Point Beach Nuclear Plant

JOB PERFORMANCE MEASURE (JPM)

RO Admin JPM a.

JPM TITLE: Perform Control Room Reactor Startup Checklist

JPM NUMBER: Admin JPM (RO) a REV. 0

RELATED PRA INFORMATION: None

TASK NUMBERS / TASK TITLE(S): PBN P001.001.COT / Perform Mode Change Checklist for Reactor Startup

K/A NUMBERS: 2.1.31 (4.6/4.3)

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path: YES

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

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

INITIAL CONDITIONS:

- You are the Unit 1 BOP.
- A Reactor Startup is about to be commenced on Unit 1.
- CL-2E, Mode 3 to Mode 2 checklist has been completed.
- Unit 1 Boron Concentration is 1409 PPM.
- Unit 1 Letdown Gas stripper is offline.
- 'A' BAST = 3.75% boric acid

INITIATING CUES:

- You have been assigned to perform Control Room Portion of Section 1.0 of PBF-2140, Control Room Reactor Startup Checklist.

Job Performance Measure (JPM)

JPM PERFORMANCE INFORMATION

Required Materials:	Form PBF-2140, Control Room Reactor Startup Checklist Blender 4.0 U1
General References:	OP-1B, Reactor Startup PBF-2140 Control Room Reactor Startup Checklist Blender Book
Task Standards:	The three safety related critical items out of the five items, which are out of required position, are identified and recorded on PBF-2140, Control Room Reactor Startup Checklist.

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: 1 Critical Y	Identify discrepancy between RX Makeup Water Flow controller setting and Boric Acid Flow controller setting.
Standard:	Identify that the settings of the RMUW flow controller and Boric Acid flow controller are not correct when compared with one another. Per Blender 4.0 U1, the expected settings ratio would be 40 / 11 (RX Makeup / Boric Acid).
Evaluator Note:	**Per the NOTE at the top of PBF-2140, the checklist does NOT allow repositioning of equipment without authorization.** **As left settings: _____ GPM Water, _____GPM Boric Acid_** **For a RX Makeup setting of 40 GPM, Boric Acid should be set at ~10.86 GPM. (10-11.5 GPM acceptable)**
Evaluator Cue:	**If examinee notifies supervision of the settings, direct examinee to establish required controller settings for auto-makeup.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 2 Critical Y	Identify discrepancy with HC-624 HX-11A RHR HX Outlet Flow Controller.
Standard:	Examinee identifies controller set for 16% instead of the required 0%.
Evaluator Note:	**Per the NOTE at the top of PBF-2140, the checklist does NOT allow repositioning of equipment without authorization.** **Controller set to wrong position and status lights indicate valve out of position as well.** **Reference AR#01180107, actual event that happened in the plant.**
Evaluator Cue:	**If examinee notifies supervision of the settings, direct examinee to establish required controller settings per checklist.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 3 Critical N	Identify discrepancy for HC-133 RHR to Letdown Flow Controller.
Standard:	Examinee identifies controller set for 25% instead of the required 0%.
Evaluator Note:	**Per the NOTE at the top of PBF-2140, the checklist does NOT allow repositioning of equipment without authorization.** **Reference AR#00144877, actual event that happened in the plant.**
Evaluator Cue:	**If examinee notifies supervision of the settings, direct examinee to establish required controller settings per checklist.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Job Performance Measure (JPM)

Performance Step: 4 Critical Y	Identify HC-466, SG A Main Feed Reg Valve controller in AUTO and set wrong.
Standard:	Identify HC-466 is in AUTO vice MANUAL and set for 40.
Evaluator Note:	**Per the NOTE at the top of PBF-2140, the checklist does NOT allow repositioning of equipment without authorization.** **Reference AR#00460396, actual event that happened in the plant.**
Evaluator Cue:	**If examinee notifies supervision of controller in AUTO and set for 40, direct examinee to place controller in MANUAL and set for 0 as requested.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 5 Critical N	Identify PC-2273 LP FWH Bypass Controller, set in MANUAL and too low of a setting.
Standard:	Identify that PC-2273 is set in MANUAL vice AUTO and too low of a setting.
Evaluator Note:	**Per the NOTE at the top of PBF-2140, the checklist does NOT allow repositioning of equipment without authorization.**
Evaluator Cue:	**If examinee notifies supervision of incorrect setting, direct examinee to place PC-2273 LP FWH bypass controller, in AUTO and proper setting as requested.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Job Performance Measure (JPM)

Performance Step: 6 Critical N	When Control Room portion of Section 1.0 is completed, JPM may be terminated after local check of AF-4000 and AF-4001, Turbine Driven Aux Feed Pump discharge throttle valves, is requested.
Standard:	Request AO to check local valve position for AF-4000 and AF-4001.
Evaluator Cue:	**This completes the JPM.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Terminating Cues: This completes the JPM.

Stop Time: _____

Job Performance Measure (JPM)

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 BOP.
- A Reactor Startup is about to be commenced on Unit 1.
- CL-2E, Mode 3 to Mode 2 checklist has been completed.
- Unit 1 Boron Concentration is 1409 PPM.
- Unit 1 Letdown Gas stripper is offline.
- 'A' BAST = 3.75% boric acid

INITIATING CUES:

- You have been assigned to perform Control Room Portion of Section 1.0 of PBF-2140, Control Room Reactor Startup Checklist.

Point Beach Nuclear Plant

Job Performance Measure (JPM)

JPM TITLE:	Review Control Room Reactor Startup Checklist
JPM NUMBER:	Admin JPM a (SRO) REV. 0
RELATED PRA INFORMATION:	None
TASK NUMBERS / TASK TITLE(S):	PBN P119.210.SRO Review Operating Logs for Trends and Out-of-Specification Conditions
K/A NUMBERS:	2.1.18 (3.6/3.8)

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [ ] Other: [X]

Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path: YES

Job Performance Measure (JPM)

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

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

INITIAL CONDITIONS:

- You are the Unit 1 OS.
- A Reactor Startup is about to be commenced on Unit 1.
- CL-2E, Mode 3 to Mode 2 checklist has been completed.
- The Unit 1 BOP has just completed PBF-2140, Control Room Reactor Startup Checklist.

INITIATING CUES:

- You have been assigned by the Shift Manager to review the attached PBF-2140, Control Room Reactor Startup Checklist, prior to startup.
- Inform the Shift Manager if any actions are required prior to continuing Unit 1 startup.

Job Performance Measure (JPM)

JPM PERFORMANCE INFORMATION

Required Materials:	Form PBF-2140, Control Room Reactor Startup Checklist filled out with errors.
General References:	OP-1B, Reactor Startup PBF-2140 Control Room Reactor Startup Checklist
Task Standards:	Explain how to disposition the 2 documented discrepancies noticed by the Control Operator as well as discovering 3 discrepancies not properly noted by the Control Operator.

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: 1 Critical N	HC-431H Loop B PZR Spray Controller in MANUAL and SHUT.
Standard:	Examinee reviews the out-of-position component identified by the RO, circled and noted in the remarks section. The Spray Controller can be returned to AUTO once I&C troubleshooting is completed.
Evaluator Cue:	**Ask examinee what is required to rectify the abnormal condition.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 2 Critical Y	HC-624 HX-11A RHR HX Outlet Flow Controller set to 25%
Standard:	Examinee reviews logs and identifies HC-624 not set for zero (0) and the RO failed to document the abnormal condition. The abnormal position should be documented in the remarks section and HC-624 should be changed to zero (0).
Evaluator Cue:	**Ask examinee what is required to rectify the abnormal condition.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 3 Critical Y	HC-488 SG A Feed Reg Valve Controller is in AUTO set for 40.
Standard:	Examinee reviews logs and identifies HC-466 not in MANUAL set for 0 and the RO failed to document the abnormal condition. The abnormal position should be documented in the remarks section and HC-466 should be placed in MANUAL and shut.
Evaluator Cue:	**Ask examinee what is required to rectify the abnormal condition.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 5 Critical N	P-29 AFP SGBD Isolation Defeat Switch is ON.
Standard:	Examinee reviews logs and identifies P-29 AFP SGBD Isolation Defeat Switch is ON and the RO documented the abnormal condition. AFP SGBD Isolation Switch can be placed back to OFF.
Evaluator Cue:	**Ask examinee what is required to rectify the abnormal condition.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 6 Critical Y	PC-4019 P-38B AFP Disch Press Controller set for 1000.
Standard:	Examinee reviews logs and identifies PC-4019 is incorrectly set for 1000 and the RO failed to document the abnormal condition. PC-4019 should be adjusted to 1200.
Evaluator Cue:	**Ask examinee what is required to rectify the abnormal condition.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 7 Critical N	Examinee informs Shift Manager review of Control Room Reactor Startup Checklist is complete.
Standard:	Examinee gives the Shift Manager the review results and any actions taken.
Evaluator Cue:	**Acknowledge the report and this completes the JPM.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Terminating Cues: This completes the JPM.

Stop Time: _____

CONTROL ROOM REACTOR STARTUP CHECKLIST

Date: TODAY
Unit: 1

NOTE: ***This checklist does NOT authorize repositioning of any equipment. Repositioning of equipment must be evaluated and authorized by Shift Management.***

NOTE: ***Required positions assume normal conditions with Tavg equal to 547°F.***

1.0 CHECK that the equipment in the following table is in its required position:

EQUIP ID	DESCRIPTION	REQUIRED	√ OR ACTUAL POSITION	INITIALS
		C-04		
T-1A	PZR Heater Backup Group A	AUTO or ON	AUTO	
T-1B	PZR Heater Backup Group B	AUTO or ON	AUTO	
T-1C	PZR Heater Backup Group C	AUTO or ON	AUTO	
T-1D	PZR Heater Backup Group D	AUTO or ON	ON	
T-1E	PZR Heater Control Group E	AUTO or MID (U2 only)	AUTO	
HC-431C	Loop A PZR Spray Controller	AUTO	AUTO	
HC-431K	Pressurizer Press Controller	AUTO	AUTO	
		Setpoint - 2235	2235	
HC-431H	Loop B PZR Spray Controller	AUTO	MANUAL - SHUT	
HC-142	Charging Line Flow Controller	Setpoint -As Required to Maintain Labyrinth Seal ΔP > 20 inches	✓	
Note 1: Check that 2 charging pumps are running with one in AUTO and the other in MANUAL. Circle position of Auto/Manual switch in "Required" column.				
HC-428A	P-2A Chg Pump Speed Controller (Note 1)	Switch: (AUTO) / MANUAL	AUTO	
HC-428B	P-2B Chg Pump Speed Controller (Note 1)	Switch: AUTO / (MANUAL)	MANUAL	
HC-428C	P-2C Chg Pump Speed Controller (Note 1)	Switch: AUTO / (MANUAL)	MANUAL	
HC-130	Nonregen HX Letdown Outlet Temp Ctlr	AUTO	AUTO	
		Setpoint - 110	110	
HC-135	LP Letdown Line Pressure Controller	AUTO	AUTO	
		Setpoint - 250	250	
HC-111	RX Makeup Water Flow Controller	AUTO	AUTO	
		Setpoint - Per Blender Book	✓	
HC-110	Boric Acid Flow Controller	AUTO	AUTO	
		Setpoint - Per Blender Book	✓	
	Reactor Makeup Switch	Red Light - ON	ON	
	Reactor Makeup Mode Selector Switch	AUTO	AUTO	

CONTROL ROOM REACTOR STARTUP CHECKLIST

EQUIP ID	DESCRIPTION	REQUIRED	√ OR ACTUAL POSITION	INITIAL
C-03				
HC-624	HX-11A RHR HX Outlet Flow Controller	Dial - 0	25	
HC-626	HX-11A&B RHR HX Bypass Flow Ctlr	MANUAL	MANUAL	
		Output - 0	0	
HC-625	HX-11B RHR HX Outlet Flow Controller	Dial - 0	0	
HC-133	RHR to Letdown Flow Controller	Dial - 0	0	
HC-2085	MSR Steam Supply Controller	Dial - 0	0	
HC-480	SG A Feed Reg Bypass Controller	AUTO	AUTO	
HC-466	SG A Main Feed Reg Valve Controller	MANUAL	AUTO	
		Dial - 0	40	
HC-476	SG B Main Feed Reg Valve Controller	MANUAL	MANUAL	
		Dial - 0	0	
HC-481	SG B Feed Reg Bypass Controller	AUTO	AUTO	
HC-468	SG A Atmos Steam Dump Controller	AUTO	AUTO	
		Setpoint - 1050 or that maintains 547 F	1050	
HFC-484	Cond Steam Dump Controller	AUTO	AUTO	
		Setpoint - 1005	1005	
HC-478	SG B Atmos Steam Dump Controller	AUTO	AUTO	
		Setpoint - 1050 or that maintains 547 F	1050	
DTIC-2525	Heater Drain Tank Temp Controller	AUTO	AUTO	
		Setpoint - 0	0	
PC-2273	LP FWH Bypass Press Controller	AUTO	AUTO	
		Setpoint - Per Plaque	✓	
LC-2125	Condenser Hotwell Level Controller	AUTO	AUTO	
		Setpoint - 20	20	
	P-29 AFP SGBD Isolation Defeat Switch	OFF	ON (2)	

Job Performance Measure (JPM)

CONTROL ROOM REACTOR STARTUP CHECKLIST

EQUIP ID	DESCRIPTION	REQUIRED	√ OR ACTUAL POSITION	INITIALS
		C-01		
PC-4012	P-38A AFP Disch Press Controller	AUTO or MANUAL controlled by OI 62A	AUTO	
		Setpoint -1200	1200	
PC-4019	P-38B AFP Disch Press Controller	AUTO or MANUAL controlled by OI 62A	AUTO	
		Setpoint - 1200	1200	
		P-29 (Local)		
AF-4000	P-29 AFP Discharge To HX-1B SG	THROTTLED (Per Wall Plaque) 17 %	17%	
AF-4001	P-29 AFP Discharge To HX-1B SG	THROTTLED (Per Wall Plaque) 18 %	18%	

2.0 Check RMS grid all green.

3.0 **IF** any RMS is **NOT** green, then list in the table below: N/A

EQUIP ID	DESCRIPTION	CONDITION	REASON

4.0 Review the PPCS Alarm List.

5.0 List any of the above equipment **NOT** in its required alignment in the Remarks Section **AND** provide basis for why equipment is not in the required alignment.

6.0 SRO Review

Reviewed by: _____ Date _____ Time _____
Senior Reactor Operator

REMARKS: (1) HC-431H controller in MANual for I&C troubleshooting
(2) P-29 AFP SGBD Isolation defeat switch left in 'ON' from testing previous shift.

Job Performance Measure (JPM)

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 OS.
- A Reactor Startup is about to be commenced on Unit 1.
- CL-2E, Mode 3 to Mode 2 checklist has been completed.
- The Unit 1 BOP has just completed PBF-2140, Control Room Reactor Startup Checklist.

INITIATING CUES:

- You have been assigned by the Shift Manager to review the attached PBF-2140, Control Room Reactor Startup Checklist, prior to startup.
- Inform the Shift Manager if any actions are required prior to continuing Unit 1 startup.

Job Performance Measure (JPM)

JPM TITLE:	Respond to Quadrant Power Tilt in excess of Technical Specifications
JPM NUMBER:	Admin JPM b (RO) REV. 0
RELATED PRA INFORMATION:	None
TASK NUMBERS / TASK TITLE(S):	PBN P015.008.COT / Respond to Quadrant Power Tilt in excess of Technical Specifications
K/A NUMBERS:	015 K5.12 (3.2/3.6)

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path: NO

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 operating at 92% and stable following a dropped rod.
- The PPCS Excore Tilt calculations were declared inoperable in accordance with CP 312, PPCS Operability Determination, due to PPCS being out of service.
- Annunciator POWER RANGE CHANNEL DEVIATION (1C04 1A 3-3) is LIT.
- The crew has completed the first four steps of AOP 6H, Quadrant Power Tilt.

INITIATING CUES:

- The SRO directs you to perform PBF-2512, Quadrant Power Tilt Manual Calculation, in accordance with AOP-6H, Quadrant Power Tilt, Step 5.

JPM PERFORMANCE INFORMATION

Required Materials:	1. PBF 2512, Quadrant Power Tilt Manual Calculation 2. Reactor Operating Data (ROD) Book, ROD 14, Power Range Detector Calibration Currents at 100% power 3. Calculator
General References:	1. AOP-6H, Quadrant Power Tilt 2. CP 312, PPCS Operability Determination 3. PBF 2512, Quadrant Power Tilt Manual Calculation 4. Reactor Operating Data (ROD) Book, ROD 14, Power Range Detector Calibration Currents at 100% power
Task Standards:	The Examinee determines a Quadrant Power Tilt Ratio in accordance with PBF-2512, Quadrant Power Tilt Manual Calculation

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: 1 Critical Y	Column 1 Record Power Range meter readings from the 0-500 microamp scale. (Check range set at 0.5 milliamps)
Standard:	Examinee records the power range meter readings from the 0-500 microamp scale (Channels 41A, 42A, 43A, 41B, 42B, 43B, and 44B) into the DATA blocks for Column 1. Tolerance noted on attached KEY.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 2 Critical Y	Column 2 Transfer channel calibration current from ROD 14.
Standard:	The Examinee transfers the channel calibration current from ROD 14 (Channels 41A, 42A, 43A, 41B, 42B, 43B, and 44B) into the DATA blocks for Column 2.
Evaluator Note:	**The Evaluator ensures ROD 14 data is entered and available for use.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 3 Critical Y	Column 3 Calculate power for each channel (Column 1 ÷ Column 2).
Standard:	• The Examinee calculates power for each channel (Channels 41A, 42A, 43A, 41B, 42B, 43B, and 44B) by dividing the Power Range meter reading values recorded in Column 1 by the channel calibration currents from ROD 14 recorded in Column 2 and • Enters the calculated power for each channel into the DATA blocks for Column 3. Tolerance noted on attached KEY.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 4 Critical Y	Column 4 Calculate average power [(sum of Column 3) ÷ 4]
Standard:	• The Examinee calculates average power (Upper and Lower) by totaling the values recorded in Column 3 and then dividing by the number 4 and • Enters the calculated average power values into the DATA blocks for Column 4. Tolerance noted on attached KEY.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 5 Critical Y	QPTR Calculate upper and lower tilt ratio (Column 3 ÷ Column 4)
Standard:	• The Examinee calculates upper and lower tilt ratio by dividing the calculated power for each channel value recorded in Column 3 by the calculated average power recorded in Column 4 and • Enters the calculated upper and lower tilt ratio values into the DATA blocks for QPTR. Tolerance noted on attached KEY.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 6 Critical N	PPCS NTILTxU for N41A through N44A, NTILTxL for N41B through N44B.
Standard:	The Examinee may: • Leave the PPCS Column blank, or • N/A the PPCS Column and add remarks annotating that PPCS excore tilt calculations were declared inoperable, or • Record the values from PPCS.
Evaluator Note:	**PPCS Excore Tilt calculations were declared inoperable in accordance with CP 312, PPCS Operability Determination, is one of the initial conditions.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 7 Critical N	Complete the Date/Time and Performed By
Standard:	The Examinee signifies completion of the Quadrant Power Tilt Manual Calculation By: • Ensuring the Unit designator is filled in, • Completes the Date/Time and Performed By blocks and • Returns the completed form to the Evaluator
Evaluator Note:	**Upon completion of PBF-2512, provide the following cue:**
Evaluator Cue:	**The OS directs you to continue with AOP 6H, Quadrant Power Tilt, Step 5.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 8 Critical N	Check Quadrant Power Tilt – Greater than 1.02
Standard:	The Examinee determines that Quadrant Power Tilt is greater than 1.02 and proceeds to Step 6 to reduce thermal power.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Terminating Cues: This completes the JPM

Stop Time: _____

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is operating at 92% and stable following a dropped rod.
- The PPCS Excore Tilt calculations were declared inoperable in accordance with CP 312, PPCS Operability Determination, due to PPCS being out of service.
- Annunciator POWER RANGE CHANNEL DEVIATION (1C04 1A 3-3) is LIT.
- The crew has completed the first four steps of AOP 6H, Quadrant Power Tilt.

INITIATING CUES:

- The SRO directs you to perform PBF-2512, Quadrant Power Tilt Manual Calculation, in accordance with AOP-6H, Quadrant Power Tilt, Step 5.

QUADRANT POWER TILT MANUAL CALCULATION

Unit 1 SM Review KEY

NOTE: If available, then PPCS data should be recorded.
The calculation should be independently checked.
Care should be used to accurately transfer meter readings and data from ROD 14.

Detector Channel		1	2	3	4	QPTR	PPCS
Upper	41A	237	226	1.049	0.943	1.112	
	42A	226	282	0.801		0.849	
	43A	270	281	0.961		1.018	
	44A	285	296	0.963		1.021	
Lower	41B	242	250	0.968	0.905	1.069	
	42B	230	279	0.824		0.911	
	43B	264	289	0.913		1.009	
	44B	271	296	0.916		1.011	

/
Date / Time

Performed By

IV

Detector Channel		1	2	3	4	QPTR	PPCS
Upper	41A	234-240	226	1.035-1.062	0.932-0.955	± .001 for numbers used	
	42A	223-229	282	0.791-0.812		± .001 for numbers used	
	43A	267-273	281	0.950-0.972		± .001 for numbers used	
	44A	282-288	296	0.953-0.973		± .001 for numbers used	
Lower	41B	239-245	250	0.956-0.980	0.895-0.916	± .001 for numbers used	
	42B	227-233	279	0.814-0.835		± .001 for numbers used	
	43B	261-267	289	0.903-0.924		± .001 for numbers used	
	44B	268-274	296	0.905-0.926		± .001 for numbers used	

/
Date / Time

Performed By

IV

Note: This is a SOMS form and SOMS must also be revised when this form is revised.

Column	Instruction/Source
	Record Power Range meter readings from the 0-500 microamp scale. (check range set at 0.5
1.	milliamps)
2.	Transfer channel calibration current from ROD 14.
3.	Calculate power for each channel (column 1 ÷ column 2)

Note: With input from one Power Range channel inoperable AND Thermal Power ≤75% RTP, the remaining three channels can be used for calculating QPTR in column 4 as [(sum of column 3) ÷ 3]

4.	Calculate average power [(sum of column 3) ÷ 4]
QPTR	Calculate upper and lower tilt ratio (column 3 ÷ column 4)
PPCS	NTILTxU for N41A through N44A, NTILTxL for N41B through N44B

POINT BEACH NUCLEAR PLANT

POWER RANGE DETECTOR CALIBRATION CURRENTS
AT 100% POWER

UNIT 1

100% CALIBRATION CURRENTS (μA)								DATE	INITIALS
NE-41		NE-42		NE-43		NE-44			
A	B	A	B	A	B	A	B		
223	245	281	277	280	288	290	283	2 weeks ago	DDD
222	242	282	278	281	290	295	280	1 week ago	AKZ
226	250	282	279	281	289	296	296	y-day	RCB

Point Beach Nuclear Plant

Job Performance Measure (JPM)

JPM TITLE: Review Quadrant Power Tilt Manual Calculation

JPM NUMBER: Admin JPM b. SRO REV. 0

RELATED PRA INFORMATION: None

TASK NUMBERS / TASK TITLE(S): P119.223.SRO Review Completed Procedures

K/A NUMBERS:

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [X] Other: [X]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path: YES

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 operating at 92% and stable following a dropped rod.
- The PPCS Excore Tilt calculations were declared inoperable in accordance with CP 312, PPCS Operability Determination, due to PPCS being out of service.
- Annunciator POWER RANGE CHANNEL DEVIATION (1C04 1A 3-3) is LIT.
- The crew has completed the first four steps of AOP 6H, Quadrant Power Tilt.
- The Unit 2 CO and 4th RO have completed PBF-2512, Quadrant Power Tilt Manual Calculation, in accordance with AOP-6H, Quadrant Power Tilt, Step 5.

INITIATING CUES:

- The Shift Manager directs you, OS2, to perform the Shift Management review of the completed PBF-2512, Quadrant Power Tilt Manual Calculation.

JPM PERFORMANCE INFORMATION

Required Materials:	1. PBF 2512, Quadrant Power Tilt Manual Calculation (attached) 2. Reactor Operating Data (ROD) Book, ROD 14, Power Range Detector Calibration Currents at 100% power (attached) 3. Calculator
General References:	1. AOP-6H, Quadrant Power Tilt 2. CP 312, PPCS Operability Determination 3. PBF 2512, Quadrant Power Tilt Manual Calculation 4. Reactor Operating Data (ROD) Book, ROD 14, Power Range Detector Calibration Currents at 100% power
Task Standards:	The Examinee determines there are errors with PBF-2512, Quadrant Power Tilt Manual Calculation.

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: 1 Critical N	Verify column 1 Record Power Range meter readings from the 0-500 microamp scale.
Standard:	Examinee verifies recorded power range meter readings from the 0-500 microamp scale (Channels 41A, 42A, 43A, 41B, 42B, 43B, and 44B) into the DATA blocks for Column 1.
Evaluator Note:	**This JPM will not require the simulator.**
Evaluator Cue:	**If asked, inform the examinee the RO correctly filled in data for Column 1.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 2 Critical N	Verify column 2 channel calibration current data transferred from ROD 14.
Standard:	The Examinee verifies transferred channel calibration current from ROD 14 (Channels 41A, 42A, 43A, 41B, 42B, 43B, and 44B) into the DATA blocks for Column 2.
Evaluator Note:	**Data was transferred incorrectly for 44B.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 3 Critical N	Verify column 3 calculate power for each channel (Column 1 ÷ Column 2).
Standard:	• The Examinee calculates power for each channel (Channels 41A, 42A, 43A, 41B, 42B, 43B, and 44B) by dividing the Power Range meter reading values recorded in Column 1 by the channel calibration currents from ROD 14 recorded in Column 2 and • Verifies the calculated power for each channel for Column 3.
Evaluator Note:	**Calculation for channel 44B incorrect from wrong data recorded in column 2.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 4 Critical N	Verify column 4 calculate average power [(sum of Column 3) ÷ 4]
Standard:	• The Examinee calculates average power (Upper and Lower) by totaling the values recorded in Column 3 and then dividing by the number 4 and • Verifies the calculated average power values in column 4.
Evaluator Note:	**Lower average power incorrect due to previous incorrect data being recorded.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 5 Critical Y	Verify QPTR Calculate upper and lower tilt ratio (Column 3 ÷ Column 4)
Standard:	• The Examinee calculates upper and lower tilt ratio by dividing the calculated power for each channel value recorded in Column 3 by the calculated average power recorded in Column 4 and • Verifies the calculated upper and lower tilt ratio values for QPTR.
Evaluator Note:	**All lower QPTR values incorrect and 41A upper recorded incorrectly.**
Evaluator Cue:	**If examinee reports there are errors associated with the completed QPTR calculation acknowledge the report.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 6 Critical N	PPCS NTILTxU for N41A through N44A, NTILTxL for N41B through N44B.
Standard:	The Examinee may: • Leave the PPCS Column blank, or • N/A the PPCS Column and add remarks annotating that PPCS excore tilt calculations were declared inoperable.
Evaluator Note:	**PPCS Excore Tilt calculations were declared inoperable per initial conditions.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 7 Critical N	Verify the Date/Time and Performed By/IV and sign for Shift Management Review
Standard:	The Examinee signifies completion of the Quadrant Power Tilt Manual Calculation By: • Verifying the Unit designator is filled in, • Verifying the Date/Time and Performed By blocks and • Returning the completed form to the Evaluator
Evaluator Cue:	**Upon completion of PBF-2512 review the examinee may report errors associated with the calculations and not sign the PBF.** **Acknowledge the report and inform the examinee the SM directs you to continue with AOP 6H, Quadrant Power Tilt, Step 5 using the corrected calculations.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 8 Critical Y	Check Quadrant Power Tilt – Greater than 1.02
Standard:	The Examinee determines that Quadrant Power Tilt is greater than 1.02 (12%) and proceeds to Step 6 to reduce thermal power.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 9 Critical Y	Reduce Thermal Power at least 3% from Rated Thermal Power for every 1% Indicated Power Tilt.
Standard:	The Examinee determines that Reactor Thermal Power needs to be reduces 36% from RTP which means an additional 28% minimum load reduction is needed based on initial conditions.
Evaluator Cue:	**Ask examinee the minimum power reduction required.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Terminating Cues: **This completes the JPM.**

Stop Time: _____

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is operating at 92% and stable following a dropped rod.
- The PPCS Excore Tilt calculations were declared inoperable in accordance with CP 312, PPCS Operability Determination, due to PPCS being out of service.
- Annunciator POWER RANGE CHANNEL DEVIATION (1C04 1A 3-3) is LIT.
- The crew has completed the first four steps of AOP 6H, Quadrant Power Tilt.
- The Unit 2 CO and 4th RO have completed PBF-2512, Quadrant Power Tilt Manual Calculation, in accordance with AOP-6H, Quadrant Power Tilt, Step 5.

INITIATING CUES:

- The Shift Manager directs you, OS2, to perform the Shift Management review of the completed PBF-2512, Quadrant Power Tilt Manual Calculation.

ANSWER KEY DO NOT HAND OUT

Detector Channel		1	2	3	4	QPTR	PPCS
Upper	41A	237	226	1.049	0.943	1.112± .001	
	42A	226	282	0.801		0.849± .001	
	43A	270	281	0.961		1.018± .001	
	44A	285	296	0.963		1.021± .001	
Lower	41B	242	250	0.968	0.905	1.069± .001	
	42B	230	279	0.824		0.911± .001	
	43B	264	289	0.913		1.009± .001	
	44B	271	296	0.916		1.011± .001	

/
Date / Time

Performed By

IV

HIGHLITED ARAS ARE WHERE ERRORS WERE INSERTED

Detector Channel		1	2	3	4	QPTR	PPCS
Upper	41A	237	226	1.049	0.943	1.049	
	42A	226	282	0.801		0.849	
	43A	270	281	0.961		1.018	
	44A	285	296	0.963		1.021	
Lower	41B	242	250	0.968	0.918	1.054	
	42B	230	279	0.824		0.898	
	43B	264	289	0.913		0.995	
	44B	271	280	0.968		1.054	

Today/20 min ago

Date / Time

Performed By

IV

QUADRANT POWER TILT MANUAL CALCULATION

Unit 1 Shift Management Review _____

NOTE: If available, then PPCS data should be recorded.
The calculation should be independently checked.
Care should be used to accurately transfer meter readings and data from ROD 14.

Detector Channel		1	2	3	4	QPTR	PPCS
Upper	41A	237	226	1.049	0.943	1.049	OOS
	42A	226	282	0.801		0.849	OOS
	43A	270	281	0.961		1.018	OOS
	44A	285	296	0.963		1.021	OOS
Lower	41B	242	250	0.968	0.918	1.054	OOS
	42B	230	279	0.824		0.898	OOS
	43B	264	289	0.913		0.995	OOS
	44B	271	280	0.968		1.054	OOS

Today/20 min ago

Date / Time

AKZ

Performed By

DDD

IV

Detector Channel		1	2	3	4	QPTR	PPCS
Upper	41A						
	42A						
	43A						
	44A						
Lower	41B						
	42B						
	43B						
	44B						

/

Date / Time

Performed By

IV

Detector Channel		1	2	3	4	QPTR	PPCS
Upper	41A						
	42A						
	43A						
	44A						
Lower	41B						
	42B						
	43B						
	44B						

/

Date / Time

Performed By

IV

Note: This is a SOMS form and SOMS must also be revised when this form is revised.

Column	Instruction/Source
1.	Record Power Range meter readings from the 0-500 microamp scale. (check range set at 0.5 milliamps)
2.	Transfer channel calibration current from ROD 14.
3.	Calculate power for each channel (column 1 ÷ column 2)

Note: With input from one Power Range channel inoperable <u>AND</u> Thermal Power ≤75% RTP, the remaining three channels can be used for calculating QPTR in column 4 as [(sum of column 3) ÷ 3]

4. Calculate average power [(sum of column 3) ÷ 4]

QPTR Calculate upper and lower tilt ratio (column 3 ÷ column 4)

PPCS NTILTxU for N41A through N44A, NTILTxL for N41B through N44B

POINT BEACH NUCLEAR PLANT

POWER RANGE DETECTOR CALIBRATION CURRENTS
AT 100% POWER

UNIT 1

100% CALIBRATION CURRENTS (μA)								DATE	INITIALS
NE-41		NE-42		NE-43		NE-44			
A	B	A	B	A	B	A	B		
223	245	281	277	280	288	290	283	2 weeks ago	DDD
222	242	282	278	281	290	295	280	1 week ago	AKZ
226	250	282	279	281	289	296	296	y-day	RCB

Job Performance Measure (JPM)

SITE:	Point Beach
JPM TITLE:	Review a Clearance Order for Accuracy
JPM NUMBER:	Admin JPM c. (RO) REV. 0
RELATED PRA INFORMATION:	None
TASK NUMBERS / TASK TITLE(S):	NUC TAG 103 Clearance Hanger
K/A NUMBERS:	2.2.13 (4.1/4.3)

APPLICABLE METHOD OF TESTING:

Discussion:		Simulate/walkthrough:		Perform:	X

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

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path: YES

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 an RO assigned to the Work Control Center. 1P-2C Charging Pump needs to be isolated due to excessive seal leakage per OI-50, Charging Pump Isolation, and then danger tagged.
- A Clearance Order has been pulled from the Master database to use as a guide in preparing the Clearance Order.

INITIATING CUES:

- You are to review the Master Clearance provided for adequacy.
- If the Clearance is adequate, then inform the WCC Supervisor.
- If the Tag Series is **NOT** adequate, then you are to inform the WCC Supervisor of the changes needed to correct **ALL** deficiencies.

Job Performance Measure (JPM)

JPM PERFORMANCE INFORMATION

Required Materials:	1P-2C Charging Pump Clearance as provided from eSOMS OP-AA-101 Clearance and Tagging OI-50, Charging Pump Isolation P & ID 684J174 Sh. 2 Unit 1 CVCS Master Data Books WEST 499B466 Sh. 316A 1P-2C Charging Pump
General References:	OP-AA-101 Clearance and Tagging OI-50, Charging Pump Isolation P & ID 684J174 Sh. 2 Unit 1 CVCS Master Data Books WEST 499B466 Sh. 316A 1P-2C Charging Pump
Task Standards:	Clearance is reviewed and the three errors noted in this JPM are identified.

Start Time: _____

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

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: 1 Critical N	Obtain and review references as needed to determine tag series adequacy.
Standard:	References (as indicated on tag series tag list) are obtained and reviewed as needed.
Evaluator Note:	**The examiner should keep the examinee focused on the tag series review using references in the simulator (i.e. plant walk-down, review of specific tags, etc. is not necessary).**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Job Performance Measure (JPM)

Performance Step: 2 Critical Y	Determine if specified tag series boundaries are adequate for worker safety and scope of work.
Standard:	Disconnect for 1P-2C determined to be incorrect, disconnect should be 1B29-P-2C.
Evaluator Note:	**Disconnect listed on tag series, (1B29-P-2A) is for charging pump 1P-2A.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 3 Critical Y	Determine if specified clearance order boundaries are adequate for worker safety and scope of work.
Standard:	CV-399, P-2C Charging Pump Suction has the wrong unit designator. 2CV-399 is selected vice 1CV-399.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 4 Critical Y	Determine if specified tag series boundaries are adequate for worker safety and scope of work.
Standard:	Drain valve 1CV-262C, 1P-2C Charging Pump discharge header drain first off isolation, is identified as being SHUT on the tag series. 1CV-262C should be listed as open.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Terminating Cues: **When examinee indicates that all deficiencies have been identified OR indicates the Tag Series is adequate, the JPM may be terminated.**

Stop Time: _____

Job Performance Measure (JPM)

TURNOVER SHEET

INITIAL CONDITIONS:

- You are an RO assigned to the Work Control Center. 1P-2C Charging Pump needs to be isolated due to excessive seal leakage per OI-50, Charging Pump Isolation, and then danger tagged.
- A Clearance Order has been pulled from the Master database to use as a guide in preparing the Clearance Order.

INITIATING CUES:

- You are to review the Master Clearance provided for adequacy.
- If the Clearance is adequate, then inform the WCC Supervisor.
- If the Tag Series is **NOT** adequate, then you are to inform the WCC Supervisor of the changes needed to correct **ALL** deficiencies.

Job Performance Measure (JPM)

Clearance Coversheet ***Point Beach Nuclear Plant***
Clearance Folder: ONLINE
Clearance: 1 CV P-2C MM ***01*** ***02/04/2011 11:2***

Component to be Worked:

1P-2C

CHARGING PUMP

8/PAB/U1 CHG PUMP RM

WORK SCOPE

Isolate 1P-2C per OI 50 to perform the following:
1) Obtain oil sample from pump and change gear case oil (MM 6 month callup).
2) Repair oil leak on pump fitting.
3) Replace seals per RMP 9003-2.

ISOLATION NOTES

Tagging brief required using PBF-2527, Tagging Pre-Job Discussion Sheet. Observe precautions for opening the suction and discharge drains slowly. 1P-2C will be OOS, verify 1P-2A and 1P-2B are OPERABLE.

TRM 3.5.1.B and OM 3.27 apply.

NOTIFY CONTROL ROOM THAT A SMALL VCT LEVEL DECREASE IS EXPECTED WHEN THE CHARGING PUMP IS BEING VALVED IN (TAGS BEING REMOVED).

Perform OI 50, section 5.1, prior to hanging this tag series.

REF: 684J741, Sh. 2, (#20); 499B466, Sh. 316A;
OI-50,

HAZARDS:

Isolated portion of CVCS System contains high pressure fluid. Review precautions and limitations of OI-50.

Craft responsible for verifying energy released prior to starting work. Craft to verify 1P-2C is electrically isolated. Craft is to verify 1P-2C hydraulically isolated per OI-50. Craft to verify 1P-2C is drained/depressurized. Reference OP-AA-101 Attachment 4 for methods of energy release.
Monitor the P-Tubing off the 1P-2C drain lines. If excessive flow is observed, notify the WCC.

Tagging/Maintenance is to be performed in a radiologically controlled area. Ensure RP is informed prior to commencing work to ensure personnel are briefed on the applicable radiological safety precautions/practices to be observed while in the vicinity of 1P-2C.

System contains Boric Acid. Ensure personnel review or are briefed on safety precautions contained in MSDS documents prior to commencing work.

RESTORATION

When removing tags, valve "Restoration Configurations" are the same as the "Placement Configurations". Restoration shall be per OI 50.

When restoring 1P-2C to service, ensure pump is valved in slowly to avoid excessive RCP labyrinth seal differential pressure fluctuations.

Clearance Attributes:

Attribute Description	Attribute Value
Tech Specs	NONE
TRM	YES - see Isolation Notes
ODAM/ODCM/RECM	N

Page 1 of 2

Job Performance Measure (JPM)

Clearance Coversheet ***Point Beach Nuclear Plant***
Clearance Folder: ONLINE
Clearance: 1 CV P-2C MM ***01*** ***02/04/2011 11:20***

Attribute Description	Attribute Value
FP Impairment/App R	Y
Single Valve Isolation	YES
WM-AA-1000 Risk Assessment	LOW
PRA Equipment Affected	Y
Stored Energy Release Test (Mech)	YES - see Isolation Notes
Stored Energy Release Test (Elec)	YES - see Isolation Notes
Drained Instrument	N
Shiftly Holder Signoff Required	YES
Temp Mod	N
Affected Train	B
Affected Annunciators	N
Exception Clearance	NO
Containment Integrity Affected	NO
Switchyard Tagging Involved	NO
Operating Permit Used	NO
Attachment 12 Holder Tracking	NO
Work Week	1121

Work Order Task List:

Clearance Verification:

Status	Description	Name	Verification Date
Prepared	Prepared	Balma, John	02/04/2011 11:00
Reviewed	Reviewed		
Authorized	Authorized		
Hung	Hung		
Removal Prepared	Removal Prepared		
Removal Reviewed	Removal Reviewed		
Removal Authorized	Removal Authorized		
Removed	Removed		

Clearance Tag List *-- FOR REFERENCE / WALKDOWN ONLY --* *-- FOR REFERENCE / WALKDOWN ONLY --*

Clearance Folder: ONLINE *BOUNDARY SHEET -*

Clearance: 1 CV P-2C MM *01* *02/12/2011 12:19*

Tag Type / Serial No.	Equipment * Equipment Description / * Equipment Location	Pla Seq	Placement Configuration / * Notes	Place. 1st Verif Date/Time	Place. 2nd Verif Date/Time	Rest Seq	Rest. Config. *As Left (If Diff.) / * Notes	Rest. 1st Verif Date/Time	Rest. 2nd Verif Date/Time
Non-Tag	1P-2C-CS * 1P-2C CHARGING PUMP CONTROL SWITCH * 44/CB/CR 1C-04	1	PULLOUT						
Danger	1B29-P-2A * 1P-2A Charging Pump Disconnect * 8/PAB/U1 CHG PUMP AREA	2	OPEN						
Danger	1CV-279C * 1P-2C CHARGING PUMP SUCTION 1T-4 VCT RETURN * 8/PAB/U1 CHG PUMP RM	3	SHUT						
Danger	2CV-399 * 2P-2C CHARGING PUMP SUCTION * 8/PAB/U2 CHG PUMP RM	3	SHUT						
Danger	1CV-290 * 1P-2C CHARGING PUMP DISCHARGE * 8/PAB/U1 CHG PUMP RM	3	SHUT						
Danger	1CV-291 * 1P-2C CHG PUMP DISCH 1F-39A/B SEAL INJ FLTR INLET * 8/PAB/U1 CHG PUMP RM	3	SHUT						
Danger	1CV-262F * 1P-2C CHG PUMP DISCHARGE HEADER DRAIN SECOND OFF ISOL * 8/PAB/U1 CHG PUMP RM	4	OPEN						
Danger	1CV-262C * 1P-2C CHG PUMP DISCHARGE HEADER DRAIN FIRST OFF ISOL * 8/PAB/U1 CHG PUMP RM	4	SHUT						

-- FOR REFERENCE / WALKDOWN ONLY --

Job Performance Measure (JPM)

Clearance Tag List *-- FOR REFERENCE / WALKDOWN ONLY --* *-- FOR REFERENCE / WALKDOWN ONLY --*

Clearance Folder: ONLINE *BOUNDARY SHEET -*

Clearance: 1 CV P-2C MM *01* *02/04/2011 11:20*

Tag Type / Serial No.	Equipment * Equipment Description * Equipment Location	Pla Seq	Placement Configuration * Notes	Place. 1st Verif Date/Time	Place. 2nd Verif Date/Time	Rest Seq	Rest. Config. *As Left (If Diff.) * Notes	Rest. 1st Verif Date/Time	Rest. 2nd Verif Date/Time
Danger	1CV-274C * 1P-2C CHARGING PUMP CASING VENT * 8/PAB/U1 CHG PUMP RM	4	OPEN						
Danger	1CV-231C * 1P-2C CHARGING PUMP SUCTION DRAIN * 8/PAB/U1 CHG PUMP RM	4	OPEN						

Component	Note No.	Note Text
1CV-231C	123	IF SUCTION MANIFOLD MAINTENANCE IS BEING PERFORMED, THEN NON-TAG THIS VALVE.

Component	Print Number
1CV-231C	WEST 6841741
1CV-262C	WEST 6841741 SH 2
1CV-262F	WEST 6841741 SH 2
1CV-274C	WEST 6841741
1CV-279C	WEST 6841741
1CV-290	WEST 6841741
1CV-291	WEST 6841741
1P-2C-CS	WEST 499B466 SH.316A
2CV-399	WEST 6853175 SH.2(20) B-4

Component	Annotations
1CV-290	*PACKING SIZE: 7/8" ID X 1-3/8" OD X 1/4 SQUARE
1CV-291	*PACKING SIZE: 7/8" ID X 1-3/8" OD X 1/4 SQUARE
1P-2C-CS	CR NUMBER N064GREEN, WHITE AND RED INDICATTING LIGHTS.

Job Performance Measure (JPM)

SITE:	Point Beach
JPM TITLE:	Approve a Clearance Order
JPM NUMBER:	Admin JPM c. SRO REV. 0
RELATED PRA INFORMATION:	None
TASK NUMBERS / TASK TITLE(S):	NUC TAG 104 Clearance Authorizer
K/A NUMBERS:	2.2.13 (4.1/4.3)

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [X] Other: [X]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path: YES

Job Performance Measure (JPM)

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 relief crew SRO assigned to the Work Control Center. 1P-2C, Unit 2 Charging Pump, needs to be isolated per OI-50, Charging Pump Isolation and danger tagged for maintenance activities.

INITIATING CUES:

- You are to review the Clearance Order provided for adequacy.
- If the Clearance Order is adequate, then approve the Clearance Order.
- If the Clearance Order in **NOT** adequate, then identify changes that need to be made prior to approval.

Job Performance Measure (JPM)

JPM PERFORMANCE INFORMATION

Required Materials:	1P-2C Charging Pump Clearance as provided from eSOMS OP-AA-101 Clearance and Tagging OI-50, Charging Pump Isolation P & ID 684J174 Sh. 2 Unit 1 CVCS Master Data Books WEST 499B466 Sh. 316A 1P-2C Charging Pump
General References:	OP-AA-101 Clearance and Tagging OI-50, Charging Pump Isolation P & ID 684J174 Sh. 2 Unit 1 CVCS Master Data Books WEST 499B466 Sh. 316A 1P-2C Charging Pump
Task Standards:	Clearance is reviewed and the three errors noted in this JPM are identified.

Start Time: _____

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

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: 1 Critical N	Obtain and review references as needed to determine tag series adequacy.
Standard:	References (as indicated on clearance order coversheet) are obtained and reviewed as needed.
Evaluator Note:	**The examiner should keep the examinee focused on the tag series review using available references (i.e. plant walk-down, review of requesting individual documentation and review of specific tags is not necessary, etc.)**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 2 Critical Y	Determine if specified tag series boundaries are adequate for worker safety and scope of work.
Standard:	Disconnect for 1P-2C determined to be incorrect, disconnect should be 1B29-P-2C.
Evaluator Note:	**Disconnect listed on tag series, (1B29-P-2A) is for charging pump 1P-2A.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 3 Critical Y	Determine if specified clearance order boundaries are adequate for worker safety and scope of work.
Standard:	CV-399, P-2C Charging Pump Suction has the wrong unit designator. 2CV-399 is selected vice 1CV-399.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 4 Critical Y	Determine if clearance order boundaries are adequate for worker safety and scope of work.
Standard:	Drain valve 1CV-262C, 2P-2C Chg Pump Discharge Header Drain First Off Isol, is identified as being SHUT on the clearance order checklist. 1CV-262C should be listed as OPEN.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Terminating Cues: **When examinee indicates that all deficiencies have been identified OR indicates the Clearance Order is adequate, the JPM may be terminated.**

Stop Time: _____

Job Performance Measure (JPM)

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the relief crew SRO assigned to the Work Control Center. 1P-2C, Unit 2 Charging Pump, needs to be isolated per OI-50, Charging Pump Isolation and danger tagged for maintenance activities.

INITIATING CUES:

- You are to review the Clearance Order provided for adequacy.
- If the Clearance Order is adequate, then approve the Clearance Order.
- If the Clearance Order in **NOT** adequate, then identify changes that need to be made prior to approval.

Job Performance Measure (JPM)

Clearance Coversheet ***Point Beach Nuclear Plant***
Clearance Folder: ONLINE
Clearance: 1 CV P-2C MM ***01*** ***02/04/2011 11:2***

Component to be Worked:

1P-2C

CHARGING PUMP

8/PAB/U1 CHG PUMP RM

WORK SCOPE

Isolate 1P-2C per OI 50 to perform the following:
1) Obtain oil sample from pump and change gear case oil (MM 6 month callup).
2) Repair oil leak on pump fitting.
3) Replace seals per RMP 9003-2.

ISOLATION NOTES

Tagging brief required using PBF-2527, Tagging Pre-Job Discussion Sheet. Observe precautions for opening the suction and discharge drains slowly. 1P-2C will be OOS, verify 1P-2A and 1P-2B are OPERABLE.

TRM 3.5.1.B and OM 3.27 apply.

NOTIFY CONTROL ROOM THAT A SMALL VCT LEVEL DECREASE IS EXPECTED WHEN THE CHARGING PUMP IS BEING VALVED IN (TAGS BEING REMOVED).

Perform OI 50, section 5.1, prior to hanging this tag series.

REF: 684J741, Sh. 2, (#20); 499B466, Sh. 316A;
OI-50,

HAZARDS:

Isolated portion of CVCS System contains high pressure fluid. Review precautions and limitations of OI-50.

Craft responsible for verifying energy released prior to starting work. Craft to verify 1P-2C is electrically isolated. Craft is to verify 1P-2C hydraulically isolated per OI-50. Craft to verify 1P-2C is drained/depressurized. Reference OP-AA-101 Attachment 4 for methods of energy release.
Monitor the P-Tubing off the 1P-2C drain lines. If excessive flow is observed, notify the WCC.

Tagging/Maintenance is to be performed in a radiologically controlled area. Ensure RP is informed prior to commencing work to ensure personnel are briefed on the applicable radiological safety precautions/practices to be observed while in the vicinity of 1P-2C.

System contains Boric Acid. Ensure personnel review or are briefed on safety precautions contained in MSDS documents prior to commencing work.

RESTORATION

When removing tags, valve "Restoration Configurations" are the same as the "Placement Configurations". Restoration shall be per OI 50.

When restoring 1P-2C to service, ensure pump is valved in slowly to avoid excessive RCP labyrinth seal differential pressure fluctuations.

Clearance Attributes:

Attribute Description	Attribute Value
Tech Specs	NONE
TRM	YES - see Isolation Notes
ODAM/ODCM/RECM	N

Page 1 of 2

Job Performance Measure (JPM)

Clearance Coversheet ***Point Beach Nuclear Plant***
Clearance Folder: ONLINE
Clearance: 1 CV P-2C MM ***01*** ***02/04/2011 11:20***

Attribute Description	Attribute Value
FP Impairment/App R	Y
Single Valve Isolation	YES
WM-AA-1000 Risk Assessment	LOW
PRA Equipment Affected	Y
Stored Energy Release Test (Mech)	YES - see Isolation Notes
Stored Energy Release Test (Elec)	YES - see Isolation Notes
Drained Instrument	N
Shiftly Holder Signoff Required	YES
Temp Mod	N
Affected Train	B
Affected Annunciators	N
Exception Clearance	NO
Containment Integrity Affected	NO
Switchyard Tagging Involved	NO
Operating Permit Used	NO
Attachment 12 Holder Tracking	NO
Work Week	1121

Work Order Task List:

Clearance Verification:

Status	Description	Name	Verification Date
Prepared	Prepared	Balma, John	02/04/2011 11:00
Reviewed	Reviewed		
Authorized	Authorized		
Hung	Hung		
Removal Prepared	Removal Prepared		
Removal Reviewed	Removal Reviewed		
Removal Authorized	Removal Authorized		
Removed	Removed		

Clearance Tag List *-- FOR REFERENCE / WALKDOWN ONLY --* *-- FOR REFERENCE / WALKDOWN ONLY --*

Clearance Folder: ONLINE *BOUNDARY SHEET -*

Clearance: 1 CV P-2C MM *01* *02/12/2011 12:19*

Tag Type / Serial No.	Equipment * Equipment Description / * Equipment Location	Pla Seq	Placement Configuration / * Notes	Place. 1st Verif Date/Time	Place. 2nd Verif Date/Time	Rest Seq	Rest. Config. *As Left (If Diff.) / * Notes	Rest. 1st Verif Date/Time	Rest. 2nd Verif Date/Time
Non-Tag	1P-2C-CS * 1P-2C CHARGING PUMP CONTROL SWITCH * 44/CB/CR 1C-04	1	PULLOUT						
Danger	1B29-P-2A * 1P-2A Charging Pump Disconnect * 8/PAB/U1 CHG PUMP AREA	2	OPEN						
Danger	1CV-279C * 1P-2C CHARGING PUMP SUCTION 1T-4 VCT RETURN * 8/PAB/U1 CHG PUMP RM	3	SHUT						
Danger	2CV-399 * 2P-2C CHARGING PUMP SUCTION * 8/PAB/U2 CHG PUMP RM	3	SHUT						
Danger	1CV-290 * 1P-2C CHARGING PUMP DISCHARGE * 8/PAB/U1 CHG PUMP RM	3	SHUT						
Danger	1CV-291 * 1P-2C CHG PUMP DISCH 1F-39A/B SEAL INJ FLTR INLET * 8/PAB/U1 CHG PUMP RM	3	SHUT						
Danger	1CV-262F * 1P-2C CHG PUMP DISCHARGE HEADER DRAIN SECOND OFF ISOL * 8/PAB/U1 CHG PUMP RM	4	OPEN						
Danger	1CV-262C * 1P-2C CHG PUMP DISCHARGE HEADER DRAIN FIRST OFF ISOL * 8/PAB/U1 CHG PUMP RM	4	SHUT						

-- FOR REFERENCE / WALKDOWN ONLY --

Job Performance Measure (JPM)

-- FOR REFERENCE / WALKDOWN ONLY -- *-- FOR REFERENCE / WALKDOWN ONLY --*

Clearance Tag List

Clearance Folder: ONLINE *BOUNDARY SHEET -*

Clearance: 1 CV P-2C MM *01* *02/04/2011 11:20*

Tag Type / Serial No.	Equipment * Equipment Description * Equipment Location	Pla Seq	Placement Configuration * Notes	Place. 1st Verif Date/Time	Place. 2nd Verif Date/Time	Rest Seq	Rest. Config. *As Left (If Diff.) * Notes	Rest. 1st Verif Date/Time	Rest. 2nd Verif Date/Time
Danger	1CV-274C * 1P-2C CHARGING PUMP CASING VENT * 8/PAB/U1 CHG PUMP RM	4	OPEN						
Danger	1CV-231C * 1P-2C CHARGING PUMP SUCTION DRAIN * 8/PAB/U1 CHG PUMP RM	4	OPEN						

Component	Note No.	Note Text
1CV-231C	123	IF SUCTION MANIFOLD MAINTENANCE IS BEING PERFORMED, THEN NON-TAG THIS VALVE.

Component	Print Number
1CV-231C	WEST 6841741
1CV-262C	WEST 6841741 SH 2
1CV-262F	WEST 6841741 SH 2
1CV-274C	WEST 6841741
1CV-279C	WEST 6841741
1CV-290	WEST 6841741
1CV-291	WEST 6841741
1P-2C-CS	WEST 499B466 SH.316A
2CV-399	WEST 6853175 SH.2(20) B-4

Component	Annotations
1CV-290	*PACKING SIZE: 7/8" ID X 1-3/8" OD X 1/4 SQUARE
1CV-291	*PACKING SIZE: 7/8" ID X 1-3/8" OD X 1/4 SQUARE
1P-2C-CS	CR NUMBER N064GREEN, WHITE AND RED INDICATTING LIGHTS.

Job Performance Measure (JPM)

SITE: Point Beach

JPM TITLE: Prepare for Entry into Locked High Radiation Area

JPM NUMBER: Admin JPM d. REV. 0

RELATED PRA INFORMATION: None

TASK NUMBERS / TASK TITLE(S): P162.008.AOT Enter/exit various radiologically controlled areas

K/A NUMBERS: GEN 2.3.13 (3.4/3.8)

APPLICABLE METHOD OF TESTING:

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

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

Simulator: [ ] Other: [ ]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path: NO

Job Performance Measure (JPM)

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

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

INITIAL CONDITIONS:

- Both units are at full power.
- A contractor told an RP Technician he saw water leaking from a valve and he believed it to be a packing leak.
- The contractor was able to identify the valve number only as 2CV-303A and gave no additional clarifying information.

INITIATING CUES:

- The Relief Crew Supervisor has directed you to locate valve 2CV-303A, 2F-39B RCP Seal Injection Filter Outlet Valve, and quantify the leakage so that recommendations can be made concerning repairs.
- You are to prepare a Jump Ticket (PBF-4245) in preparation to determine entry requirements into Unit 2 Seal Water Injection Filter Cubicle.
- The leak quantification is expected to take approximately 3 minutes.

Job Performance Measure (JPM)

JPM PERFORMANCE INFORMATION

Required Materials:	PBF-4021 Area 6-3 Radiological survey map of U2 Seal Filter Cubical Operations Routine RWP PBF-4245 Jump Ticket
General References:	PBF-4021 Area 6-3 Radiological survey map of U2 Seal Filter Cubical Operations Routine RWP PBF-4245 Jump Ticket HP 2.6 Locked and Very High Radiation Area Key Control
Task Standards:	Prepare a Jump Ticket (PBF-4245) to determine entry requirements into Unit 2 RCP Seal Water Injection Filter Cubical.

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: 1 Critical N	Examinee reviews given survey map and OPS RWP to determine information needed for Jump Ticket.
Standard:	Reviews survey map to determine the seal filter cubicle is a LHRA and requires the use of Task #3 on the OPS Routine RWP.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 2 Critical N	Examinee fills out Jump Ticket for the following: (1) Name: _____
Standard:	Examinee fills in their name.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 3 Critical N	Examinee fills out Jump Ticket for the following: (2) WO#: _____.
Standard:	Examinee fills in given WO number.
Evaluator Cue:	**WO 34567 was generated for this task.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 4 Critical N	Examinee fills out Jump Ticket for the following: (3) RWP#: _____.
Standard:	Examinee fills out 11-003.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 5 Critical N	Examinee fills out Jump Ticket for the following: (4) PB0 PB1 PB2 (circle one)
Standard:	Examinee circles PB2.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 6 Critical Y	Examinee fills out Jump Ticket for the following: (5) Specific component location or area: _____.
Standard:	Examinee fills out Unit 2 Seal Injection Filter Cubicle or similar wording.
Evaluator Cue:	**Have examinee locate 2CV-303D on the survey map.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 7 Critical N	Examinee fills out Jump Ticket for the following: (6) Work to be performed: _____.
Standard:	Examinee fills out quantifying packing leakage on 2CV-303D or similar wording.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 8 Critical N	Examinee fills out Jump Ticket for the following: (7) Dose goal: _____.
Standard:	Examinee calculates potential dose for the job.
Evaluator Note:	**3 minutes times 600 mRem/hr = about 30 mr dose.** **600 mRem comes from the survey map near the leaky valve. A higher dose rate may be used depending on where the examinee thinks they will have to work.**
Evaluator Cue:	**The time to quantify the leak is expected to take 3 minutes (given).**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 9 Critical Y	Examinee fills out Jump Ticket for the following: (8) Dose Alarm: _____. (9) Dose Rate Alarm: _____.
Standard:	Examinee determines Alarm and Rate Alarm to be 152 mRem and 1,000 mRem/hr from Task #3 within the OPS RWP for LHRA.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 10 Critical N	Examinee fills out Jump Ticket for the following: (10) Expected Dose Rate Range: _____ mRem/hr
Standard:	Examinee determines range to be from background to an area they think they will enter.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 11 Critical Y	Examinee fills out Jump Ticket for the following: (11) Expected Contamination Levels: **Clean CA HCA** (Circle Choice)
Standard:	Examinee circles **HCA** based on survey map.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 12 Critical Y	Examinee fills out Jump Ticket for the following: (12) Protective Clothing Req. Class: **None 1 2 3**
Standard:	Examinee circles 2 based on task #3 OPS RWP.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 13 Critical Y	Examinee fills out Jump Ticket for the following: (13) **Entering a HRA or LHRA? YES NO** (Circle Choice) **A High Radiation Area Briefing by Radiation Protection is Required prior to entering the area.**
Standard:	Examinee circles YES based on survey map.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Performance Step: 14 Critical N	Examinee fills out Jump Ticket for the following: (14) Is RP Coverage Required? **YES NO** (Circle Choice)
Standard:	Examinee circles YES based on task#3 in the OPS RWP.
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Job Performance Measure (JPM)

Performance Step: 15 Critical N	What actions are required to exit the Locked High Rad area?
Standard:	Examinee determines the following actions are required: • Remove protective clothing • Ensure gate is locked • Whole body frisk at nearest station
Evaluator Cue:	**Ask examinee what actions are required to exit the Locked High Radiation Area.**
Performance:	SATISFACTORY ☐ UNSATISFACTORY ☐
Comments:	_____

Terminating Cues: This completes the JPM

Stop Time: _____

FOR INFORMATION ONLY

Point Beach Nuclear Plant
Radiological Surveys
Location: U-2 Seal Water Injection Cubicle El. 8' PAB North

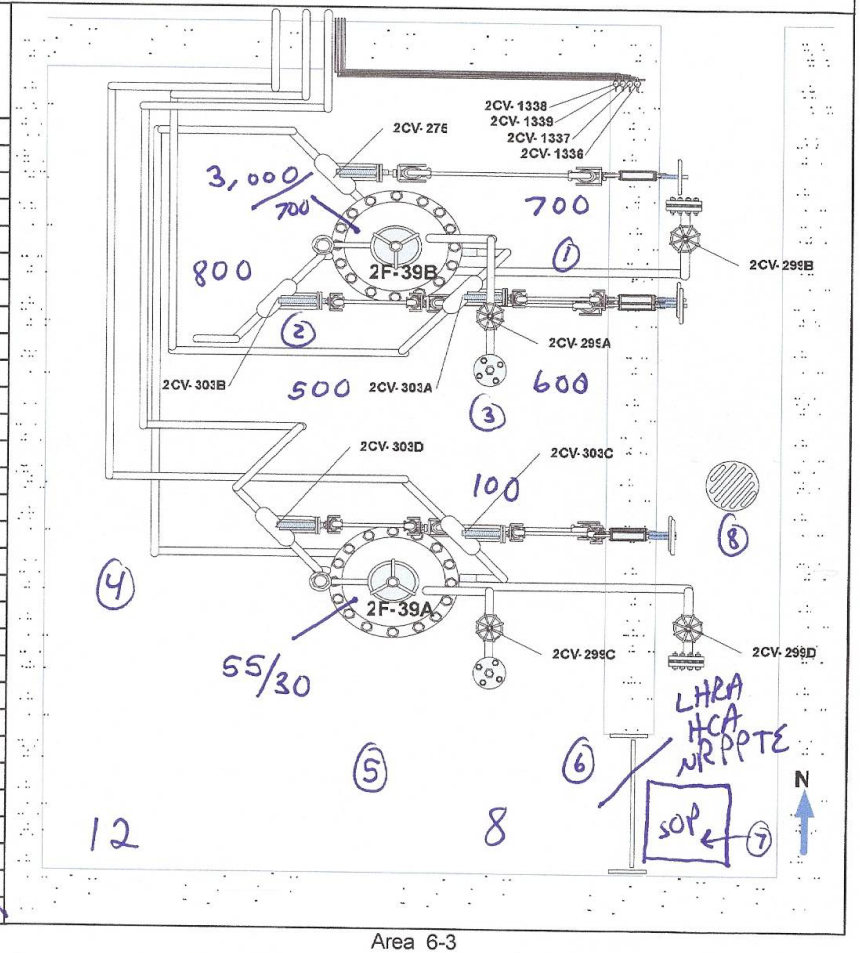
FOR INFORMATION ONLY

Date: 1 week AGO
Time: 0900
Monitor: A. Reiff ALReiff

Instrument Type: Telepde / RM-14 / SAC 4
Serial No. : 7492 / 6836 / 7271
Counted By: A. Reiff ALReiff

Purpose: ☐ Daily Survey ☐ Pre-RWP ☐ RWP # ☒ Other INSPECTION
Reviewed By:

NO.	mRem/hr	βγ dpm/100 cm²	α dpm/100 cm²	REMARKS
1	See MAP	47,000	≤18	Floor
2		5500	≤18	
3		8000	N/A	
4		3000		
5		2000		
6		1000		
7		≤BKGD		Step-off- PAD Floor
8		≤BKGD		



Area 6-3

PBF-4021
Revision 0 06/08/10
HP 1.9

RM-14
11.5%
80 cpm BKgd

Notes:1) All readings in mRem/hr
2) * Designates hot spots
3) "Potential Hazards" identified are indicated on map
4) Dose rate format is: Contact/ 30 cm

FOR INFORMATION ONLY

Job Performance Measure (JPM)

TURNOVER SHEET

INITIAL CONDITIONS:

- Both units are at full power.
- A contractor told an RP Technician he saw water leaking from a valve and he believed it to be a packing leak.
- The contractor was able to identify the valve number only as 2CV-303A and gave no additional clarifying information.

INITIATING CUES:

- The Relief Crew Supervisor has directed you to locate valve 2CV-303A, 2F-39B RCP Seal Injection Filter Outlet Valve, and quantify the leakage so that recommendations can be made concerning repairs.
- You are to prepare a Jump Ticket (PBF-4245) in preparation to determine entry requirements into Unit 2 Seal Water Injection Filter Cubicle.
- The leak quantification is expected to take approximately 3 minutes.

Point Beach Nuclear Plant

Job Performance Measure (JPM)

JPM TITLE:	CLASSIFY AN EMERGENCY EVENT IN ACCORDANCE WITH EPIP 1.2
JPM NUMBER:	Admin JPM e. SRO REV. 0
RELATED PRA INFORMATION:	None
TASK NUMBERS / TASK TITLE(S):	P028.001.EMR / Re-classify an emergency event in accordance with EPIP 1.2.
K/A NUMBERS:	2.4.40 (2.7/4.5) 2.4.41 (2.9/4.7)

APPLICABLE METHOD OF TESTING:

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

EVALUATION LOCATION:

In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [X]

Lab: [ ]

Time for Completion: 15 Minutes Time Critical: YES*

* Step 2 is time critical.

Alternate Path: NO

Job Performance Measure (JPM)

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

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

INITIAL CONDITIONS:

- You are the Unit 1 SRO
- Both Units were operating at 100% power with a severe thunderstorm warning in effect. Unit 2 had indications of a small Steam Generator Tube Leak ('A' SG) with leakage estimated at 50 gallons per day.
- Electrical perturbations from multiple lightning strikes caused a total loss of off-site power to Unit 2 and Unit 2 reactor tripped due to a unit lockout.
- All plant systems responded and are functioning per design.
- The loss of off-site power occurred 25 minutes ago and has not been restored.
- In response to the above events, the Shift Manager has declared an UNUSUAL EVENT.
- Initial notifications to State and County have been made.

INITIATING CUES (IF APPLICABLE):

- Based solely on the initial conditions given above and using the guidance of EPIP 1.2, you are to complete the following action:

    1. Verify the initial classification made by the Shift Manager and, if necessary, re-classify the event.

Job Performance Measure (JPM)

JPM PERFORMANCE INFORMATION

Required Materials:	EPIP 1.2, Emergency Classification EPIP 1.2.1, Emergency Action Level Technical Basis
General References:	EPIP 1.2, Emergency Classification EPIP 1.2.1, Emergency Action Level Technical Basis
Task Standards:	Complete emergency plan classification of event in progress

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.

Job Performance Measure (JPM)

Performance Step: 1 Critical Y	Verify/Re-classify the event using EPIP 1.2 based only on the initial conditions given.
Standard:	Examinee researches initial conditions and references EPIP 1.2 and 1.2.1 and determines that the Shift Manager was correct in his assessment and initial notification. An Unusual Event exists on SU1.1, Loss of power to or from the 2X04 transformer that results in a loss of all offsite power to both 2A05 and 2A06 for greater than 15 minutes AND Both safety-related 4160 VAC buses 2A05 and 2A06 power from emergency generators.
Evaluator Note:	**RECORD START TIME OF TIME CRITICAL PORTION OF JPM:_____.**
Evaluator Cue:	**Upon completion of this step, read the following to the examinee AND provide copy of RECLASSIFICATION TURNOVER SHEET to examinee:** • **The Unit 2 CO reports to the SRO that Unit 2 Safety Injection has actuated and the 'A' Steam Generator tube leakage has increased to 450 gpm.** • **In addition, the PAB AO reports the 2MS-2010, 'A' Steam Generator Safety Valve is stuck open.** • **Off-site power has not been restored.** **Based on this additional information, re-classify the event, if necessary, in accordance with EPIP 1.2, Section 5.1.**
Performance:	SATISFACTORY _____ UNSATISFACTORY _____
Comments:	_____

Job Performance Measure (JPM)

Performance Step: 2 Critical Y	Using EPIP 1.2, and initial conditions given, reclassify the event.
Standard:	Examinee must recognize a SITE AREA EMERGENCY is now required to be declared per FS1 based on RCS Barrier Loss EAL #3 AND Containment Barrier Loss EAL #4. The classification must be completed within 15 minutes of completion of the reading of the evaluator cue in JPM step 1.
Evaluator Note:	**When examinee indicates his answer, the JPM is complete.**
Performance:	SATISFACTORY _____ UNSATISFACTORY _____
Comments:	_____

Terminating Cues: The evolution is complete.

Stop Time: _____

Job Performance Measure (JPM)

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 SRO
- Both Units were operating at 100% power with a severe thunderstorm warning in effect. Unit 2 had indications of a small Steam Generator Tube Leak ('A' SG) with leakage estimated at 50 gallons per day.
- Electrical perturbations from multiple lightning strikes caused a total loss of off-site power to Unit 2 and Unit 2 reactor tripped due to a unit lockout.
- All plant systems responded and are functioning per design.
- The loss of off-site power occurred 25 minutes ago and has not been restored.
- In response to the above events, the Shift Manager has declared an UNUSUAL EVENT.
- Initial notifications to State and County have been made.

INITIATING CUES (IF APPLICABLE):

- Based solely on the initial conditions given above and using the guidance of EPIP 1.2, you are to complete the following action:

  1. Verify the initial classification made by the Shift Manager and, if necessary, re-classify the event.

Job Performance Measure (JPM)

RECLASSIFICATION TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Unit 1 SRO
- Both Units were operating at 100% power with a severe thunderstorm warning in effect. Unit 2 had indications of a small Steam Generator Tube Leak (’A’ SG) with leakage estimated at 50 gallons per day.
- Electrical perturbations from multiple lightning strikes caused a total loss of off-site power to Unit 2 and Unit 2 reactor tripped due to a unit lockout.
- All plant systems responded and are functioning per design.
- The loss of off-site power occurred 25 minutes ago and has not been restored.
- In response to the above events, the Shift Manager has declared an UNUSUAL EVENT.

INITIATING CUES :

- Based solely on the initial conditions given above and using the guidance of EPIP 1.2, you are to complete the following action:

  Verify the initial classification made by the Shift Manager and, if necessary, re-classify the event.

RECLASSIFICATION CUES:

- The Unit 2 CO reports to the SRO that Unit 2 Safety Injection has actuated and the ’A’ Steam Generator tube leakage has increased to 450 gpm.
- In addition, the PAB AO reports the 2MS-2010, ‘A’ Steam Generator Safety Valve is stuck open.
- Off-site power has not been restored.

Based on this additional information, re-classify the event, if necessary, in accordance with EPIP 1.2, Section 5.1.