

**FINAL AS-ADMINISTERED WALKTHROUGH JPMS**

**FOR THE POINT BEACH INITIAL EXAMINATION - JAN/FEB 2002**

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P7040aCOT  
Revision 0 DRAFT  
August 27, 2001

RESPOND TO MULTIPLE STUCK RODS

B.I.a

K/A REFERENCE: APE 005.AA2.03 (3.5/4.4)  
(NUREG-1122) APE 024.AK3.01 (4.1/4.4)  
APE 024.AK3.02 (4.2/4.4)

ALTERNATE PATH JPM ☒ YES ☐ NO

PERFORMANCE CHECKLIST:

SATISFACTORY - Properly performed critical step(s) and/or in sequence (if applicable)

UNSATISFACTORY - Improperly performed critical step(s) and/or out of sequence (if applicable)

☒ Procedure adequately addresses task elements.  
Enter identifier here: EOP 0.1 Unit 1

☐ Other document adequately describes necessary task elements.  
Enter identifier here: \_\_\_\_\_

☒ Task elements described as attached.

DESIRED MODE OF EVALUATION:

APPLICABLE EVALUATION SETTING:

SIMULATE/WALKTHROUGH ☒ DISCUSSION ☐ PERFORM ☐ IN-PLANT ☐ CONTROL ROOM ☒

VALIDATED TIME FOR COMPLETION: 15 MINUTES

RESPOND TO MULTIPLE STUCK RODS

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EXAMINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

START TIME \_\_\_\_\_ FINISH TIME \_\_\_\_\_

PERFORMANCE ☐ SAT ☐ UNSAT

JOB TITLE: ☐ AOT ☐ COT ☐ SRO ☐ STA

TOOLS/EQUIPMENT/REFERENCES:

EOP 0.1 Unit 1 "Reactor Trip Response" Rev. 26

TASK STANDARDS:

Emergency boration established per EOP 0.1 due to 2 control rods not fully inserted.

SIMULATOR INFORMATION:

Initialize to JPM specific IC (Exam IC #68).

TIME	TAGNAME	VALUE	RAMP VALUE	RAMP TIME	DELAY TIME	SEVERITY VALUE	TRIGGER

**NOTE:** If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.

**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.

**RESPOND TO MULTIPLE STUCK RODS**

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**READ AND PROVIDE TO THE EXAMINEE**

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**THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMs. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.**

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For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

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

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**INITIAL CONDITIONS:**

You are the Unit 1 CO. Unit 1 has experienced a reactor/turbine trip due to a main generator lockout. The crew has transitioned from EOP-0 to EOP-0.1 "Reactor Trip Response" and EOP-0.1 actions are in progress.

**INITIATING CUES (IF APPLICABLE):**

The Shift Manager directs you to continue with EOP-0.1 actions beginning at step 9.

**RESPOND TO MULTIPLE STUCK RODS**

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**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

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START TIME	STEP/SEQUENCE/CRITICAL	SAT
	1 1 N	UNSAT

**ELEMENT:** Check VCT level > 17%.

**STANDARD:** VCT level determined to be greater than 17% from indication on 1C04.

**CUE:** VCT level is 55% (or as indicated on simulator).

**COMMENTS:**

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STEP/SEQUENCE/CRITICAL	SAT
2 2 N	UNSAT

**ELEMENT:** Ensure VCT Outlet to Charging Pump Suction MOV 1CV-112C is open.

**STANDARD:** 1CV-112C is ensured open using indication on 1C04.

**CUE:** Green light is off, red light is lit for 1CV-112C (or as indicated on simulator).

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL	SAT
3 3 N	UNSAT

**ELEMENT:** Ensure RWST to Charging Pump Suction MOV 1CV-112B is shut.

**STANDARD:** 1CV-112B is ensured shut using indication on 1C04.

**CUE:** Green light is lit, red light is off for 1CV-112B (or as indicated on simulator).

**COMMENTS:**

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RESPOND TO MULTIPLE STUCK RODS

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PERFORMANCE INFORMATION

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STEP/SEQUENCE/CRITICAL  
4 4 N

SAT  
UNSAT

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**ELEMENT:** Ensure RCS Loop A Cold Leg Normal Charging Isolation Valve 1CV-1298 is open.

**STANDARD:** 1CV-1298 checked open on 1C04.

**CUE:** Red light is lit, green light is off for 1CV-1298 (or as indicated on simulator).

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL  
5 4 N

SAT  
UNSAT

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**ELEMENT:** Check at least one charging pump running.

**STANDARD:** Two charging pumps determined to be running.

**CUE:** Red light is lit above control switch for two charging pumps (or as indicated on simulator).

**COMMENTS:**

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RESPOND TO MULTIPLE STUCK RODS

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PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

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	STEP/SEQUENCE/CRITICAL	SAT
	6 4 N	UNSAT
<b>ELEMENT:</b>	Start additional charging pumps as necessary and adjust speed to establish desired charging flow.	
<b>STANDARD:</b>	Examinee should determine that the current charging pump alignment is satisfactory. A third pump could be started at this time, but is not necessary based on current information known by the examinee.	
<b>CUE:</b>	Pressurizer level is stable (or as indicated on simulator).	
<b>NOTE:</b>	<i>Minor adjustments in pump speed may be made to balance the Auto and Manual charging pumps.</i>	
<b>COMMENTS:</b>		

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	STEP/SEQUENCE/CRITICAL	SAT
	7 4 N	UNSAT
<b>ELEMENT:</b>	Adjust charging line flow controller 1HC-142 to maintain labyrinth seal delta-P > 20 inches.	
<b>STANDARD:</b>	1HC-142 adjusted as necessary to maintain RCP labyrinth seal delta-P > 20 inches as indicated on 1C04.	
<b>CUE:</b>	Labyrinth seal delta-P is 30 inches for both RCPs (or as indicated on simulator).	
<b>NOTE:</b>	<i>Minor adjustments in charging pump speed may be made when 1HC-142 is adjusted.</i>	
<b>COMMENTS:</b>		

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RESPOND TO MULTIPLE STUCK RODS

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PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

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	STEP/SEQUENCE/CRITICAL	SAT
	8 5 Y	UNSAT
<b>ELEMENT:</b>	Check all control rods fully inserted.	
<b>STANDARD:</b>	Two control rods (E9 and G11) are determined to NOT be fully inserted, a transition to the RNO column for additional actions must be made.	
<b>CUE:</b>	Control rod E9 indicates 225 steps, control rod G11 indicates 220 steps, the rod bottom lights for E9 and G11 are not lit (or as indicated on simulator).	
<b>NOTE:</b>	<i>This begins the Alternate Path of this JPM.</i>	
<b>COMMENTS:</b>		

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	STEP/SEQUENCE/CRITICAL	SAT
	9 6 N	UNSAT
<b>ELEMENT:</b>	Level for in-service BAST recorded.	
<b>STANDARD:</b>	Level for T6A BAST read from indicator on panel C01.	
<b>CUE:</b>	T6A BAST level is 65% (or as indicated on simulator).	
<b>COMMENTS:</b>		

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	STEP/SEQUENCE/CRITICAL	SAT
	10 6 Y	UNSAT
<b>ELEMENT:</b>	Start one boric acid transfer pump.	
<b>STANDARD:</b>	Either 1P-4A or 1P-4B is manually started using its control switch on 1C04.	
<b>CUE:</b>	Red light is lit for the pump chosen to start (or as indicated on simulator).	
<b>COMMENTS:</b>		

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RESPOND TO MULTIPLE STUCK RODS

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PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

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	STEP/SEQUENCE/CRITICAL		SAT
	11	7	Y
			UNSAT
<b>ELEMENT:</b>	Fully open charging flow control valve 1HC-142.		
<b>STANDARD:</b>	1HC-142 is fully opened.		
<b>CUE:</b>	Red light is lit, green light is off, for 1HC-142 (or as indicated on simulator).		
<b>NOTE:</b>	<i>The valve hand controller has a designator of 1HC-142, the actual valve is 1CV-142.</i>		
<b>COMMENTS:</b>			

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	STEP/SEQUENCE/CRITICAL		SAT
	12	7	Y
			UNSAT
<b>ELEMENT:</b>	Start additional charging pumps.		
<b>STANDARD:</b>	All three charging pumps are running.		
<b>CUE:</b>	Red light is lit for any additional charging pump started (or as indicated on simulator).		
<b>COMMENTS:</b>			

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	STEP/SEQUENCE/CRITICAL		SAT
	13	7	Y
			UNSAT
<b>ELEMENT:</b>	Adjust charging pump speed as necessary to maintain charging pump flow <140 gpm.		
<b>STANDARD:</b>	Charging pump speed adjusted to obtain charging flow as high as possible but on-scale on flow indicator (<140 gpm). Charging pump flow must be >120 gpm but <140 gpm.		
<b>CUE:</b>	Charging pump flow is increasing as pump speed is increased (or as indicated on simulator). Charging pump flow is approximately 130 gpm (or as indicated on simulator).		
<b>COMMENTS:</b>			

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RESPOND TO MULTIPLE STUCK RODS

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PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

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	STEP/SEQUENCE/CRITICAL		SAT
	14	8	Y
			UNSAT

**ELEMENT:** Open emergency borate valve 1CV-350.

**STANDARD:** 1CV-350 is opened using its control switch on 1C04.

**CUE:** Red light is lit, green light is off above 1CV-350 (or as indicated on simulator).

**COMMENTS:**

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	STEP/SEQUENCE/CRITICAL		SAT
	15	9	N
			UNSAT

**ELEMENT:** Borate 1200 gallons for each control rod not fully inserted.

**STANDARD:** 2400 gallon boration determined to be required based on 2 control rods not fully inserted.

**CUE:** The BOP Operator (3<sup>rd</sup> license) will determine the BAST level change.

**COMMENTS:**

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**TERMINATION CUE:** THIS COMPLETES THE JPM.

**COMPLETION TIME:** \_\_\_\_\_

DRAIN THE ACCUMULATORS

K/A REFERENCE: 006.K1.15 (2.2/2.2)  
(NUREG-1122) 006.K5.02 (2.8/2.9)  
006.A1.13 (3.5/3.7)  
006.A4.01 (4.1/3.9)  
006.A4.02 (4.0/3.8)

ALTERNATE PATH JPM \_\_\_\_\_ YES X NO

PERFORMANCE CHECKLIST:

SATISFACTORY - Properly performed and/or in sequence (if applicable)

UNSATISFACTORY - Improperly performed and/or out of sequence (if applicable)

X Procedure adequately addresses task elements.  
Enter identifier here: OI-100 "Adjusting SI Accumulator Level and Pressure"

\_\_\_\_\_ Other document adequately describes necessary task elements.  
Enter identifier here: \_\_\_\_\_

X Task elements described as attached.

DESIRED MODE OF EVALUATION:

APPLICABLE EVALUATION SETTING:

SIMULATE/WALKTHROUGH X DISCUSSION \_\_\_\_\_ PERFORM X IN-PLANT \_\_\_\_\_ CONTROL ROOM X

VALIDATED TIME FOR COMPLETION: 15 MINUTES

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P006.003COT  
Revision 2 DRAFT  
August 27, 2001  
TOTAL REWRITE

**DRAIN THE ACCUMULATORS**

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EXAMINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

JOB TITLE:    ☐ AOT    ☐ COT    ☐ SRO    ☐ STA

**TOOLS/EQUIPMENT/REFERENCES:**

OI-100 "Adjusting SI Accumulator Level and Pressure" Rev 16

**TASK STANDARDS:**

Accumulator drained to desired level (30%).

**SIMULATOR INFORMATION:**

TIME	FAIL	COMPONENT	OPTION	VALUE	RAMP	DELAY	ACT	COND
Initialize to JPM specific saved IC (Exam IC #62).								

DRAIN THE ACCUMULATORS

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**INITIAL CONDITIONS:**

Unit 1 is at 100% power. 1T-34A, SI accumulator is at 35%.

**INITIATING CUES (IF APPLICABLE):**

The Shift Manager directs you to drain the accumulator to 30%, in accordance with OI-100, "Adjusting SI Accumulators Level and Pressure."

DRAIN THE ACCUMULATORS

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

START TIME	STEP/SEQUENCE/CRITICAL			SAT
	1	1	N	UNSAT

**ELEMENT:** Reviews "Caution" and "Note" prior to Section 5.3, completes Sections 1.0 and 2.0 of Attachment A.

**STANDARD:** Sections 1.0 and 2.0 completed using proper accumulator ID and parameter values. Inquiry as to reason for level rise (from CAUTION) should be made by examinee.

**CUE:** **Inform examinee that Chemistry will perform SR 3.5.1.4 to sample the accumulator if examinee inquires about level rise.**  
Pressure is 750 psi, level is 35%. (Or as shown on simulator.)

**COMMENTS:**

STEP/SEQUENCE/CRITICAL			SAT
2	1	N	UNSAT

**ELEMENT:** Pump down the RCDT for affected unit to 30%.

**STANDARD:** PAB AO contacted to check Unit 1 RCDT at 30% and pump down if necessary.

**CUE:** **The PAB AO reports the Unit 1 RCDT is at 30%.**

**COMMENTS:**

STEP/SEQUENCE/CRITICAL			SAT
3	1	N	UNSAT

**ELEMENT:** Establish communications with PAB AO to monitor the RCDT pressure and level during accumulator draining to RCDT.

**STANDARD:** PAB AO contacted and informed to monitor RCDT pressure and level, informs AO of CAUTION regarding not exceeding 8 psig in RCDT.

**CUE:** **The PAB AO acknowledges the report and is standing by at C-59.**

**COMMENTS:**

DRAIN THE ACCUMULATORS

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

	STEP/SEQUENCE/CRITICAL		SAT
	4	2	UNSAT
		N	
<b>ELEMENT:</b>	Record RCDT initial level in Attachment A, Section 4.0		
<b>STANDARD:</b>	30% recorded as initial RCDT level.		
<b>CUE:</b>			
<b>COMMENTS:</b>			

	STEP/SEQUENCE/CRITICAL		SAT
	5	3	UNSAT
		Y	
<b>ELEMENT:</b>	Open accumulator drain valve ISI-844A ("A" accumulator) to drain the accumulator to desired level.		
<b>STANDARD:</b>	ISI-844A is opened using its control switch on rear of C01.		
<b>CUE:</b>	Red light is lit, green light is off above valve ISI-844A, level is decreasing (or as shown on simulator).		
<b>COMMENTS:</b>			

	STEP/SEQUENCE/CRITICAL		SAT
	6	4	UNSAT
		Y	
<b>ELEMENT:</b>	Drain the accumulator to the desired level as indicated on LI-939 or LI-938.		
<b>STANDARD:</b>	Desired level reached (28-32%).		
<b>CUE:</b>	LI-939 or LI-938 indicates 30% (or as shown on simulator).		
<b>COMMENTS:</b>			

DRAIN THE ACCUMULATORS

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

	STEP/SEQUENCE/CRITICAL		SAT
	7	5	Y
			UNSAT
<b>ELEMENT:</b>	Shut 1SI-844A.		
<b>STANDARD:</b>	1SI-844A shut using its control switch on rear of C01.		
<b>CUE:</b>	Green light is lit, red light is off above valve 1SI-844A, level is stable (or as shown on simulator).		
<b>COMMENTS:</b>			

	STEP/SEQUENCE/CRITICAL		SAT
	8	6	N
			UNSAT
<b>ELEMENT:</b>	Complete Sections 4.0, 5.0, and 7.0 of Attachment A.		
<b>STANDARD:</b>	Sections 4.0 and 5.0 filled out correctly, log entries made per 7.0. AO contacted for final RCDT level.		
<b>CUE:</b>	<b>Inform examinee that RCDT level is now 39%.</b> Accumulator pressure is ~745 psig, accumulator level is 30% (or as shown in simulator). <b>Inform examinee that log entries will be made by shift supervision.</b>		
<b>COMMENTS:</b>			



DRAIN THE ACCUMULATORS

PERFORMANCE INFORMATION

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	STEP/SEQUENCE/CRITICAL		SAT
	9	6	UNSAT
<b>ELEMENT:</b>	Ensure Accumulator pressure between 720 to 760 psig as indicated on PI-940 or PI-941.		
<b>STANDARD:</b>	Accumulator pressure between 720 to 760 psig.		
<b>CUE:</b>	PI-940 reads 745 psig (or as shown on the simulator).		
<b>COMMENTS:</b>			

	STEP/SEQUENCE/CRITICAL		SAT
	10	6	UNSAT
<b>ELEMENT:</b>	Inform the Shift Manager on the status of the accumulator.		
<b>STANDARD:</b>	Shift Manager informed of accumulator status.		
<b>CUE:</b>	The Shift Manager acknowledges the report.		
<b>COMMENTS:</b>			

**TERMINATION CUE:** This completes the JPM.

**COMPLETION TIME:** \_\_\_\_\_

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM PXXX.XXXCOT  
Revision 0 DRAFT  
January 14, 2002

PERFORM PRESSURIZER HEATER ENERGY INPUT TEST

B.I.C

K/A REFERENCE: 010.K2.01 (3.0/3.4)  
(NUREG-1122) 010.A4.02 (3.6/3.4)

ALTERNATE PATH JPM \_\_\_\_\_ YES X NO

PERFORMANCE CHECKLIST:

SATISFACTORY - Properly performed critical step(s) and/or in sequence (if applicable)

UNSATISFACTORY - Improperly performed critical step(s) and/or out of sequence (if applicable)

X Procedure adequately addresses task elements.  
Enter identifier here: TS-43

\_\_\_\_\_ Other document adequately describes necessary task elements.  
Enter identifier here: \_\_\_\_\_

X Task elements described as attached.

DESIRED MODE OF EVALUATION:

APPLICABLE EVALUATION SETTING:

SIMULATE/WALKTHROUGH X DISCUSSION \_\_\_\_\_ PERFORM X IN-PLANT \_\_\_\_\_ CONTROL ROOM X

VALIDATED TIME FOR COMPLETION: 12 MINUTES

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM PXXX.XXXCOT  
Revision 0 DRAFT  
January 14, 2002

PERFORM PRESSURIZER HEATER ENERGY INPUT TEST

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EXAMINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

START TIME \_\_\_\_\_ FINISH TIME \_\_\_\_\_

PERFORMANCE ☐ SAT ☐ UNSAT

JOB TITLE: ☐ AOT ☐ COT ☐ SRO ☐ STA

TOOLS/EQUIPMENT/REFERENCES:

TS 43 "Pressurizer Heater Group Energy Input Test" Rev 2

TASK STANDARDS:

T-1D Pressurizer Heater Group D energy input calculated within the given band (see JPM step) and determined to be SAT.

SIMULATOR INFORMATION:

TIME	FAIL	COMPONENT	OPTION	VALUE	RAMP	DELAY	ACT	COND
Use JPM specific Exam IC.								

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**PERFORM PRESSURIZER HEATER ENERGY INPUT TEST**

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

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**INITIAL CONDITIONS:**

You are the Unit 1 Control Operator.

Major maintenance has just been completed on the breaker for the 'D' pressurizer heater group.

A partial performance of TS-43 "Pressurizer Heater Group Energy Input Test" is required for post maintenance testing.

The DOS has marked up a copy of TS-43 for performance **ONLY** on the 'D' pressurizer heater group.

**INITIATING CUES (IF APPLICABLE):**

Complete TS-43 for the 'D' pressurizer heater group and report the results to the DOS.

PERFORM PRESSURIZER HEATER ENERGY INPUT TEST

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PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

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	STEP/SEQUENCE/CRITICAL	SAT
	1 1 Y	UNSAT
<b>ELEMENT:</b>	Record "AS FOUND" position of components AND position to the REQUIRED POSITION.	
<b>STANDARD:</b>	T-1E Pzr Heater Group E "AS FOUND" switch position recorded <u>and</u> placed in PULLOUT. T-1D Pzr Heater Group D "AS FOUND" switch position recorded.	
<b>CUE:</b>	None.	
<b>COMMENTS:</b>		

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	STEP/SEQUENCE/CRITICAL	SAT
	2 2 N	UNSAT
<b>ELEMENT:</b>	T-1D Pzr Heater Group D turned off.	
<b>STANDARD:</b>	Control switch for T-1D Pzr Heater Group D placed in the OFF position.	
<b>CUE:</b>	None	
<b>COMMENTS:</b>		

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PERFORM PRESSURIZER HEATER ENERGY INPUT TEST

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

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	STEP/SEQUENCE/CRITICAL	SAT
	3 3 Y	UNSAT _____

**ELEMENT:** X-14 current reading obtained and recorded.

**STANDARD:** Current reading for X-14 (panel C02) obtained and recorded in Step 5.3.1

**CUE:** None

**COMMENTS:**

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	STEP/SEQUENCE/CRITICAL	SAT
	4 4 Y	UNSAT _____

**ELEMENT:** T-1D Pzr Heater Group D energized and X-14 current recorded.

**STANDARD:** Control switch for T-1D Pzr Heater Group D placed in the ON position and X-14 current obtained and recorded in Step 5.3.1.

**CUE:** None

**COMMENTS:**

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	STEP/SEQUENCE/CRITICAL	SAT
	5 5 Y	UNSAT _____

**ELEMENT:** Bus 1A06 voltage recorded.

**STANDARD:** Bus voltage for Bus 1A06 is recorded from panel C02.

**CUE:** None.

**COMMENTS:**

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**PERFORM PRESSURIZER HEATER ENERGY INPUT TEST**

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**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

**STEP/SEQUENCE/CRITICAL**  
**6 6 N**

**SAT** \_\_\_\_\_  
**UNSAT** \_\_\_\_\_

**ELEMENT:** Return T-1D Pzr Heater Group D to "AS FOUND" condition.

**STANDARD:** The control switch for T-1D Pzr Heater Group D is placed in AUTO.

**CUE:** None.

**COMMENTS:**

---

**STEP/SEQUENCE/CRITICAL**  
**7 6 Y**

**SAT** \_\_\_\_\_  
**UNSAT** \_\_\_\_\_

**ELEMENT:** Return T-1E Pzr Heater Group E to "AS FOUND" condition.

**STANDARD:** The control switch for T-1E Pzr Heater Group E is placed in AUTO (red flagged - ON).

**CUE:** None

**COMMENTS:**

---

**STEP/SEQUENCE/CRITICAL**  
**8 7 Y**

**SAT** \_\_\_\_\_  
**UNSAT** \_\_\_\_\_

**ELEMENT:** Determine Pzr Heater Group D current draw.

**STANDARD:** The first X-14 current reading is correctly subtracted from the second X-14 current reading to obtain the current draw for the D heater group.

**CUE:** None.

**COMMENTS:**

---

PERFORM PRESSURIZER HEATER ENERGY INPUT TEST

---

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

	STEP/SEQUENCE/CRITICAL	SAT
	9 8 Y	UNSAT
<b>ELEMENT:</b>	Calculate the energy input of Pzr Heater Group D (kW).	
<b>STANDARD:</b>	Using the given formula, Pzr heater Group D energy input determined and falls within the band of 111.9 – 142.2 kW.	
<b>CUE:</b>	None	
<b>NOTE:</b>	The kW band is based on an actual correct performance of the JPM with an allowance of a span of one half of a division on the final current value and the voltage value.	
<b>COMMENTS:</b>		

---

	STEP/SEQUENCE/CRITICAL	SAT
	10 9 Y	UNSAT
<b>ELEMENT:</b>	Energy input verified to be within limits of Technical Specifications.	
<b>STANDARD:</b>	Energy input determined to be greater than TS limit of 100 kW and marked as SAT.	
<b>CUE:</b>	None	
<b>COMMENTS:</b>		

---

**TERMINATION CUE:** THIS COMPLETES THIS JPM.

**COMPLETION TIME:** \_\_\_\_\_



POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P003.001COT  
Revision 1 DRAFT  
August 27, 2001  
TOTAL REWRITE

B.L.d

START A REACTOR COOLANT PUMP

---

K/A REFERENCE: 003.K1.13 (2.5/2.5)  
(NUREG-1122) 003.K4.03 (2.5/2.8)  
003.K5.05 (2.8/3.0)  
003.A4.01 (3.3/3.2)  
003.A4.02 (2.9/2.9)  
003.A4.03 (2.8/2.5)  
003.A4.04 (3.1/3.0)  
003.A4.05 (3.1/3.0)  
003.A4.06 (2.9/2.9)  
003.A4.08 (3.2/2.9)

ALTERNATE PATH JPM \_\_\_\_\_ YES   X   NO

**PERFORMANCE CHECKLIST:**

**SATISFACTORY** - Properly performed critical step(s) and/or in sequence (if applicable)

**UNSATISFACTORY** - Improperly performed critical step(s) and/or out of sequence (if applicable)

  X   Procedure adequately addresses task elements.  
Enter identifier here:   OP 4B "Reactor Coolant Pump Operation"  

\_\_\_\_\_ Other document adequately describes necessary task elements.  
Enter identifier here: \_\_\_\_\_

  X   Task elements described as attached.

---

**DESIRED MODE OF EVALUATION:**

**APPLICABLE EVALUATION SETTING:**

SIMULATE/WALKTHROUGH   X   DISCUSSION \_\_\_\_\_ PERFORM   X   IN-PLANT \_\_\_\_\_ CONTROL ROOM   X  

VALIDATED TIME FOR COMPLETION:   14   MINUTES

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P003.001COT  
Revision 1 DRAFT  
August 27, 2001  
TOTAL REWRITE

START A REACTOR COOLANT PUMP

EXAMINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

START TIME \_\_\_\_\_ FINISH TIME \_\_\_\_\_

PERFORMANCE ☐ SAT ☐ UNSAT

JOB TITLE: ☐ AOT ☐ COT ☐ SRO ☐ STA

TOOLS/EQUIPMENT/REFERENCES:

OP 4B, "Reactor Coolant Pump Operation", Rev. 43

TASK STANDARDS:

Start RCP 1A in accordance with OP 4B, "Reactor Coolant Pump Operation".

SIMULATOR INFORMATION:

TIME	FAIL	COMPONENT	OPTION	VALUE	RAMP	DELAY	ACT	COND
Initialize to JPM specific IC (Exam IC #63).								

**NOTE:** *If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

**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.*

START A REACTOR COOLANT PUMP

**READ AND PROVIDE TO THE EXAMINEE**

\*\*\*\*\*

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMs. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

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

\*\*\*\*\*

**INITIAL CONDITIONS:**

- You are the Unit 1 Control Operator.
- Unit 1 is in Mode 3 (Hot Standby).
- 1P-1A RCP had been secured for breaker inspection.
- Inspection has been completed and permission granted to restart 1P-1A.
- OP 4B has been completed UP TO Step 5.0.
- All appropriate precautions, limitations, and prerequisites have been met.
- The BOP operator is available to respond to any alarms unrelated to the task.

**INITIATING CUES (IF APPLICABLE):**

The Shift Manager directs you to start 1P-1A per OP 4B, Section 5.1.

START A REACTOR COOLANT PUMP

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

START TIME	_____	STEP/SEQUENCE/CRITICAL				SAT	_____
		1	1	N		UNSAT	_____

---

**ELEMENT:** CHECK that starting duty limits will not be exceeded.

**STANDARD:** Starting limits checked per P&L 3.5.

**CUE:** Starting limits will not be exceeded (or as indicated on simulator).

**NOTE:** *If asked, 1P-1A RCP was last run 3 days ago.*

**COMMENTS:**

---

		STEP/SEQUENCE/CRITICAL				SAT	_____
		2	1	Y		UNSAT	_____

---

**ELEMENT:** Start the 1P-1A reactor coolant pump oil lift pump (1P-74A).

**STANDARD:** Lift pump started using control switch on 1C04.

**CUE:** Red light is lit for 1P-74A oil lift pump (or as indicated on simulator).

**COMMENTS:**

---

		STEP/SEQUENCE/CRITICAL				SAT	_____
		3	1	N		UNSAT	_____

---

**ELEMENT:** Verify amber 1P-1A RCP lift pressure light illuminates.

**STANDARD:** Lift pressure light verified ON (amber).

**CUE:** Lift pressure light is on (or as shown on simulator).

**NOTE:** *Evaluator should make note of the time the lift pump was started to ensure a minimum of two minutes occurred.*

**COMMENTS:**

START A REACTOR COOLANT PUMP

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

	STEP/SEQUENCE/CRITICAL	SAT
	4 1 N	UNSAT
<b>ELEMENT:</b>	CHECK No. 1 seal leakoff flow within the normal operating range of Figure 1.	
<b>STANDARD:</b>	Seal leakage checked per Figure 1. Determines leakage is within normal operating range.	
<b>CUE:</b>	Seal leakage is 1.5 gpm (or as indicated on simulator). <b>Inform examinee that RCP seal injection flow and charging/letdown flow have been balanced (steps associated with balancing these flows are N/A).</b>	
<b>COMMENTS:</b>		

	STEP/SEQUENCE/CRITICAL	SAT
	5 1 N	UNSAT
<b>ELEMENT:</b>	Adjust charging pump speed and letdown as necessary to maintain letdown flow at 35-40 gpm.	
<b>STANDARD:</b>	Charging pump speed adjusted as necessary. Letdown flow adjusted to 35-40 gpm.	
<b>CUE:</b>	Letdown flow is approximately 37 gpm. Charging pump speed is adjusted to maintain stable pressurizer level (or as indicated on simulator).	
<b>COMMENTS:</b>		

	STEP/SEQUENCE/CRITICAL	SAT
	6 1 N	UNSAT
<b>ELEMENT:</b>	If necessary to preclude excessive flow through demineralizers, then bypass the affected demineralizers.	
<b>STANDARD:</b>	Demineralizers bypassed, if necessary.	
<b>CUE:</b>	The Shift Manager states it is <u>NOT</u> necessary to bypass demineralizers.	
<b>COMMENTS:</b>		

START A REACTOR COOLANT PUMP

---

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

STEP/SEQUENCE/CRITICAL			SAT
7	2	Y	UNSAT
<b>ELEMENT:</b> After RCP oil lift pump has run a minimum of two minutes, then start 1P-1A.			
<b>STANDARD:</b> RCP oil lift pump verified running for two minutes. 1P-1A control switch taken to START, red breaker indicating light verified ON.			
<b>CUE:</b> If two minutes have not elapsed and this is recognized by the examinee, the examinee may be informed that two minutes have elapsed. 1P-1A red light is lit (or as indicated on simulator).			
<b>COMMENTS:</b>			

---

START A REACTOR COOLANT PUMP

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

	STEP/SEQUENCE/CRITICAL		SAT
	8	3	N
			UNSAT

**ELEMENT:** Check the following:

- RCP running current normal (<620 amps, RCS at normal operating temp)
- Labyrinth seal DP >15 inches
- No. 1 seal DP >200 psid
- Seal water inlet/bearing temp <150°F
- Seal water outlet temperature <170°F
- RCP motor bearing temperatures (upper and lower) <90°C
- VCT pressure >15 psig
- RCS pressure stabilized
- CC return temperatures <120°F
- DMIMS – No alarms

**STANDARD:** RCP conditions are verified within the normal limits above.

**CUE:**

- RCP current 595 amps (or as indicated on simulator)
- Lab seal DP is 35 inches (or as indicated on simulator)
- No. 1 seal DP >400 (or as indicated on simulator)
- Seal water inlet/bearing temp 115°F (or as indicated on simulator)
- Seal water outlet temperature 151°F (or as indicated on simulator)
- RCP motor bearing temperatures (upper and lower) are 55°C (or as indicated on simulator)
- VCT pressure is 28 psig (or as indicated on simulator)
- RCS pressure is stable (or as indicated on simulator)
- CC Return temperatures are 95°F (or as indicated on simulator)
- No DMIMS alarms (or as indicated on simulator)

*When examinee begins to go behind IC04 to check RCP motor bearing temperatures on TR-2001, inform examinee that all temperatures are approximately 55 °C.*

**COMMENTS:**

	STEP/SEQUENCE/CRITICAL		SAT
	9	3	Y
			UNSAT

**ELEMENT:** Stop oil lift pump after one minute of RCP operation.

**STANDARD:** Lift pump (1P-74A) taken to STOP and green light verified lit.

**CUE:** Green light lit above 1P-1A Oil Lift pump (or as indicated on simulator).

**COMMENTS:**

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P003.001COT  
Revision 1 DRAFT  
August 27, 2001  
TOTAL REWRITE

START A REACTOR COOLANT PUMP

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

	STEP/SEQUENCE/CRITICAL		SAT
	10	3	N
			UNSAT

**ELEMENT:** Check RCP 1A loss of power bistable is OFF.

**STANDARD:** Observes RCP 1A loss of power bistable is OFF on the reactor protection/safeguard status panel.

**CUE:** Light is OFF (or as indicated on simulator).

**COMMENTS:**

---

	STEP/SEQUENCE/CRITICAL		SAT
	11	3	N
			UNSAT

**ELEMENT:** Steps 5.1.12 and 5.1.13 are N/A'd.

**STANDARD:** As above.

**CUE:** RCS pressure is within band, demineralizers were not bypassed.

**COMMENTS:**

---

**TERMINATION CUE:** THIS COMPLETES THE JPM.

**COMPLETION TIME:** \_\_\_\_\_



RESPOND TO FAILURE OF CONTAINMENT SPRAY

B.l.e

K/A REFERENCE: 026.A2.03 (4.1/4.4)  
(NUREG-1122)

ALTERNATE PATH JPM ☒ YES ☐ NO

PERFORMANCE CHECKLIST:

SATISFACTORY - Properly performed critical step(s) and/or in sequence (if applicable)

UNSATISFACTORY - Improperly performed critical step(s) and/or out of sequence (if applicable)

☒ Procedure adequately addresses task elements.  
Enter identifier here: EOP-0 Unit 1 Attachment A

☐ Other document adequately describes necessary task elements.  
Enter identifier here: \_\_\_\_\_

☒ Task elements described as attached.

DESIRED MODE OF EVALUATION:

APPLICABLE EVALUATION SETTING:

SIMULATE/WALKTHROUGH ☒ DISCUSSION ☐ PERFORM ☐ IN-PLANT ☐ CONTROL ROOM ☒

VALIDATED TIME FOR COMPLETION: 10 MINUTES

RESPOND TO FAILURE OF CONTAINMENT SPRAY

---

EXAMINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

START TIME \_\_\_\_\_ FINISH TIME \_\_\_\_\_

PERFORMANCE ☐ SAT ☐ UNSAT

JOB TITLE: ☐ AOT ☐ COT ☐ SRO ☐ STA

TOOLS/EQUIPMENT/REFERENCES:

Attachment A of EOP-0 Unit 1 "Reactor Trip or Safety Injection" Rev 37.

TASK STANDARDS:

One train of Containment Spray is actuated, the other train is shutdown per Attachment A of EOP-0.

SIMULATOR INFORMATION:

TIME	FAIL	COMPONENT	OPTION	VALUE	RAMP	DELAY	ACT	COND
Initialize to JPM specific saved IC (Exam IC #66).								

**NOTE:** If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.

**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.

**RESPOND TO FAILURE OF CONTAINMENT SPRAY**

---

**READ AND PROVIDE TO THE EXAMINEE**

\*\*\*\*\*

**THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMs. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.**

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

\*\*\*\*\*

**INITIAL CONDITIONS:**

You are the BOP operator (3<sup>rd</sup> license). Unit 1 has experienced a loss of reactor coolant inside containment. The control room crew is currently performing actions of EOP-0. The DOS has tasked you with performing actions of EOP-0, Attachment A "Automatic Action Verification". This attachment is currently in progress and complete through step A9.

**INITIATING CUES (IF APPLICABLE):**

The DOS directs you to continue with the actions of EOP-0 Attachment A, beginning at step A10.

**RESPOND TO FAILURE OF CONTAINMENT SPRAY**

---

**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

START TIME	STEP/SEQUENCE/CRITICAL			SAT
	1	1	N	UNSAT

---

**ELEMENT:** Check Control Room Ventilation in Accident Mode

**STANDARD:**

- At least one Control Room recirc fan is running, W-13B1 or W-13B2.
- Control Room damper solenoid valve purple light is lit

**CUE:** W-13B1 is running (or as indicated on simulator).  
Control Room damper solenoid valve purple light is lit (or as indicated on simulator).

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL			SAT
2	1	N	UNSAT

---

**ELEMENT:** Check if Main Steam Lines can remain open.

**STANDARD:** MSIVs determined to be closed, transition made via RNO to next procedural step.

**CUE:** Green light is lit for both MSIVs (or as indicated on simulator).

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL			SAT
3	1	N	UNSAT

---

**ELEMENT:** Verify proper SI valve alignment.

**STANDARD:**

- All lights checked lit on "Unit 1 SI Active" status panel.
- No lights checked lit on "Unit 1 SI-Spray Ready" status panel.

**CUE:** All lights are lit on "Unit 1 SI Active" status panel (or as indicated on simulator).  
No lights are lit on "Unit 1 SI-Spray Ready" status panel (or as indicated on simulator).

**COMMENTS:**

---

**RESPOND TO FAILURE OF CONTAINMENT SPRAY**

---

**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

	STEP/SEQUENCE/CRITICAL	SAT
	4      2      N	UNSAT
<b>ELEMENT:</b>	Check containment pressure has remained less than 25 psig.	
<b>STANDARD:</b>	Recorders IPR-968 and IPR-969 checked to see if containment has exceeded 25 psig.	
<b>CUE:</b>	Containment pressure is 27 psig (or as indicated on simulator).	
<b>NOTE:</b>	<i>This begins the Alternate Path portion of this JPM.</i>	
<b>COMMENTS:</b>		

---

	STEP/SEQUENCE/CRITICAL	SAT
	5      2      N	UNSAT
<b>ELEMENT:</b>	Check containment spray actuated.	
<b>STANDARD:</b>	Annunciator C01 B 2-6 checked to see if lit.	
<b>CUE:</b>	Annunciator C01 B 2-6 is not lit (or as indicated on simulator).	
<b>NOTE:</b>	<i>Examinee may inform DOS of the failure of containment spray to automatically actuate and the need to manually actuate spray. Examiner should acknowledge report.</i>	
<b>COMMENTS:</b>		

---

	STEP/SEQUENCE/CRITICAL	SAT
	6      3      N	UNSAT
<b>ELEMENT:</b>	Manual actuation of both trains of containment spray is required.	
<b>STANDARD:</b>	BOTH containment spray manual initiation pushbuttons are depressed simultaneously.	
<b>CUE:</b>	BOTH pushbuttons are depressed, the containment spray system does not actuate (or as indicated in simulator).	
<b>NOTE:</b>	<i>Examinee may inform DOS of the failure of containment spray to automatically and manually actuate and the need to manually align spray. Examiner should acknowledge report.</i>	
<b>COMMENTS:</b>		

---

**RESPOND TO FAILURE OF CONTAINMENT SPRAY**

---

**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

**STEP/SEQUENCE/CRITICAL**  
**7 4 Y**

**SAT** \_\_\_\_\_  
**UNSAT** \_\_\_\_\_

**ELEMENT:** Ensure ALL containment spray pump discharge MOVs open.

**STANDARD:** Discharge valves ISI-860A, ISI-860B, ISI-860C, and ISI-860D are all manually opened using the control switches.

**CUE:** Red light is lit above all 4 containment spray discharge MOVs (or as indicated on simulator).

**COMMENTS:**

---

**STEP/SEQUENCE/CRITICAL**  
**8 5 Y**

**SAT** \_\_\_\_\_  
**UNSAT** \_\_\_\_\_

**ELEMENT:** Ensure at least one containment spray pump is running.

**STANDARD:** One or both containment spray pumps are manually started using the control switch(es).

**CUE:** Red light is lit above each containment spray pump that was manually started (or as indicated on simulator).

**COMMENTS:**

---

**STEP/SEQUENCE/CRITICAL**  
**9 6 Y**

**SAT** \_\_\_\_\_  
**UNSAT** \_\_\_\_\_

**ELEMENT:** Shut down one train of containment spray.

**STANDARD:** If BOTH containment spray pumps are running, one pump is stopped and its control switch is placed in pull-out. If only one pump is currently running, the control switch for the idle pump is placed in pull-out.

**CUE:** Red light is lit for one spray pump, the other has no lights lit and its control switch is in pull-out (or as indicated on simulator).

**COMMENTS:**

---

**RESPOND TO FAILURE OF CONTAINMENT SPRAY**

---

**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

**STEP/SEQUENCE/CRITICAL**  
**10          7          Y**

**SAT** \_\_\_\_\_  
**UNSAT** \_\_\_\_\_

**ELEMENT:**      Ensure suction on idle spray pump is shut.

**STANDARD:**    The suction valve for the **idle** pump is shut (1SI-870A for 1P-14A, 1SI-870B for 1P-14B).

**CUE:**            The green light is lit on the suction valve of the idle pump (or as indicated on simulator).

**COMMENTS:**

**STEP/SEQUENCE/CRITICAL**  
**11          8          Y**

**SAT** \_\_\_\_\_  
**UNSAT** \_\_\_\_\_

**ELEMENT:**      Ensures at least one spray additive eductor suction valve open (1SI-836A or 1SI-836B) when containment spray has been actuated for >2 minutes.

**STANDARD:**    One or both spray additive eductor suction valves opened (1SI-836A , 1SI-836B) when two minutes has elapsed since containment spray actuation.

**CUE:**            One or both eductor valve controllers indicate open after placing in manual and opening (or as indicated on simulator).

**COMMENTS:**

RESPOND TO FAILURE OF CONTAINMENT SPRAY

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

	STEP/SEQUENCE/CRITICAL	SAT
	12 9 N	UNSAT
<b>ELEMENT:</b>	Verify SI Flow	
<b>STANDARD:</b>	<ul style="list-style-type: none"><li>• RCS pressure checked &lt; 1400 psig</li><li>• SI Pump flow verified for each train (1FI-925 and 924)</li><li>• RCS wide range pressure checked &lt; (425 psig) 200 psig</li><li>• RHR Pump flow verified for each train (1FI-626 and 928)</li></ul>	
<b>CUE:</b>	All above conditions are met (or as indicated on simulator). <b>When the last step of the attachment is finished, the JPM is complete.</b>	
<b>COMMENTS:</b>		

TERMINATION CUE: THIS COMPLETES THE JPM.

COMPLETION TIME: \_\_\_\_\_



POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P045.005COT  
Revision 2 DRAFT  
August 27, 2001  
TOTAL REWRITE

SYNCHRONIZE TURBINE GENERATOR AND PLACE  
ONTO THE GRID

B.I.f

K/A REFERENCE: 062.K4.05 (2.7/3.2)  
(NUREG-1122) 062.K5.03 (2.4/2.6)  
062.A1.05 (2.3/2.4)  
062.A3.02 (2.4/2.2)  
062.A4.01 (3.3/3.1)  
062.A4.03 (2.8/2.9)  
062.A4.07 (3.1/3.1)

ALTERNATE PATH JPM \_\_\_\_\_ YES X NO

PERFORMANCE CHECKLIST:

SATISFACTORY - Properly performed critical step(s) and/or in sequence (if applicable)

UNSATISFACTORY - Improperly performed critical step(s) and/or out of sequence (if applicable)

X Procedure adequately addresses task elements.  
Enter identifier here: OP-1C "Startup To Power Operation"

\_\_\_\_\_ Other document adequately describes necessary task elements.  
Enter identifier here: \_\_\_\_\_

X Task elements described as attached.

DESIRED MODE OF EVALUATION:

APPLICABLE EVALUATION SETTING:

SIMULATE/WALKTHROUGH X DISCUSSION \_\_\_\_\_ PERFORM X IN-PLANT \_\_\_\_\_ CONTROL ROOM X

VALIDATED TIME FOR COMPLETION: 15 MINUTES

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P045.005COT  
Revision 2 DRAFT  
August 27, 2001  
TOTAL REWRITE

SYNCHRONIZE TURBINE GENERATOR AND PLACE  
ONTO THE GRID

EXAMINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

START TIME \_\_\_\_\_ FINISH TIME \_\_\_\_\_

PERFORMANCE ☐ SAT ☐ UNSAT

JOB TITLE: ☐ AOT ☐ COT ☐ SRO ☐ STA

TOOLS/EQUIPMENT/REFERENCES:

OP-1C "Startup To Power Operation" Rev 79

TASK STANDARDS:

Main generator phased onto the grid at minimum load in accordance with OP-1C.

SIMULATOR INFORMATION:

TIME	FAIL	COMPONENT	OPTION	VALUE	RAMP	DELAY	ACT	COND
Initialize to JPM specific saved IC (Exam IC #67).								

**NOTE:** *This JPM is written to be performed on either unit.*

**NOTE:** *If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

**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.*

SYNCHRONIZE TURBINE GENERATOR AND PLACE  
ONTO THE GRID

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**READ AND PROVIDE TO THE EXAMINEE**

\*\*\*\*\*

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMs. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

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

\*\*\*\*\*

**INITIAL CONDITIONS:**

You are the BOP operator. Unit 1 is at low power with OP-1C complete through Step 5.79. The secondary is started up and the turbine generator is ready to be placed on the grid. The CO is available to respond to alarms not related to this task. All applicable precautions, limitations, and prerequisites have been met.

**INITIATING CUES (IF APPLICABLE):**

The Shift Manager directs you to place the turbine generator on the grid per OP-1C, starting at Step 5.80.

SYNCHRONIZE TURBINE GENERATOR AND PLACE  
ONTO THE GRID

---

**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

START TIME	STEP/SEQUENCE/CRITICAL	SAT
	1 1 Y	UNSAT

---

**ELEMENT:** Ensure turbine speed between 1750 and 1800 rpm, **AND** CLOSE the Unit 1 generator exciter field breaker.

**STANDARD:** Turbine speed checked on 1C03 to be between 1750 and 1800 rpm, exciter field breaker closed using its control switch on C01.

**CUE:** Turbine speed is 1800 rpm and red light is lit above exciter field breaker (or as indicated on simulator).

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL	SAT
2 2 N	UNSAT

---

**ELEMENT:** Slowly adjust the Unit 1 generator voltage regulator DC adjuster to obtain Unit 1 generator voltmeter indication of approximately 19 kV at 1800 rpm.

**STANDARD:** Voltage adjusted to 19 kV on C01 using DC adjuster.

**CUE:** The voltage is adjusted to 19 kV at 1800 rpm (or as indicated on simulator).

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL	SAT
3 3 N	UNSAT

---

**ELEMENT:** Ensure all three phases approximately 19 kV, using Unit 1 generator voltmeter switch.

**STANDARD:** Phase voltages verified at 19 kV on C01.

**CUE:** The phase voltage is verified to be at 19 kV (or as indicated on simulator).

**COMMENTS:**

---

SYNCHRONIZE TURBINE GENERATOR AND PLACE  
ONTO THE GRID

---

**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

STEP/SEQUENCE/CRITICAL			SAT
4	4	Y	UNSAT
<hr/>			
<b>ELEMENT:</b>	For automatic voltage regulation:		
	1. PLACE Unit 1 generator voltage regulator to TEST, <u>AND</u> ensure yellow light is lit.		
	2. Ensure the generator voltage regulator balance meter is approximately zero using the Unit 1 generator voltage regulator AC adjuster.		
	3. PLACE Unit 1 generator voltage regulator to AUTO <u>AND</u> ensure red light is lit.		
<b>STANDARD:</b>	Automatic voltage regulation set up as above.		
<b>CUE:</b>	1. The regulator switch is in TEST, the yellow light is lit (or as indicated on simulator).		
	2. The balance meter now reads zero (or as indicated on simulator).		
	3. The voltage regulator switch is in AUTO, red light is lit (or as indicated on simulator).		
<b>COMMENTS:</b>			

---

STEP/SEQUENCE/CRITICAL			SAT
5	5	Y	UNSAT
<hr/>			
<b>ELEMENT:</b>	PLACE the Unit 1 generator breaker 122 synchroscope switch to ON.		
<b>STANDARD:</b>	Synchroscope placed to ON.		
<b>CUE:</b>	The synchroscope is on (or as indicated on simulator).		
<b>NOTE:</b>	<i>Incoming voltmeter reading is generator voltage. Running voltmeter reading represents line voltage.</i>		
<b>COMMENTS:</b>			

---

SYNCHRONIZE TURBINE GENERATOR AND PLACE  
ONTO THE GRID

---

**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

STEP/SEQUENCE/CRITICAL  
6 6 Y

SAT  
UNSAT

**ELEMENT:** ADJUST incoming voltmeter reading to match running voltmeter reading, using the Unit 1 generator voltage regulator AC adjuster.

**STANDARD:** Voltages matched as above.

**CUE:** Incoming and running voltages matched (or as indicated on simulator).

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL  
7 7 N

SAT  
UNSAT

**ELEMENT:** Ensure Unit 1 generator exciter field ammeter at LESS THAN 23 amps.

**STANDARD:** Exciter field current verified as above.

**CUE:** Exciter field current is 20 amps (or as indicated on simulator).

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL  
8 8 Y

SAT  
UNSAT

**ELEMENT:** ADJUST turbine speed (using reference control raise and lower pushbuttons) as necessary to rotate the synchroscope 2 to 5 rpm in the "FAST" direction.

**STANDARD:** Synchroscope rotating slowly in "FAST" direction as above. Adjustment made using Reference/Setter turbine controls on 1C03 to raise or lower turbine speed as necessary.

**CUE:** The synchroscope is rotating slowly in the "FAST" direction at 2-5 rpm (or as indicated on simulator).

**COMMENTS:**

---

SYNCHRONIZE TURBINE GENERATOR AND PLACE  
ONTO THE GRID

---

**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

	STEP/SEQUENCE/CRITICAL	SAT
	9 9 Y	UNSAT
<b>ELEMENT:</b>	REMOVE 1F52-122 from PULLOUT.	
<b>STANDARD:</b>	1F52-122 out of PULLOUT on C01.	
<b>CUE:</b>	1F52-122 removed from PULLOUT, green light is lit (or as indicated on simulator).	
<b>COMMENTS:</b>		

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	STEP/SEQUENCE/CRITICAL	SAT
	10 10 Y	UNSAT
<b>ELEMENT:</b>	<u>WHEN</u> the synchroscope is just before 12:00 <u>AND</u> within the green band, <u>THEN</u> CLOSE 1F52-122 Unit 1 generator main breaker.	
<b>STANDARD:</b>	Unit 1 generator main breaker CLOSED on C01 and time recorded in OP-1C.	
<b>CUE:</b>	The red light is lit for the Unit 1 generator main breaker (or as indicated on simulator). The synchroscope has stopped at the 12 o'clock position (or as indicated on simulator).	
<b>NOTE:</b>	<i>It is not critical to record times.</i>	
<b>COMMENTS:</b>		

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SYNCHRONIZE TURBINE GENERATOR AND PLACE  
ONTO THE GRID

---

**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

	STEP/SEQUENCE/CRITICAL	SAT
	11 11 N	UNSAT
<b>ELEMENT:</b>	Ensure the following: 1. 20-30 MWe Unit 1 generator wattmeter. 2. Unit 1 generator varmeter indicates a positive number (MVARs in out direction). 3. "LOAD CONTROL" status light is lit.	
<b>STANDARD:</b>	Status of generator load VERIFIED as above.	
<b>CUE:</b>	1. 24 MWe indicated on Unit 1 generator wattmeter (or as indicated on simulator). 2. Unit 1 generator varmeter indicates a positive number (or as indicated on simulator). 3. "LOAD CONTROL" status light is lit (or as indicated on simulator).	
<b>COMMENTS:</b>		

---

	STEP/SEQUENCE/CRITICAL	SAT
	12 11 N	UNSAT
<b>ELEMENT:</b>	PLACE the Unit 1 generator breaker 122 synchroscope switch to OFF.	
<b>STANDARD:</b>	Synchroscope OFF.	
<b>CUE:</b>	The synchroscope switch is OFF (or as indicated on simulator).	
<b>COMMENTS:</b>		

---



SYNCHRONIZE TURBINE GENERATOR AND PLACE  
ONTO THE GRID

---

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

	STEP/SEQUENCE/CRITICAL			SAT
	13	11	N	UNSAT
<b>ELEMENT:</b>	Make notification that the unit is online.			
<b>STANDARD:</b>	WEPOG notified per NP 2.1.5.			
<b>CUE:</b>	WEPOG acknowledges the report.			
<b>NOTE:</b>	<i>Examinee may inform the Shift Manager that unit is on line and that WEPOG needs to notified.</i>			
<b>COMMENTS:</b>				

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**TERMINATION CUE:** THIS COMPLETES THE JPM.

**COMPLETION TIME:** \_\_\_\_\_

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.015COT  
Revision 3 DRAFT  
August 27, 2001  
TOTAL REWRITE

RESPOND TO A LOSS OF COMPONENT COOLING  
WATER

B, l, g

K/A REFERENCE: 008.K4.02 (2.9/2.7)  
(NUREG-1122) 008.A1.04 (3.1/3.2)  
008.A2.02 (3.2/3.5)  
008.A4.07 (2.9/2.9)  
026.AA1.05 (3.1/3.1)  
026.AA2.02 (2.9/3.6)

ALTERNATE PATH JPM ☒ YES ☐ NO

PERFORMANCE CHECKLIST:

SATISFACTORY - Properly performed critical step(s) and/or in sequence (if applicable)

UNSATISFACTORY - Improperly performed critical step(s) and/or out of sequence (if applicable)

☒ Procedure adequately addresses task elements.  
Enter identifier here: AOP-9B "Component Cooling System Malfunction"

☐ Other document adequately describes necessary task elements.  
Enter identifier here: \_\_\_\_\_

☒ Task elements described as attached.

DESIRED MODE OF EVALUATION:

APPLICABLE EVALUATION SETTING:

SIMULATE/WALKTHROUGH ☒ DISCUSSION ☐ PERFORM ☒ IN-PLANT ☐ CONTROL ROOM ☒

VALIDATED TIME FOR COMPLETION: 15 MINUTES

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.015COT  
Revision 3 DRAFT  
August 27, 2001  
TOTAL REWRITE

RESPOND TO A LOSS OF COMPONENT COOLING  
WATER

EXAMINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

START TIME \_\_\_\_\_ FINISH TIME \_\_\_\_\_

PERFORMANCE ☐ SAT ☐ UNSAT

JOB TITLE: ☐ AOT ☐ COT ☐ SRO ☐ STA

TOOLS/EQUIPMENT/REFERENCES:

AOP-9B Unit 1 "Component Cooling System Malfunction" Rev 16

TASK STANDARDS:

Respond to a loss of component cooling water in excess of make-up capacity in accordance with AOP-9B, "Component Cooling System Malfunction".

SIMULATOR INFORMATION:

TIME	FAIL	COMPONENT	OPTION	VALUE	RAMP	DELAY	ACT	COND
Initialize to JPM specific IC (Exam IC#65)								
<b>NOTE: The JPM administrator should insert the malfunction and bring in the CCW Surge Tank low level alarm, then FREEZE the simulator and administer the JPM (unless set up ahead of time). DO NOT TAKE SIMULATOR TO RUN UNTIL EXAMINEE IS READY TO BEGIN THE JPM. ENSURE RX MAKE-UP WATER SIGN IS PROPERLY POSITIONED ON BACK OF C01. TREND CCW LEVEL FOR NRC RECORD PURPOSES.</b>								

**NOTE: If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.**

**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.**

RESPOND TO A LOSS OF COMPONENT COOLING  
WATER

---

**READ AND PROVIDE TO THE EXAMINEE**

\*\*\*\*\*

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

\*\*\*\*\*

**INITIAL CONDITIONS:**

- You are the Unit 1 Control Operator.
- Both Units are at 100% power.
- The following indications/alarms occur:
  - (1) CCW surge tank low level alarm.
  - (2) CCW surge tank level lowering.
  - (3) Auxiliary Building -19 ft sump high level alarm.
- The PAB AO has been dispatched to investigate the Auxiliary Building Sump alarm.

**INITIATING CUE(S) / TASK TO BE PERFORMED (SIMULATED):**

The Shift Manager directs you to respond to the indications/alarms, taking any corrective actions required in accordance with AOP-9B, "Component Cooling System Malfunction."

RESPOND TO A LOSS OF COMPONENT COOLING  
WATER

---

**PERFORMANCE INFORMATION**

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

START TIME	STEP/SEQUENCE/CRITICAL	SAT
	1 1 N	UNSAT

---

**ELEMENT:** Check at least one component cooling pump running (1P-11A or 1P-11B).

**STANDARD:** Checked that one CCW pump is running on 1C03.

**CUE:** One CCW pump red light on, green light off (or as indicated on simulator).

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL	SAT
2 1 N	UNSAT

---

**ELEMENT:** Check Component Cooling surge tank level lowering.

- 1LI-618B
- PPCS Point YYLT 618
- {New PPCS point L-618}

**STANDARD:** CCW surge tank level stability checked by at least one of the above noted indications.

**CUE:** CCW surge tank level is lowering (or as indicated on simulator).

**NOTE:** *At any time, should CCW surge level lower to less than 10% or examinee determines that surge tank level cannot be maintained above 10%, examinee may take the actions of Step 3 RNO of AOP-9B. Examiner should proceed to Step 9/Sequence 5 of this JPM.*

**COMMENTS:**

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POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.015COT  
Revision 3 DRAFT  
August 27, 2001  
TOTAL REWRITE

RESPOND TO A LOSS OF COMPONENT COOLING  
WATER

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

	STEP/SEQUENCE/CRITICAL	SAT
	3 2 Y	UNSAT
<b>ELEMENT:</b>	Start reactor makeup water pump aligned for services. <ul style="list-style-type: none"><li>• P-23A</li><li>• P-23B</li></ul>	
<b>STANDARD:</b>	Start either P-23A or P-23B, whichever is aligned for services, behind C01.	
<b>CUE:</b>	P-23A or B red light is lit, green light is off (or as indicated on simulator).	
<b>COMMENTS:</b>		

	STEP/SEQUENCE/CRITICAL	SAT
	4 2 N	UNSAT
<b>ELEMENT:</b>	Ensure component cooling surge tank vent (1CC-17) open.	
<b>STANDARD:</b>	1CC-17 is opened or verified open on 1C03.	
<b>CUE:</b>	1CC-17 red indicating light is on, green light is off (or as indicated on simulator).	
<b>COMMENTS:</b>		

	STEP/SEQUENCE/CRITICAL	SAT
	5 3 Y	UNSAT
<b>ELEMENT:</b>	Cycle emergency make-up valve 1CC-815 as necessary to maintain level between 20% and 60%	
<b>STANDARD:</b>	1CC-815 is opened and component cooling surge tank level trend is monitored. Recognizes that CCW surge tank level is still lowering.	
<b>CUE:</b>	<b>If examinee contacts PAB AO and requests that local fill valve 1CC-773 be opened, then acknowledge the request. The examiner can report back that 1CC-773 is full open approximately 2-3 minutes after the request (i.e. there will be no change in the level trend).</b> Red light is lit, green light is off for 1CC-815. Component cooling surge tank level is still lowering. (or as indicated on simulator).	
<b>COMMENTS:</b>		

RESPOND TO A LOSS OF COMPONENT COOLING  
WATER

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

	STEP/SEQUENCE/CRITICAL	SAT
	6 3 N	UNSAT
<b>ELEMENT:</b>	Isolate leak per Attachment A, "Leak Isolation For Lowering Surge Tank Level", while continuing with this procedure.	
<b>STANDARD:</b>	Using Attachment A, control room alarms/indications, and reports, identify that system leakage is to Atmosphere (A3 applies).	
<b>CUE:</b>	The PAB AO reports that water is spraying from the common discharge pipe in the area below C-59 by the shortline and that no isolation valves exist to stop the leakage.	
<b>NOTE:</b>	<i>The examinee, upon recognizing that the leak cannot be isolated and that full CCW make-up is insufficient to maintain Surge Tank level, should recommend a plant shutdown or a plant trip. Examinee may raise concerns about chromate spill, however, should not be distracted from this AOP by concurrently entering into the hazardous spill AOP.</i>	
<b>COMMENTS:</b>		

	STEP/SEQUENCE/CRITICAL	SAT
	7 4 N	UNSAT
<b>ELEMENT:</b>	Check component cooling surge tank level stable	
<b>STANDARD:</b>	Recognize that component cooling surge tank level is NOT STABLE and continue with the procedure.	
<b>CUE:</b>	Surge tank level is lowering (or as indicated on simulator).	
<b>COMMENTS:</b>		

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.015COT  
Revision 3 DRAFT  
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TOTAL REWRITE

RESPOND TO A LOSS OF COMPONENT COOLING  
WATER

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

	STEP/SEQUENCE/CRITICAL	SAT
	8 4 N	UNSAT
<b>ELEMENT:</b>	Check surge tank level greater than 10% <ul style="list-style-type: none"><li>• 1LI-618B</li><li>• PPCS Point YYLT618</li><li>• (New PPCS point L-618)</li></ul>	
<b>STANDARD:</b>	Check surge tank level using one of the above indicators.	
<b>CUE:</b>	Surge tank level is 10% (or as indicated on simulator).	
<b>NOTE:</b>	<i>If actual surge tank level is &gt; 10%, examinee should continue with procedure. Level will continue to lower. Examinee MUST recognize when level drops below 10% and perform step 3 RNO actions of the AOP (this is a continuous action step).</i>	
<b>COMMENTS:</b>		

	STEP/SEQUENCE/CRITICAL	SAT
	9 5 Y	UNSAT
<b>ELEMENT:</b>	Perform the following: <ul style="list-style-type: none"><li>• Place 1P-11A and 1P-11B, component cooling water pumps in PULL-OUT.</li><li>• Trip reactor, stabilize plant with EOPs while continuing with AOP-9B.</li><li>• Stop RCPs</li></ul>	
<b>STANDARD:</b>	<ul style="list-style-type: none"><li>• Place Component Coolant Water pumps to PULL-OUT on 1C03.</li><li>• Trip the reactor from 1C04 or C01.</li><li>• Stop any running RCPs.</li></ul>	
<b>CUE:</b>	<p>After the examinee trips the reactor and performs the immediate actions of EOP-0, inform the examinee that the immediate actions have been verified and to continue with actions of AOP-9B.</p> <p>When the RCPs are tripped, this completes this JPM.</p>	
<b>COMMENTS:</b>		

TERMINATION CUE: THIS COMPLETES THE JPM.

COMPLETION TIME: \_\_\_\_\_



POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.036aAOT  
Revision 0 DRAFT  
August 27, 2001

MAKEUP TO RWST DURING LOSS OF CONTAINMENT  
SUMP RECIRCULATION

B.2.a

K/A REFERENCE: E11.EK1.2 (3.6/4.1)  
(NUREG-1122) E11.EK3.2 (3.5/4.0)  
E11.EK3.3 (3.8/3.8)

ALTERNATE PATH JPM \_\_\_\_\_ YES X NO

**PERFORMANCE CHECKLIST:**

**SATISFACTORY** - Properly performed critical step(s) and/or in sequence (if applicable)

**UNSATISFACTORY** - Improperly performed critical step(s) and/or out of sequence (if applicable)

X Procedure adequately addresses task elements.  
Enter identifier here: Unit 1 ECA-1.1 Attachment A

\_\_\_\_\_ Other document adequately describes necessary task elements.  
Enter identifier here: \_\_\_\_\_

X Task elements described as attached.

**DESIRED MODE OF EVALUATION:**

**APPLICABLE EVALUATION SETTING:**

SIMULATE/WALKTHROUGH X DISCUSSION \_\_\_\_\_ PERFORM X IN-PLANT X CONTROL ROOM \_\_\_\_\_

VALIDATED TIME FOR COMPLETION: 15 MINUTES

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.036aAOT  
Revision 0 DRAFT  
August 27, 2001

MAKEUP TO RWST DURING LOSS OF CONTAINMENT  
SUMP RECIRCULATION

---

EXAMINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

START TIME \_\_\_\_\_ FINISH TIME \_\_\_\_\_

PERFORMANCE ☐ SAT ☐ UNSAT

JOB TITLE: ☐ AOT ☐ COT ☐ SRO ☐ STA

TOOLS/EQUIPMENT/REFERENCES:

ECA-1.1 "Loss of Containment Sump Recirculation, RWST REFILL" Attachment A, Rev 26

TASK STANDARDS:

RWST refill initiated per Section A2 of ECA-1.1, Attachment A.

SIMULATOR INFORMATION:

TIME	FAIL	COMPONENT	OPTION	VALUE	RAMP	DELAY	ACT	COND
None								

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MAKEUP TO RWST DURING LOSS OF CONTAINMENT  
SUMP RECIRCULATION

---

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

\*\*\*\*\*

**INITIAL CONDITIONS:**

- Unit 1 is shutdown due to a large RCS leak inside containment.
- Neither RHR/SI train has been able to be placed on containment sump recirculation.
- The Unit 1 RWST is empty.

**INITIATING CUES (IF APPLICABLE):**

The Shift Manager directs you to line-up and refill the Unit 1 RWST from the Fuel Transfer Canal using P-9, Holdup Tank Recirculating Pump per ECA-1.1, Attachment A, step A2. The fuel transfer canal is filled and the canal doors are shut.

MAKEUP TO RWST DURING LOSS OF CONTAINMENT  
SUMP RECIRCULATION

---

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

START TIME	STEP/SEQUENCE/CRITICAL	SAT
	1 1 N	UNSAT

---

**ELEMENT:** At MCC B-33, ensure P-9 CVCS HUT recirc pump breaker on (B52-334F).

**STANDARD:** B52-334F is verified closed (ON) at B-33.

**CUE:** When located, breaker B52-334F is ON.

**NOTE:** *Examinee may indicate that he/she will depress the thermal overload RESET pushbutton. This is not required for successful completion of this JPM*

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL	SAT
2 2 N	UNSAT

---

**ELEMENT:** IF holdup tank recirculation pump is running, THEN locally stop the pump (P-9).

**STANDARD:** Ensures P-9 is NOT running by checking red light off and/or locally identifying pump is not running.

**CUE:** P-9 red light is off, pump is not running.

**COMMENTS:**

---

MAKEUP TO RWST DURING LOSS OF CONTAINMENT  
SUMP RECIRCULATION

---

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

STEP/SEQUENCE/CRITICAL			SAT
3	3	N	UNSAT
<hr/>			
<b>ELEMENT:</b>	Locally ensure the following valves are shut:		
	1) P-9 recirculation pump suction (BS-1112).		
	2) P-9 recirculation pump discharge (BS-1109).		
	3) Spent fuel pool drain to T-8B CVCS holdup tank inlet (BS-1119).		
	4) P-9 HUT recirc pump return to spent fuel pool (SF-785A).		
	5) P-9 HUT recirc pump return to transfer canal (SF-785C).		
<b>STANDARD:</b>	Near P-9, ensures above valves are shut by checking position of each.		
<b>CUE:</b>	1) BS-1112 valve operating handle is perpendicular to piping.		
	2) BS-1109 valve operating handle is perpendicular to piping.		
	3) BS-1119 valve operating handle is perpendicular to piping.		
	4) SF-785A stem is inserted.		
	5) SF-785C stem is inserted.		
<b>COMMENTS:</b>			

STEP/SEQUENCE/CRITICAL			SAT
4	4	Y	UNSAT
<hr/>			
<b>ELEMENT:</b>	Locally open P-9 HUT recirc pump suction from transfer canal (SF-785B).		
<b>STANDARD:</b>	SF-785B is located and opened by turning handwheel in counter-clockwise direction.		
<b>CUE:</b>	SF-785B stem is extended.		
<b>COMMENTS:</b>			

---

MAKEUP TO RWST DURING LOSS OF CONTAINMENT  
SUMP RECIRCULATION

---

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

STEP/SEQUENCE/CRITICAL  
5 5 Y

SAT  
UNSAT

---

**ELEMENT:** Locally open RWST boric acid inlet, 1SI-828 (PAB 26' elevation, east of boric acid evaporator condensate demineralizer).

**STANDARD:** 1SI-828 is located and OPENED by turning handwheel in counter-clockwise direction.

**CUE:** 1SI-828 stem is extended.

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL  
6 6 Y

SAT  
UNSAT

---

**ELEMENT:** Locally start holdup tank recirculation pump, P-9.

**STANDARD:** P-9 started by depressing START pushbutton above P-9.

**CUE:** P-9 red light is on, pump is observed to be running.

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL  
7 7 Y

SAT  
UNSAT

---

**ELEMENT:** Establish holdup tank recirculation pump discharge pressure between 45 psig and 50 psig by throttling 1T-4 volume control tank outlet valve (1CV-361A).

**STANDARD:** 1CV-361A throttled with 45-50 psig indicated on PI-192.

**CUE:** 1CV-361A throttled with pressure indicating 47 psig.

**COMMENTS:**

---

MAKEUP TO RWST DURING LOSS OF CONTAINMENT  
SUMP RECIRCULATION

---

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

	STEP/SEQUENCE/CRITICAL	SAT
	8 8 N	UNSAT
<b>ELEMENT:</b>	Inform Shift Manager that makeup to the RWST has commenced.	
<b>STANDARD:</b>	Shift Manager informed.	
<b>CUE:</b>	The Shift Manager acknowledges the report.	
<b>COMMENTS:</b>		

---

TERMINATION CUE: THIS COMPLETES THE JPM.

**COMPLETION TIME:** \_\_\_\_\_

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.017AOT  
Revision 1 DRAFT  
August 23, 2001  
TOTAL REWRITE

3.2.6

PERFORM LOCAL ACTIONS FOR ISOLATING A S/G

K/A REFERENCE: 040.AK3.01 (4.2/4.5)  
(NUREG-1122) 040.AK3.03 (4.5/4.7)  
Gen 2.4.35 (3.3/3.5)

ALTERNATE PATH JPM \_\_\_\_\_ YES X NO

**PERFORMANCE CHECKLIST:**

**SATISFACTORY** - Properly performed critical step(s) and/or in sequence (if applicable)

**UNSATISFACTORY** - Improperly performed critical step(s) and/or out of sequence (if applicable)

X Procedure adequately addresses task elements.

Enter identifier here: EOP-2 Unit 2 "Faulted Steam Generator Isolation"

\_\_\_\_\_ Other document adequately describes necessary task elements.

Enter identifier here: \_\_\_\_\_

X Task elements described as attached.

**DESIRED MODE OF EVALUATION:**

**APPLICABLE EVALUATION SETTING:**

SIMULATE/WALKTHROUGH X DISCUSSION \_\_\_\_\_ PERFORM X IN-PLANT X CONTROL ROOM \_\_\_\_\_

VALIDATED TIME FOR COMPLETION: 10 MINUTES



POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.017AOT  
Revision 1 DRAFT  
August 23, 2001  
TOTAL REWRITE

PERFORM LOCAL ACTIONS FOR ISOLATING A S/G

EXAMINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

START TIME \_\_\_\_\_ FINISH TIME \_\_\_\_\_

PERFORMANCE ☐ SAT ☐ UNSAT

JOB TITLE: ☐ AOT ☐ COT ☐ SRO ☐ STA

TOOLS/EQUIPMENT/REFERENCES:

EOP-2 Unit 2 "Faulted Steam Generator Isolation", Rev 15

TASK STANDARDS:

Locally operated valves for isolating the "A" steam generator are shut.

SIMULATOR INFORMATION:

TIME	FAIL	COMPONENT	OPTION	VALUE	RAMP	DELAY	ACT	COND
None								

**NOTE:** If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.

**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.

PERFORM LOCAL ACTIONS FOR ISOLATING A S/G

**READ AND PROVIDE TO THE EXAMINEE**

\*\*\*\*\*

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMs. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

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

\*\*\*\*\*

**INITIAL CONDITIONS:**

- You are the PAB auxiliary operator.
- Unit 2 has tripped due to a steam leak (faulted steam generator) in containment.
- The crew has identified the steam leak as being from the Unit 2 "A" steam generator.
- The crew is in the process of isolating the Unit 2 "A" steam generator per EOP-2, "Faulted Steam Generator Isolation".

**INITIATING CUES (IF APPLICABLE):**

The Unit 2 control operator has directed you to ensure shut the "A" steam generator MSIV Bypass Valve, 2MS-234, per step 2.b of EOP-2.

A second auxiliary operator has already been directed to ensure shut the "B" steam generator MSIV Bypass Valve, 2MS-236.

PERFORM LOCAL ACTIONS FOR ISOLATING A S/G

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

START TIME	STEP/SEQUENCE/CRITICAL	SAT
	1 1 N	UNSAT

**ELEMENT:** Locally check shut MSIV Bypass Valve, 2MS-234 (85' elevation of the façade).

**STANDARD:** 2MS-234 handwheel rotated in clockwise direction or red lock verified in place and notifies control room that 2MS-234 is shut.

**CUE:** *2MS-234 MSIV Bypass Valve handwheel cannot be rotated in the clockwise direction (if manipulated) OR the red lock is in place. After reporting to control, the report is acknowledged.*

**NOTE:** *If examinee inquires about 2MS-236, the second auxiliary operator has checked this valve shut. If examinee inquires about red locks, the DSS has authorized breaking of all red locks associated with this evolution.*

**COMMENTS:**

STEP/SEQUENCE/CRITICAL	SAT
2 2 N	UNSAT

**ELEMENT:** N/A

**STANDARD:** N/A

**CUE:** *After acknowledging report, inform examinee that steps 7.d and 7.e of EOP-2 also need to be performed for the Unit 2 "A" steam generator. (2MS-235 2P-29 AFP/Radwaste Steam Isolation and 2MS-228 Main Steam Trap Isolation are to be SHUT)*

**COMMENTS:** This step is provided to ensure the evaluator provides the above cue.

STEP/SEQUENCE/CRITICAL	SAT
3 3 Y	UNSAT

**ELEMENT:** Locally shut 2P-29 AFP/Radwaste Steam Isolation valve, 2MS-235 (85' elevation of the façade).

**STANDARD:** Red lock is removed and 2MS-235 rotated in clockwise direction.

**CUE:** 2MS-235, 2P-29 AFP/Radwaste Steam Isolation valve stem is inserted.

**COMMENTS:**

PERFORM LOCAL ACTIONS FOR ISOLATING A S/G

---

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

STEP/SEQUENCE/CRITICAL  
4 3 Y

SAT  
UNSAT

---

**ELEMENT:** Locally shut Main Steam Trap Isolation valve, 2MS-228 (85' elevation of the façade).

**STANDARD:** 2MS-228 rotated in clockwise direction.

**CUE:** 2MS-228, Main Steam Trap Isolation valve stem is inserted.

**COMMENTS:**

---

STEP/SEQUENCE/CRITICAL  
5 4 N

SAT  
UNSAT

---

**ELEMENT:** Control room informed that 2MS-235 and 2MS-228 are shut.

**STANDARD:** Control room contacted and informed that 2MS-235 and 2MS-228 are shut.

**CUE:** Control room acknowledges report that the valves are shut.

**COMMENTS:**

---

**TERMINATION CUE:** THIS COMPLETES THE JPM.

**COMPLETION TIME:** \_\_\_\_\_

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.039aAOT  
Revision 1 DRAFT  
August 24, 2001  
TOTAL REWRITE

B, Z, C

FAST START AN EMERGENCY DIESEL GENERATOR

K/A REFERENCE: 055.EA1.02 (4.3/4.4)  
(NUREG-1122) 055.EA1.06 (4.1/4.5)  
055.EA2.03 (3.9/4.7)

ALTERNATE PATH JPM ☒ YES ☐ NO

PERFORMANCE CHECKLIST:

SATISFACTORY - Properly performed critical step(s) and/or in sequence (if applicable)

UNSATISFACTORY - Improperly performed critical step(s) and/or out of sequence (if applicable)

☒ Procedure adequately addresses task elements.  
Enter identifier here: ECA-0.0 Unit 1 "Loss of All AC Power"

☐ Other document adequately describes necessary task elements.  
Enter identifier here: \_\_\_\_\_

☒ Task elements described as attached.

DESIRED MODE OF EVALUATION:

APPLICABLE EVALUATION SETTING:

SIMULATE/WALKTHROUGH ☒ DISCUSSION ☐ PERFORM ☒ IN-PLANT ☒ CONTROL ROOM ☐

VALIDATED TIME FOR COMPLETION: 15 MINUTES

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.039aAOT  
Revision 1 DRAFT  
August 24, 2001  
TOTAL REWRITE

FAST START AN EMERGENCY DIESEL GENERATOR

EXAMINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

START TIME \_\_\_\_\_ FINISH TIME \_\_\_\_\_

PERFORMANCE ☐ SAT ☐ UNSAT

JOB TITLE: ☐ AOT ☐ COT ☐ SRO ☐ STA

TOOLS/EQUIPMENT/REFERENCES:

ECA-0.0 Unit 1 "Loss of All AC Power", Attachment A, Rev 29

TASK STANDARDS:

Emergency Diesel Generator G-01 started, bus 1A-05 energized.

SIMULATOR INFORMATION:

TIME	FAIL	COMPONENT	OPTION	VALUE	RAMP	DELAY	ACT	COND
None								

**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.

**NOTE:** If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.

**FAST START AN EMERGENCY DIESEL GENERATOR**

**READ AND PROVIDE TO THE EXAMINEE**

\*\*\*\*\*

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EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.

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

\*\*\*\*\*

**INITIAL CONDITIONS:**

A loss of all AC power has occurred on Unit 1.  
Emergency Diesel Generator G-01 failed to auto start and cannot be started from the control room.

**INITIATING CUES (IF APPLICABLE):**

The Shift Manager directs you to perform ECA-0.0 Unit 1, Attachment A "G-01 Local Manual Start" steps A1 through A7.

POINT BEACH NUCLEAR PLANT  
TRAINING JOB PERFORMANCE MEASURES

JPM P000.039aAOT  
Revision 1 DRAFT  
August 24, 2001  
TOTAL REWRITE

FAST START AN EMERGENCY DIESEL GENERATOR

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

START TIME	STEP/SEQUENCE/CRITICAL			SAT
	1	1	N	UNSAT

---

**ELEMENT:** Check green "Power On" light energized (Panel C-64A and Panel C-34).

**STANDARD:** Checks green "Power On" light energized at C-64A and C-34.

**CUE:** The green "Power On" light is illuminated at both panels.

**COMMENTS:**

---

	STEP/SEQUENCE/CRITICAL			SAT
	2	1	N	UNSAT

---

**ELEMENT:** Check no overspeed trip alarms (Panel C-64A and Panel C-34).

**STANDARD:** Overspeed trip alarms verified clear at panel C-64A and C-34.

**CUE:** The overspeed trip alarm is clear at both panels.

**COMMENTS:**

---

	STEP/SEQUENCE/CRITICAL			SAT
	3	2	Y	UNSAT

---

**ELEMENT:** Place local/remote transfer switches to local at C-34A (transfer switch No. 1 and No. 2).

**STANDARD:** Transfer switch No. 1 and No. 2 placed to local position at C-34A.

**CUE:** The local/remote transfer switches are in local.

**COMMENTS:**



FAST START AN EMERGENCY DIESEL GENERATOR

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

STEP/SEQUENCE/CRITICAL			SAT
4	3	Y	UNSAT
<b>ELEMENT:</b> Start G-01 by depressing "EMERGENCY START" push-button at C-34A.			
<b>STANDARD:</b> EMERGENCY START push button is depressed at C-34A.			
<b>CUE:</b> After the EMERGENCY START push-button is depressed, there are no indications that the diesel started..			
<b>NOTE:</b> <i>This begins the Alternate Path portion of this JPM.</i>			
<b>COMMENTS:</b>			

STEP/SEQUENCE/CRITICAL			SAT
5	4	Y	UNSAT
<b>ELEMENT:</b> Place mode selector switch in "LOCAL START" at C-64.			
<b>STANDARD:</b> Selector switch in "LOCAL START" at C-64.			
<b>CUE:</b> The selector switch is in "LOCAL START" at C-64.			
<b>COMMENTS:</b>			

STEP/SEQUENCE/CRITICAL			SAT
6	5	Y	UNSAT
<b>ELEMENT:</b> Depress and hold "ENGINE START" push-button at C-64 until engine speed rises to idle.			
<b>STANDARD:</b> ENGINE START push-button depressed and held, till engine is at idle speed.			
<b>CUE:</b> After the ENGINE START push-button is depressed, you hear the engine start and note approximately 400 rpm on G-01 engine tachometer.			
<b>COMMENTS:</b>			

FAST START AN EMERGENCY DIESEL GENERATOR

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

---

	STEP/SEQUENCE/CRITICAL		SAT	
	7	6	Y	UNSAT
<b>ELEMENT:</b>	Depress the idle release push-button at C-64 to raise engine speed to 900 rpm.			
<b>STANDARD:</b>	Idle release push-button depressed, engine speed checked rising to 900 rpm.			
<b>CUE:</b>	After the idle release push-button has been depressed, the engine tachometer is rising toward 900 rpm.			
<b>COMMENTS:</b>				

---

	STEP/SEQUENCE/CRITICAL		SAT	
	8	7	N	UNSAT
<b>ELEMENT:</b>	Check diesel speed $\geq 900$ rpm at C-64.			
<b>STANDARD:</b>	Diesel speed checked.			
<b>CUE:</b>	Diesel speed is slightly $> 900$ rpm.			
<b>COMMENTS:</b>				

---

	STEP/SEQUENCE/CRITICAL		SAT	
	9	8	N	UNSAT
<b>ELEMENT:</b>	Contact control room to check G-01 frequency between 59.5 Hz and 60.5 Hz.			
<b>STANDARD:</b>	Control room contacted to check G-01 frequency between 59.5 Hz and 60.0 Hz.			
<b>CUE:</b>	The control room reports that G-01 frequency is 60 Hz.			
<b>COMMENTS:</b>				

---

FAST START AN EMERGENCY DIESEL GENERATOR

PERFORMANCE INFORMATION

**NOTE:** *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

STEP/SEQUENCE/CRITICAL			SAT
10	9	N	UNSAT
<b>ELEMENT:</b> Contact control room to check G-01 voltage between 4050 Vac and 4300 Vac.			
<b>STANDARD:</b> Control room is contacted to check G-01 voltage.			
<b>CUE:</b> The control room reports diesel voltage is 4160 Vac.			
<b>COMMENTS:</b>			

TERMINATION CUE: THIS COMPLETES THE JPM.

**COMPLETION TIME:** \_\_\_\_\_