike Fis	า		2/25/10	
	Develope	r		Date	
Validated by:	John DuBo	ose		2/25/10	
	Validator (See JPM Validation Check	list. Attachme	ent 1)	Date	
Approved by:	Training Supe	rvisor		Date	-
				2010	_

JPM Number:	VC-103	_	
JPM Title:	Placing Excess Letdown in Serv	ce	
Examinee:		Evaluator:	
Job Title:		_ Date:	
Start Time		Finish Time	
PERFORMANCE	RESULTS: SA	.T:	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.

#### JPM BRIEFING/TURNOVER

#### Use NUREG-1021, Appendix E, for JPM Briefing

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.
- A loss of normal letdown flow has occurred due to CV-31226, LETDOWN LINE ISOL, failing closed.
- The crew has entered 1C12.1 AOP3, LOSS OF LETDOWN FLOW TO THE VCT, and has completed the procedure up to step 2.4.8.
- You are the extra Reactor Operator.

### **INITIATING CUES:**

• The Unit 1 Shift Supervisor directs you to place excess letdown in service IAW 1C12.1 AOP3, starting at step 2.4.8.

#### JPM PERFORMANCE INFORMATION

Required Materials:	1C12.1 AOP3, LOSS OF LETDOWN FLOW TO THE VCT
General References:	1C12.1 AOP3, LOSS OF LETDOWN FLOW TO THE VCT
Task Standards:	Place excess letdown in service

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	1C12.1 AOP3, LOSS OF LETDOWN FLOW TO THE VCT Step 2.4.8
	Initiate CC flow through Excess Letdown Heat Exchanger by OPENING MV-32095, 11 EXCESS LTDN HX CC INLT/OUTL
Standard:	Candidate opens MV-32095 using CS-46030
Performance:	
Comments:	

Performance Step: Critical N	Step 2.4.9 Establish Excess Letdown flow to the VCT
	A. Position CV-31333, EXCESS LTDN DIVERT TO RCDT to the "V.C. TK" position.
Standard:	Candidate VERIFIES CV-31333 to the "V.C. TK" position using CS-46169
Performance:	
Comments:	

Performance Step: Critical Y	Step 2.4.9 Establish Excess Letdown flow to the VCT
	B. Open CV-31330, EXCESS LTDN HX INLT.
Standard:	Candidate OPENS CV-31330 using CS-46168
Performance:	
Comments:	
Performance Step: Critical Y	Step 2.4.9 Establish Excess Letdown flow to the VCT
	C. Slowly OPEN CV-31210, EXCESSLTDN FLOW CONT.
Standard:	Candidate OPENS CV-31210 using 1HC123
Performance:	
Comments:	

Performance Step: Critical N	Step 2.4.10 Monitor pressurizer level, adjusting Excess Letdown flow as needed with CV-31210.
Standard:	Candidate monitors pressurizer level and adjusts flow as necessary.
Performance: Comments:	

Terminating Cues: This JPM is complete when excess letdown flow is established.

Stop Time:

# TURNOVER SHEET

### **INITIAL CONDITIONS:**

- Unit 1 is at 100% power.
- A loss of normal letdown flow has occurred due to CV-31226, LETDOWN LINE ISOL, failing closed.
- The crew has entered 1C12.1 AOP3, LOSS OF LETDOWN FLOW TO THE VCT, and has completed the procedure up to step 2.4.8.
- You are the extra Reactor Operator.

#### **INITIATING CUES:**

• The Unit 1 Shift Supervisor directs you to place excess letdown in service IAW 1C12.1 AOP3, starting at step 2.4.8.

# Simulator Setup:

- Reset to IC-10 or any at power IC.
- Place simulator in Run.
- Remove normal letdown from service using 1C12.1 AOP3 up the step 2.4.8. DO NOT PLACE EXCESS LETDOWN IN SERVICE
- Place simulator in FREEZE.
- When the candidate is ready to perform the JPM place the simulator in RUN.

#### **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			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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date

<b>O Xcel</b> Energy ⁼	JOB PERFORMANCE MEASURE (JPM)		
SITE:	Prairie Island		
JPM TITLE:	BORATE UNIT 1 RCS FROM OUTSIDE THE CONT	ROL ROOM	
JPM NUMBER:	VC-16 <b>REV.</b> 13		
RELATED PRA INFORMATION:	None		
TASK NUMBERS / TASK TITLE(S):	CRO 004 ATI 00 00 021 / LOCALLY BORATE RCS		
K/A NUMBERS:	068 AA1.11 (3.9/4.1)		
APPLICABLE METHOD O	F TESTING:		
	Discussion: Simulate/walkthrough:	X Perform:	
EVALUATION LOCATION	: In-Plant: X Control Room	:	
	Simulator: Other:		
	Lab:		
Time for Completior	n: <u>10</u> Minutes Time Critica	l: <u>NO</u>	
Alternate Path: NO			
TASK APPLICABILITY:	SRO: X RO: X NLO X		
Additional site-specific signatures may be added as desired.			
Developed by:	Mike Fish	11/17/09	
	Developer	Date	
Validated by:	John DuBose	1/11/10	
(	Validator See JPM Validation Checklist, Attachment 1)	Date	
Approved by:	Training Supervisor	Date	

JPM Number:	VC-16
JPM Title:	BORATE UNIT 1 RCS FROM OUTSIDE THE CONTROL ROOM
Examinee:	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.

#### QF-1075-01 Rev. 2 (FP-T-SAT-75)

#### VC-16, BORATE UNIT 1 RCS FROM OUTSIDE THE CONTROL ROOM, REV 13

#### JPM BRIEFING/TURNOVER

#### Use NUREG-1021, Appendix E, for JPM Briefing

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.

#### "ALL OPERATOR ACTIONS ARE TO BE SIMULATED UNLESS DIRECTED OTHERWISE."

#### **INITIAL CONDITIONS:**

- The Control Room has been evacuated.
- 1C1.3 AOP1, Shutdown From Outside the Control Room Unit 1, is in progress.
- The SS has determined that a 50 minute boration is required.

#### **INITIATING CUES:**

The Unit 1 SS directs you to borate the RCS for 50 minutes per 1C1.3 AOP1, step 2.4.30, beginning at substep F.

QF-1075-01 Rev. 2 (FP-T-SAT-75)

VC-16, BORATE UNIT 1 RCS FROM OUTSIDE THE CONTROL ROOM, REV 13

#### JPM PERFORMANCE INFORMATION

Required Materials:	Copy of 1C1.3 AOP1, pages 15-16 with steps A-E completed.
General References:	1C1.3 AOP1, Shutdown From Outside The Control Room – Unit 1
Task Standards:	Emergency Boration of the RCS is completed from the Boric Acid Blender Area per 1C1.3 AOP1.
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 <u>Y</u>	<ul> <li>1C1.3 AOP1, SHUTDOWN FROM OUTSIDE THE CONTROL ROOM – UNIT 1 Step 2.4.30</li> <li>F. Perform the following at the Emergency Boration Valve MV-32086 Local Control Panel.</li> <li>1. Place CS-19580, EMERG BOR TO CHG PMPS ISOL MV-32086</li> <li>I. CL / REM in "LOCAL "</li> </ul>
Standard:	CS-19580 located and placed in "LOCAL."
Evaluator Cue:	If asked, state that power is available. Indicate CS-19580 is in "LOCAL".
Performance: Comments:	SATISFACTORY 🗌 UNSATISFACTORY 🗌

VC-16 BORATE UNIT	1 RCS FROM	OUTSIDE THE	CONTROL	ROOM	<b>REV 13</b>
VC-10, DORATE UNIT	I KC3 FKUW	OUTSIDE THE	CONTROL		REV 13

Performance Step: Critical <u>Y</u>	Step 2.4.30 F. Perform the following at the Emergency Boration Valve MV-32086 Local Control Panel 2. Place CS-19581, EMERG BOR TO CHG PMPS ISOL MV-32086, in "OPEN."
Standard:	CS-19581 located and placed in "OPEN."
Evaluator Cue:	Indicate CS-19581 has been placed in "OPEN".
Performance: Comments:	

Performance Step:	Step 2.4.30
Critical <u>Y</u>	F. Perform the following at the Emergency Boration Valve MV-32086 Local
	Control Panel
	3. Locally throttle VC-11-58, EMERG BOR TO CHG PMP SUCT
	THROTTLE VLV, to obtain 12 gpm as indicated on local flowmeter
Standard:	VC-11-58 has been throttled to obtain 12 gpm on 1FI-113. Candidate will need to
	open the valve to adjust flow from 10 to 12 gpm. Timing of boric acid addition is
	started.
Evaluator Cue:	Indicate that initial flow is 10 gpm on flow meter. After throttling VC-11-58, inform
	When timing is begun, inform operator that 50 minutes has elapsed
	when timing is begun, inform operator that 50 minutes has elapsed.
Performance:	SATISFACTORY 🗌 UNSATISFACTORY 🗌
Comments:	

Performance Step:	Step 2.4.30
Critical N	F. Perform the following at the Emergency Boration Valve MV-32086 Local
	Control Panel
	4. When the desired amount of boric acid has been added, place CS-19581,
	EMERG BOR TO CHG PMPS ISOL MV-32086, in "CLOSE."
Standard:	CS-19581 placed in CLOSE.
Evaluator Cue:	Indicate CS-19581 has been placed in "CLOSE".
	Flow meter reads 0 gpm.
Performance:	
Commonto	
comments:	
Termineting Cues	This IDM is complete when Emergency Deretion of the DCC is completed from the
rerminating Cues:	This JPW is complete when Emergency Boration of the RCS is completed from the Rcs is completed from the
ſ	DUITE ACTU DIETIUEL ATEA PEL TO 1.3 AUF 1.

Stop Time:

# **TURNOVER SHEET**

## "ALL OPERATOR ACTIONS ARE TO BE SIMULATED UNLESS DIRECTED OTHERWISE."

# **INITIAL CONDITIONS:**

- The Control Room has been evacuated.
- 1C1.3 AOP1, Shutdown From Outside the Control Room Unit 1, is in progress.
- The SS has determined that a 50 minute boration is required.

#### **INITIATING CUES:**

The Unit 1 SS directs you to borate the RCS for 50 minutes per 1C1.3 AOP1, step 2.4.30, beginning at substep F.

# VC-16, BORATE UNIT 1 RCS FROM OUTSIDE THE CONTROL ROOM, REV 13 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 pa	age filled in correctly?			
2. Has the JPM been reviewed	I 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 a	ccurately reflect trainee's actions in			
accordance with plant proce	dures?			
5. Is the standard for each per	formance item specific as to what			
controls, indications and ran	ges are required to evaluate if the			
trainee properly performed t	he step?			
6. If the task is NOT time critic	al, has the completion time been			
established based on valida	tion data or incumbent experience?			
7. If the task is time critical, is	he time critical portion based upon			
actual task performance req	uirements?			
8. Is the Licensee level approp	riate 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	s been identified and typed (Critical /			
Sequence / Time Critical) ap	propriately?			
11. Have all special tools and e	quipment needed to perform the task			
been identified?				
12. Are all references identified,	current, and accurate?			
13. Have all required cues (as a	nticipated) been identified for the			
evaluator to assist task com	pletion?			

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.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date