OPERATOR:	
RO SRO _	DATE:
JPM NUMBER:	a
TASK NUMBER:	U-068-AB-01
TASK TITLE:	Recirc Pump Recovery with Manual Scram
K/A NUMBER: 2020	01 A2.04 K/A RATING: RO 3.7 SRO 3.8
TASK STANDARD:	Recover tripped Recirc Pump at power and insert a manual Reactor Scram when the operating Recirc Pump trips
LOCATION OF PER	FORMANCE: Simulator
REFERENCES/PROC	CEDURES NEEDED: 2-OI-68, 2-AOI-68-1A, 2-AOI-100-1
VALIDATION TIME	: 15 minutes
MAX. TIME ALLOW	ED: (Completed for Time Critical JPMs only)
PERFORMANCE TI	ME:
Additional comment s	heets attached? YES NO
RESULTS: SATIS	FACTORY UNSATISFACTORY
	DATE:

106/2/11

INITIAL CONDITIONS: You are a Unit Operator. 2A Recirc Pump has tripped. All actions of 2-AOI-68-1A, Recirc Pump Trip/Core Flow Decrease OPRMs Operable, have been completed. The problem with 2A Recirc Pump has been corrected and all requirements of Tech Spec LCO 3.4.1 are satisfied for Single Loop Operations. The SRO has directed 2A Recirc Pump be restarted. The Reactor Engineer is in the control room. All prerequisites have been met and 2-SR-3.4.9.3 & 4 has been successfully completed. The startup procedure has been completed through step 5.3[9.1] of 2-OI-68, Reactor Recirculation System.

INITIATING CUES: The US directs you to continue the return of 2A Recirc Pump to service as directed by 2-OI-68, Reactor Recirculation System, starting at Step 5.3[10] and balance jet pump_flows

IN-SIMULATOR: I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

INITIAL CONDITIONS: You are a Unit Operator. 2A Recirc Pump has tripped. All actions of 2-AOI-68-1A, Recirc Pump Trip/Core Flow Decrease OPRMs Operable, have been completed. The problem with 2A Recirc Pump has been corrected and all requirements of Tech Spec LCO 3.4.1 are satisfied for Single Loop Operations. The SRO has directed 2A Recirc Pump be restarted. The Reactor Engineer is in the control room. All prerequisites have been met and 2-SR-3.4.9.3 & 4 has been successfully completed. The startup procedure has been completed through step 5.3[9.1] of 2-OI-68, Reactor Recirculation System.

INITIATING CUES: The US directs you to continue the return of 2A Recirc Pump to service as directed by 2-OI-68, Reactor Recirculation System, starting at Step 5.3[10] and balance jet pump flows

START TIME	
*****************	***********
Performance Step 1:	Critical _ Not Critical X
[10] CHECK RECIRC LOOP A DIFF PRESS LOW Window 31 in ALARM.	annunciation, 2-XA-55-4A,
NOTE All faults and alarms should be reset prior to closing a Recirc Potthe DRIVE READY light is obtained thus preventing the loop for start limitations of the recirc pump to possibly be exceeded thus	rom cooling down causing the
Standard:	
Operator verifies 2-XA-55-4A, window 31 is in Alarm	
SATUNSAT N/ACOMMENTS:	
*****************	**********
Performance Step 2:	Critical _ Not Critical X
[11] DEPRESS FAULT RESET, 2-HS-96-13, THE are reset on ICS Screen VFDAAL.	N VERIFY all Faults or Alarms
[11.1] IF all faults and alarms are clear, THEN at Step 5.3[12]	CONTINUE recirc pump startup
Standard:	
Operator depresses FAULT RESET and verifies all Faults Screen VFDAAL. Operator proceeds to step 5.3[12]	s and Alarms are reset on ICS
SATUNSAT N/ACOMMENTS:	

JPM a PAGE 5 OF 10

Performance Step 3:

Critical X Not Critical

CAUTION

The closure circuit for RECIRC PUMP 2A(2B) DISCHARGE VALVE, 2-HS-68-3A(79A) is a seal-in and is **NOT** to be held in the CLOSE position unless specifically directed. If the handswitch is held to the close position (\approx 2.5 seconds) after the valve has reached its full close valve position this will allow the reclosure circuit to engage. This reclosure causes the motor to re-engage at a rapid rate (\approx 10 times a second), which can cause the motor to heat and also to exceed the recommended valve seat loading.

[12] **VERIFY CLOSED**, RECIRC PUMP 2A DISCHARGE VALVE, 2-FCV-68-3

CAUTION

Recirc System operation is restricted by criteria in Unit 2 Power to Flow Map (ICS or Station Reactor Engineering, 0-TI-248) and Illustration 1.

NOTES

- 1) The DRIVE READY light will only light after the FAULT RESET pushbutton is depressed, if all the active faults are reset. ICS screen VFDAAL(VFDBAL) can be referred to verify the Number of Active Faults is zero after depressing the fault reset pushbuttons. Any faults listed after the FAULT RESET pushbutton has been depressed, are keeping the drive from being ready to run.
- 2) Capacitor bank fuses are subject to clearing when the unit boards are being supplied from the 161 source and large pumps are started. Unit Supervisors are to evaluate the need to place the Capacitor Banks in Manual prior to starting a recirc pump from the Alternate feeder. The evaluation should consider placing a Caution order on the recirc pump's start switches stating, "evaluate the need to place CAP Banks in Manual prior to starting Pumps from the ALTERNATE FEED."
- 3) The actions which occur after the START pushbutton is depressed are listed on the next page.
- 4) When depressing the switches which control the recirc drives, these switches must be firmly depressed to ensure all the contacts are made-up.

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	Operator clo	ses 2-FC	CV-68-3		
SAT	_UNSAT	_N/A	_COMMENTS:	 	

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PAGE	6	OF	10

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Performance	Step 4:	Critical_ Not Critical X
[13]		mplete alarm is received and the recirc THEN : (N/A if alarm is not received)
Standard:		
Opera	ator N/As this step and proceeds to ste	p [14]
SAT UNS	SATN/ACOMMENTS:	

remonnance	Step 5:	Critical_Not Critical X
remormance	Step 5: NOT	
1) Tech Spec	NOT	ES to starting a Recirc pump in Step 5.3[14].
1) Tech Spec applicabil	NOT LCO 3.4.1 should be reviewed prior	to starting a Recirc pump in Step 5.3[14].
 Tech Specapplicabil Step 5.3[1 Step 5.3[1 	NOT LCO 3.4.1 should be reviewed prior ity for the Tech Spec is Modes 1 & 2 4] is used to start Recirc Pump 2A un	ES to starting a Recirc pump in Step 5.3[14]. Inder normal conditions. A during cold shutdown (Mode 4) when it
 Tech Spec applicabil Step 5.3[1 Step 5.3[1 	NOT LCO 3.4.1 should be reviewed prior ity for the Tech Spec is Modes 1 & 2 4] is used to start Recirc Pump 2A uses 5] can be used to start Recirc Pump 2 start the pump and open the discharge	to starting a Recirc pump in Step 5.3[14]. Inder normal conditions. A during cold shutdown (Mode 4) when it is valve without the jogging circuit.
applicabil 2) Step 5.3[1 3) Step 5.3[1 desired to	NOT LCO 3.4.1 should be reviewed prior ity for the Tech Spec is Modes 1 & 2 4] is used to start Recirc Pump 2A uses 5] can be used to start Recirc Pump 2 start the pump and open the discharge	to starting a Recirc pump in Step 5.3[14]. Inder normal conditions. A during cold shutdown (Mode 4) when it be valve without the jogging circuit. N PERFORM the following (Otherwise N
 Tech Spec applicabil Step 5.3[1 Step 5.3[1 desired to 	NOT LCO 3.4.1 should be reviewed prior ity for the Tech Spec is Modes 1 & 2 4] is used to start Recirc Pump 2A up 5] can be used to start Recirc Pump 2 start the pump and open the discharg IF starting Recirc Pump 2A, THE	to starting a Recirc pump in Step 5.3[14]. Inder normal conditions. A during cold shutdown (Mode 4) when it be valve without the jogging circuit. N PERFORM the following (Otherwise N
1) Tech Spec applicabil 2) Step 5.3[1 3) Step 5.3[1 desired to [14] Standard:	NOT LCO 3.4.1 should be reviewed prior ity for the Tech Spec is Modes 1 & 2 4] is used to start Recirc Pump 2A up 5] can be used to start Recirc Pump 2 start the pump and open the discharg IF starting Recirc Pump 2A, THE	to starting a Recirc pump in Step 5.3[14]. Inder normal conditions. A during cold shutdown (Mode 4) when it be valve without the jogging circuit. N PERFORM the following (Otherwise N

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**************************************		**************************************
[14.2] DEPRESS FAULT RESET, 2-HS-96-13		
Standard:		
Operator depresses fault reset pushbutton, 2-HS-96-13		
SATUNSAT N/ACOMMENTS:		
**************************************		**************************************
[14.3] CHECK DRIVE READY, 2-IL-96-37 is LIT.		
Standard:		
Operator checks drive ready light, 2-IL-96-37, is lit		
SATUNSAT N/ACOMMENTS:		
**************************************		**************************************
[14.4] FIRMLY DEPRESS DRIVE START, 2-HS-96	6-11.	
Standard:		
Operator depresses drive start pushbutton, 2-HS-96-11		
SAT UNSAT N/ACOMMENTS:		
NOTE: Simulator driver: When Recirc Pump 2A trips due to inc then insert 2B Recirc Pump Trip th03b	comple	te start sequence

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								JPM PAGE	OF	10		

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Performance Step 9:	Critical X Not Critical
2-AOI-68-1A Recirc Pump Trip/Core Flow Decrea	se OPRMs Operable
4.2 Subsequent Actions	
[1] <b>IF</b> both Recirc Pumps are tripped in n	nodes 1 or 2, <b>THEN</b> (Otherwise N/A),
[1.1] <b>SCRAM</b> the Reactor.	
Standard:	
Operator recognizes trip of 2B Recirc Pump ar 2-AOI-68-1A section 4.2 step [1.1]. Operator presented Reactor Scram	
SAT UNSAT N/ACOMMENTS:	
****************	************
**************************************	**************************************
Performance Step 10:	
Performance Step 10:  2-AOI-100-1 Reactor Scram	Critical X Not Critical
Performance Step 10:  2-AOI-100-1 Reactor Scram  4.1 Immediate Actions  [1] DEPRESS REACTOR SCRAM A ar	Critical X Not Critical
Performance Step 10:  2-AOI-100-1 Reactor Scram  4.1 Immediate Actions  [1] DEPRESS REACTOR SCRAM A ar 2-HS-99-5A/S3B, on Panel 2-9-5.	Critical X Not Critical  ad B, 2-HS-99-5A/S3A and
Performance Step 10:  2-AOI-100-1 Reactor Scram  4.1 Immediate Actions  [1] DEPRESS REACTOR SCRAM A ar 2-HS-99-5A/S3B, on Panel 2-9-5.  Standard:	Critical X Not Critical  ad B, 2-HS-99-5A/S3A and  shbuttons on Panel 2-9-5
Performance Step 10:  2-AOI-100-1 Reactor Scram  4.1 Immediate Actions  [1] DEPRESS REACTOR SCRAM A ar 2-HS-99-5A/S3B, on Panel 2-9-5.  Standard:  Operator depresses Reactor Scram A and B put	Critical X Not Critical  ad B, 2-HS-99-5A/S3A and  shbuttons on Panel 2-9-5

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Perfor	mance S	Step 11:	Critical_ Not Critical X
	[2]		am is due to a loss of RPS, <b>THEN PAUSE</b> in START & HOT STBY mode proximately 5 seconds before going to REFUEL. (Otherwise N/A)
Standa	ard:		
	Operat	tor does	not perform this step, Scram is not due to loss of RPS.
SAT_	_UNSA	AT1	N/ACOMMENTS:
	****** mance S		**************************************
	[3]	REFU	EL MODE ONE ROD PERMISSIVE light check:
		[3.1]	PLACE REACTOR MODE SWITCH, 2-HS-99-5A-S1, in REFUEL.
		[3.2]	<b>CHECK</b> REFUEL MODE ONE ROD PERMISSIVE light, 2-XI-85-46, illuminates.
		[3.3]	<b>IF</b> REFUEL MODE ONE ROD PERMISSIVE light, 2-XI-85-46, is not illuminated, <b>THEN CHECK</b> all control rod positions at Full-In Overtravel, or Full-In.
Standa	<u>ırd:</u>		
	_	_	es Reactor Mode Switch in Refuel and observes Refuel Mode One Rod ght Illuminated
SAT_	_ UNSA	1T	N/ACOMMENTS:

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Performance Step 13:			Critical X Not Critical
	[4]	PLACE REACTOR MODE SWI position.	TCH, 2-HS-99-5A-S1, in SHUTDOWN
Standa	<u>rd:</u>		
	Opera	tor places Reactor Mode Switch in S	hutdown position
SAT_	_UNS	ATN/ACOMMENTS:	
CUE:	After	SCRAM report another operator wil	continue in 2-AOI-100-1

END OF TASK

STOP TIME ___

OPERATOR:	
RO SRO _	DATE:
JPM NUMBER:	a
TASK NUMBER:	U-068-AB-01
TASK TITLE:	Recirc Pump Recovery with Manual Scram
K/A NUMBER: 2020	01 A2.04 K/A RATING: RO 3.7 SRO 3.8
TASK STANDARD:	Recover tripped Recirc Pump at power and insert a manual Reactor Scram when the operating Recirc Pump trips
LOCATION OF PERI	FORMANCE: Simulator
REFERENCES/PROC	CEDURES NEEDED: 3-OI-68, 3-AOI-68-1A, 3-AOI-100-1
VALIDATION TIME	: 15 minutes
MAX. TIME ALLOW	ED: (Completed for Time Critical JPMs only)
PERFORMANCE TI	ME:
COMMENTS:	
Additional comment s	heets attached? YES NO
RESULTS: SATIS	FACTORY UNSATISFACTORY
SIGNATURE:	EXAMINER DATE:

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**INITIAL CONDITIONS:** You are a Unit Operator. 3A Recirc Pump has tripped. All actions of 3-AOI-68-1A, Recirc Pump Trip/Core Flow Decrease OPRMs Operable, have been completed. The problem with 3A Recirc Pump has been corrected and all requirements of Tech Spec LCO 3.4.1 are satisfied for Single Loop Operations. The SRO has directed 3A Recirc Pump be restarted. The Reactor Engineer is in the control room. All prerequisites have been met and 3-SR-3.4.9.3 & 4 has been successfully completed. The startup procedure has been completed through step 5.3[9.1] of 3-OI-68, Reactor Recirculation System.

**INITIATING CUES**: The US directs you to continue the return of 3A Recirc Pump to service as directed by 3-OI-68, Reactor Recirculation System, starting at Step 5.3[10] and balance jet pump flows

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

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**INITIAL CONDITIONS**: You are a Unit Operator. 3A Recirc Pump has tripped. All actions of 3-AOI-68-1A, Recirc Pump Trip/Core Flow Decrease OPRMs Operable, have been completed. The problem with 3A Recirc Pump has been corrected and all requirements of Tech Spec LCO 3.4.1 are satisfied for Single Loop Operations. The SRO has directed 3A Recirc Pump be restarted. The Reactor Engineer is in the control room. All prerequisites have been met and 3-SR-3.4.9.3 & 4 has been successfully completed. The startup procedure has been completed through step 5.3[9.1] of 3-OI-68, Reactor Recirculation System.

**INITIATING CUES**: The US directs you to continue the return of 3A Recirc Pump to service as directed by 3-OI-68, Reactor Recirculation System, starting at Step 5.3[10] and balance jet pump flows

START TIME	
****************	*************
Performance Step 1:	Critical _ Not Critical X
[10] VERIFY RECIRC LOOP A DIFF I window 31 in ALARM.	PRESS LOW annunciation, 3-XA-55-4A,
All faults and alarms should be reset prior to closin the DRIVE READY light is obtained thus prevention start limitations of the recirc pump to possibly be expected.	g a Recirc Pump Discharge Valve to ensure ng the loop from cooling down causing the
Standard:  Operator verifies 3-XA-55-4A, window 31 is	s in Alarm
SAT UNSAT N/ACOMMENTS:	
***************	********
Performance Step 2:	Critical _ Not Critical X
[11] <b>DEPRESS</b> FAULT RESET, 3-HS-9 are reset on ICS Screen VFDAAL.	96-13, <b>THEN VERIFY</b> all Faults or Alarms
[11.1] <b>IF</b> all faults and alarms are c at Step 5.3[12]	lear, THEN CONTINUE recirc pump startup
Standard:	
Operator depresses FAULT RESET and veri Screen VFDAAL. Operator proceeds to step	
SATUNSATN/ACOMMENTS:	

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Performance Step 3:

Critical X Not Critical

## **CAUTION**

The closure circuit for RECIRC PUMP 3A(3B) DISCHARGE VALVE, 3-HS-68-3A(79A) is a seal-in and is **NOT** to be held in the CLOSE position unless specifically directed. If the handswitch is held to the close position (approx. 2.5 seconds) after the valve has reached its full close valve position this will allow the reclosure circuit to engage. This reclosure causes the motor to re-engage at a rapid rate (approx. 10 times a second), which can cause the motor to heat and also to exceed the recommended valve seat loading.

[12] **VERIFY CLOSED**, RECIRC PUMP 3A DISCHARGE VALVE, 3-FCV-68-3

## **CAUTION**

Recirc System operation is restricted by criteria in Unit 3 Power to Flow Map (ICS or Station Reactor Engineering, 0-TI-248) and Illustration 1.

### **NOTES**

- 1) The DRIVE READY light will only light after the FAULT RESET push button is depressed, if all the active faults are reset. ICS screen VFDAAL(VFDBAL) can be referred to verify the Number of Active Faults is zero after depressing the fault reset push buttons. Any faults listed after the FAULT RESET push button has been depressed, are keeping the drive from being ready to run.
- 2) Capacitor bank fuses are subject to clearing when the unit boards are being supplied from the 161 source and large pumps are started. Unit Supervisors are to evaluate the need to place the Capacitor Banks in Manual prior to starting a Recirc pump from the Alternate feeder. The evaluation should consider placing a Caution order on the Recirc pump's start switches stating, "evaluate the need to place CAP Banks in Manual prior to starting Pumps from the ALTERNATE FEED."
- 3) The actions which occur after the START push-button is depressed are listed on the next page.
- 4) When depressing the switches which control the Recirc Drives these switches are to be firmly depressed to ensure all the contacts are made-up.

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	Operator closes 3-FCV-68-3						
SAT_	_UNSAT	_ N/A _	COMMENTS:				

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Performance	Step 4:	Critical_Not Critical X	
[13]		omplete alarm is received and the recirc <b>THEN</b> : (N/A if alarm is not received)	
Standard:			
Opera	tor N/As this step and proceeds to ste	ep [14]	
SATUNSAT N/ACOMMENTS:			
********* Performance		**************************************	
	NO	rrs	
1) Tech Spec The applicabi	NOT LCO 3.4.1 should be reviewed prior lity for the Tech Spec is Modes 1 &	r to starting Recirc Pump 3A in Step 5.3[14]	
The applicabi	LCO 3.4.1 should be reviewed prior	r to starting Recirc Pump 3A in Step 5.3[14] 2.	
The applicabi 2) Step 5.3[14 3) Step 5.3[1:	LCO 3.4.1 should be reviewed prior lity for the Tech Spec is Modes 1 & 4] is used to start Recirc Pump 3A u	r to starting Recirc Pump 3A in Step 5.3[14] 22.  nder normal conditions.  3A during cold shutdown (Mode 4) when it is	
The applicabi 2) Step 5.3[14 3) Step 5.3[1:	LCO 3.4.1 should be reviewed prior lity for the Tech Spec is Modes 1 & 4] is used to start Recirc Pump 3A used to start Recirc Pump in the pump and open the discharge start Recirc Pump and open start Recirc Pu	r to starting Recirc Pump 3A in Step 5.3[14] 2.  nder normal conditions.  3A during cold shutdown (Mode 4) when it is valve without the jogging circuit.	
The applicabing the applicabing the step 5.3[14]  3) Step 5.3[14]  3) desired to starting the starting the applicabing the starting the	LCO 3.4.1 should be reviewed prior lity for the Tech Spec is Modes 1 & 4] is used to start Recirc Pump 3A used to start Recirc Pump in the pump and open the discharge start Recirc Pump and open start Recirc Pu	r to starting Recirc Pump 3A in Step 5.3[14] 2.  nder normal conditions.  3A during cold shutdown (Mode 4) when it is valve without the jogging circuit.  N PERFORM the following (Otherwise N/A)	
The applicabing the applicabing the step 5.3[14]  3) Step 5.3[14]  3) desired to starting the starting the applicabing the starting the	LCO 3.4.1 should be reviewed prior lity for the Tech Spec is Modes 1 & 4] is used to start Recirc Pump 3A used to start Recirc Pump in the pump and open the discharge of the discharge of the pump and open the discharge of the pump and open the discharge of the pump and open the discharge of	r to starting Recirc Pump 3A in Step 5.3[14] 2.  nder normal conditions.  3A during cold shutdown (Mode 4) when it is valve without the jogging circuit.  N PERFORM the following (Otherwise N/A)	
The applicable  2) Step 5.3[14]  3) Step 5.3[14]  desired to state  [14]  Standard:	LCO 3.4.1 should be reviewed prior lity for the Tech Spec is Modes 1 & 4] is used to start Recirc Pump 3A used to start Recirc Pump in the pump and open the discharge of the discharge of the pump and open the discharge of the pump and open the discharge of the pump and open the discharge of	r to starting Recirc Pump 3A in Step 5.3[14] 2. nder normal conditions. 3A during cold shutdown (Mode 4) when it is valve without the jogging circuit.  N PERFORM the following (Otherwise N/A)	

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**************************************	**************************************
[14.2] <b>DEPRESS</b> FAULT RESET, 3-HS-96-13	
Standard:	
Operator depresses fault reset pushbutton, 3-HS-96-13	
SAT UNSAT N/ACOMMENTS:	
**************************************	**************************************
[14.3] <b>CHECK</b> DRIVE READY, 3-IL-96-37 is LI	IT.
Standard:	
Operator checks drive ready light, 3-IL-96-37, is lit	
SAT UNSAT N/ACOMMENTS:	
**************************************	**************************************
[14.4] <b>FIRMLY DEPRESS</b> DRIVE START, 3-H	(S-96-11.
Standard:	
Operator depresses drive start pushbutton, 3-HS-96-11	
SATUNSAT N/ACOMMENTS:	
NOTE: Simulator driver: When Recirc Pump 3A trips due to then insert 3B Recirc Pump Trip <b>th03b</b>	o incomplete start sequence

JPM	а		
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Performance Step 9: Critical X Not Critical  3-AOI-68-1A Recirc Pump Trip/Core Flow Decrease OPRMs Operable					
3-AOI-68-1A Recirc Pump Trip/Core Flow Decrease OPRMs Operable					
3-AOI-68-1A Recirc Pump Trip/Core Flow Decrease OPRMs Operable					
4.2 Subsequent Actions					
[1] <b>IF</b> both Recirc Pumps are tripped in modes 1 or 2, <b>THEN</b> (Otherwise N/A),					
[1.1] <b>SCRAM</b> the Reactor.					
Standard:					
Operator recognizes trip of 3B Recirc Pump and inserts a manual reactor scram based of 3-AOI-68-1A section 4.2 step [1.1]. Operator performs immediate actions of 3-AOI-10 Reactor Scram					
SAT UNSAT N/ACOMMENTS:					
***********************************	***				
Parformance Stan 10:					
Performance Step 10: Critical $\underline{X}$ Not Critical					
3-AOI-100-1 Reactor Scram					
_ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~					
3-AOI-100-1 Reactor Scram					
3-AOI-100-1 Reactor Scram  4.1 Immediate Actions  [1] DEPRESS REACTOR SCRAM A and B, 3-HS-99-5A/S3A and					
3-AOI-100-1 Reactor Scram  4.1 Immediate Actions  [1] DEPRESS REACTOR SCRAM A and B, 3-HS-99-5A/S3A and 3-HS-99-5A/S3B, on Panel 3-9-5.					
3-AOI-100-1 Reactor Scram  4.1 Immediate Actions  [1] DEPRESS REACTOR SCRAM A and B, 3-HS-99-5A/S3A and 3-HS-99-5A/S3B, on Panel 3-9-5.  Standard:					
3-AOI-100-1 Reactor Scram  4.1 Immediate Actions  [1] DEPRESS REACTOR SCRAM A and B, 3-HS-99-5A/S3A and 3-HS-99-5A/S3B, on Panel 3-9-5.  Standard:  Operator depresses Reactor Scram A and B pushbuttons on Panel 3-9-5					

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PAGE	9	OF	1 (	ገ

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			am is due to a loss of RPS, <b>THEN PAUSE</b> in STA proximately 5 seconds before going to REFUEL. (		
Standa	ard:				
	Operat	tor does	not perform this step, Scram is not due to loss of R	PS.	
SAT_	_ UNSA	AT1	N/ACOMMENTS:		
	****** mance S		**************************************	**************************************	
	[3]	REFU	EL MODE ONE ROD PERMISSIVE light check:		
		[3.1]	PLACE REACTOR MODE SWITCH, 3-HS-99	-5A-S1, in REFUEL.	
		[3.2]	CHECK REFUEL MODE ONE ROD PERMISSIBLE Illuminates.	SIVE light, 3-XI-85-46,	
		[3.3]	IF REFUEL MODE ONE ROD PERMISSIVE Is illuminated, THEN CHECK all control rod positions of the control of the co	•	
Standa	ırd:				
		_	es Reactor Mode Switch in Refuel and observes Ref ght Illuminated	fuel Mode One Rod	
SAT_	_ UNSA	1T	N/ACOMMENTS:		

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Perform	nance S	<u>tep 13:</u>	Critical X Not Critical
,	[4]	PLACE REACTOR MODE SWITCH, 3-HS-99-5A position.	A-S1, in SHUTDOWN
Standa	rd:		
	Operat	or places Reactor Mode Switch in Shutdown position	
SAT	_UNSA	ATN/ACOMMENTS:	
CUE:	After S	CRAM report another operator will continue in 3-AO	I-100-1

END OF TASK

STOP TIME ___

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OPERATOR:	
RO SRO _	DATE:
JPM NUMBER:	b
TASK NUMBER:	U-000-EM-28
TASK TITLE:	2-EOI Appendix-4 Injection Prevention
K/A NUMBER:	295031 EA1.12 K/A RATING: RO 3.9 SRO 4.1
TASK STANDARD:	Prevent Injection per 2-EOI Appendix-4, and then maintain level minus 50 to minus 100 inches using 2-EOI-Appendix-5A
LOCATION OF PER	FORMANCE: Simulator
REFERENCES/PROC	CEDURES NEEDED: 2-EOI Appendix-4, 2-EOI-Appendix-5A
VALIDATION TIME	: 15 minutes
MAX. TIME ALLOW	ED: (Completed for Time Critical JPMs only)
PERFORMANCE TI	ME:
COMMENTS:	
Additional comment s	heets attached? YES NO
RESULTS: SATIS	FACTORY UNSATISFACTORY
SIGNATURE:	DATE: EXAMINER

May 1/1

**INITIAL CONDITIONS**: You are a Unit Operator. An ATWS is in progress. Plant conditions are as found.

**INITIATING CUE**: The Unit Supervisor directs you to stop and prevent all injection into the RPV except RCIC, CRD and SLC in accordance with 2-EOI Appendix-4, Prevention of Injection, once level has lowered to minus 50 inches, maintain level minus 50 to minus 100 inches using 2-EOI-Appendix-5A.

*************************************

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

**INITIAL CONDITIONS**: You are a Unit Operator. An ATWS is in progress. Plant conditions are as found.

**INITIATING CUE**: The Unit Supervisor directs you to stop and prevent all injection into the RPV except RCIC, CRD and SLC in accordance with 2-EOI Appendix-4, Prevention of Injection, once level has lowered to minus 50 inches, maintain level minus 50 to minus 100 inches using 2-EOI-Appendix-5A.

JPM b PAGE 4 OF 11

					JPM PAGE	b 5	OF	11
****	*****	*****	*******	******	*****	***	****	***
Performance Step 3:				Critical _ Not Critical X				
	ving receipt of ε		NOTE SPRAY automatic initiation	on signal, it is NOT	neces	sar	y to	wait
3.	PREVENT in	ijection f	rom CORE SPRAY follow	•	ignal b	y P	PLA(	CING
Standa	ard:							
	No initiation si STOP.	ignal exis	sts and <u>DOES NOT</u> place (	Core Spray pump co	ontrol s	swit	tches	in
SAT	UNSAT	N/A	COMMENTS:					

JPM	b		
PAGE	6	OF	11

	PAGE 6 OF 11
*************	************
Performance Step 4:	Critical _ Not Critical X
4. <b>PREVENT</b> injection from LPCI SYSTEM I b	y performing the following:
NOTE	
Injection may be prevented by performing EITHER sto	en 4.a or sten 4.b.
	-p or step
a. Following automatic pump start, <b>PLAC</b> switches in STOP.	CE RHR SYSTEM I pump control
OR	
b. BEFORE RPV pressure drops below 4:	50 psig,
BYPASS.	SYS I OUTBD INJ VLV BYPASS SEL in
2) <b>VERIFY CLOSED</b> 2-FCV-74-VALVE.	-52, RHR SYS I LPCI OUTBD INJECT
Standard:	
Closes 2-FCV-74-52 before RPV pressure drops	s below 450 psig
SAT UNSAT N/A COMMENTS:	
WATER THE RESIDENCE OF THE FEBRUARY AND ADMINISTRATION OF THE SECOND OF	

JPM	b			
PAGE	7	OF	11	

*******	*****	**********************
Performance	Step 5:	Critical _ Not Critical X
5. PRE	VENT	injection from LPCI SYSTEM II by performing the following:
	······································	NOTE
Injection ma	y be pre	evented by performing EITHER step 5.a or step 5.b.
a.		owing automatic pump start, PLACE RHR SYSTEM II pump control thes in STOP.
b.	BEF	OR ORE RPV pressure drops below 450 psig,
	1)	PLACE 2-HS-74-155B, LPCI SYS II OUTBD INJ VLV BYPASS SEL in BYPASS.
		· AND
	2)	<b>VERIFY CLOSED</b> 2-FCV-74-66, RHR SYS II LPCI OUTBD INJECT VALVE.
Standard:		
Close	es 2-FC	V-74-66 before RPV pressure drops below 450 psig
SAT UN	SAT _	N/A COMMENTS:

JPM b PAGE 8 OF 11

*******************************

## Performance Step 6:

Critical _ Not Critical X

- 6. **PREVENT** injection from CONDENSATE and FEEDWATER by performing the following:
  - a. IF Immediate injection termination from a reactor feedwater pump is required, THEN **PERFORM** step 6.d for the desired pump.
  - b. **LOWER** RFPT 2C speed to minimum setting (approximately 600 rpm) using ANY of the following methods on Panel 2-9-5:
    - Using 2-LIC-46-5, REACTOR WATER LEVEL CONTROL, in MANUAL AND individual 2-SIC-46-10, RFPT 2C SPEED CONTROL in AUTO,

OR

 Using individual 2-SIC-46-10, RFPT 2C SPEED CONTROL in MANUAL,

OR

• Using individual 2-HS-46-10A, RFPT 2C SPEED CONT RAISE/LOWER switch in MANUAL GOVERNOR.

## Standard:

Attempts to lower 2C RFPT speed, cannot be lowered due to a controller failure
SAT UNSAT N/A COMMENTS:

JPM	b		
PAGE	9	OF	11

******************************	**
--------------------------------	----

# Performance Step 7:

Critical Not Critical X

- c. **CLOSE** the following valves BEFORE RPV pressure drops below 500 psig:
  - 2-FCV-3-19, RFP 2A DISCHARGE VALVE
  - 2-FCV-3-12, RFP 2B DISCHARGE VALVE
  - 2-FCV-3-5, RFP 2C DISCHARGE VALVE
  - 2-LCV-3-53, RFW START-UP LEVEL CONTROL

## Standard:

	Detern dischar		-	pressure will remain above 500 psig and <u>DOES NOT</u> close RFP			
SAT _	UNS	SAT	_ N/A	COMMENTS:			
****	*****	*****	*****	******************	*		
Perfor	mance S	Step 8:		Critical X Not Critical			
	d.		RFPTs :	as necessary to prevent injection by <b>DEPRESSING</b> the following	ng		
		• 2-H	S-3-176 <i>A</i>	A, RFPT 2C TRIP.			
Standa	ard:						
	Trips I	RFPT 2	.C				
SAT _	UNS	SAT _	_ N/A	_ COMMENTS:	-		

JPM b PAGE 10 OF 11

Performance Step 9:	Critical $X$ Not Critical		
Lower level to less than -50 inches, then recommence inject EOI-Appendix-5A to maintain level band of -50 to -100 inches.			
Standard:			
Lowers level to minus 50 inches then performs 2-EOI-Appe	ndix-5A to maintain level band		
SAT UNSAT N/A COMMENTS:			
NOTE: Applicant must control level in designated level	l band		
******************	***		
Performance Step 10:	Critical _ Not Critical X		
1. IF it is desired to use a reactor feed pump that is in <b>CONTINUE</b> at step 12 to control the operating pur	<u>*</u>		
Standard:			
Operator proceeds to step 12			
SAT UNSAT N/A COMMENTS:			

****************************

*****	*****	**********************
Performance :	Step 11:	Critical X Not Critical
12.		<b>VLY ADJUST</b> RFPT speed UNTIL feedwater flow to the RPV is indicated, ANY of the following methods on Panel 2-9-5:
	•	Individual 2-HS-46-8A(9A), RFPT 2A(2B) SPEED CONT RAISE/LOWER switch in MANUAL GOVERNOR,
		OR
	•	Individual 2-SIC-46-8(9), RFPT 2A(2B) SPEED CONTROL in MANUAL,
		OR
	•	2-LIC-46-5, REACTOR WATER LEVEL CONTROL, in MANUAL with individual 2-SIC-46-8(9), RFPT 2A(2B) SPEED CONTROL in AUTO.
13.	ADJU 12.	ST RFPT speed as necessary to control injection using the methods of step
Standard:		
		s RFP A or B speed until injection is indicated by one of the above methods, FP A or B speed to maintain level minus 50 to minus 100 inches
SAT UN	SAT	_ N/A COMMENTS:
		END OF TASK
STOP TIME		

JPM b PAGE 1 OF 11

OPERATOR:					
RO SRO _	DATE:				
JPM NUMBER:	b				
TASK NUMBER:	U-000-EM-28				
TASK TITLE:	3-EOI Appendix-4 Injection Prevention				
K/A NUMBER:	295031 EA1.12 K/A RATING: RO 3.9 SRO 4.1				
TASK STANDARD: Prevent Injection per 3-EOI Appendix-4, and then maintain level minus to minus 100 inches using 3-EOI-Appendix-5A					
LOCATION OF PER	FORMANCE: Simulator				
REFERENCES/PROC	CEDURES NEEDED: 3-EOI Appendix-4, 3-EOI-Appendix-5A				
VALIDATION TIME	E: 15 minutes				
MAX. TIME ALLOW	VED: (Completed for Time Critical JPMs only)				
PERFORMANCE TI	ME:				
COMMENTS:					
Additional comment s	sheets attached? YES NO				
RESULTS: SATIS	SFACTORY UNSATISFACTORY				
SIGNATURE:	DATE:				

while

**INITIAL CONDITIONS**: You are a Unit Operator. An ATWS is in progress. Plant conditions are as found.

**INITIATING CUE**: The Unit Supervisor directs you to stop and prevent all injection into the RPV except RCIC, CRD and SLC in accordance with 3-EOI Appendix-4, Prevention of Injection, once level has lowered to minus 50 inches, maintain level minus 50 to minus 100 inches using 3-EOI-Appendix-5A.

***********************************

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

************************************

**INITIAL CONDITIONS**: You are a Unit Operator. An ATWS is in progress. Plant conditions are as found.

**INITIATING CUE**: The Unit Supervisor directs you to stop and prevent all injection into the RPV except RCIC, CRD and SLC in accordance with 3-EOI Appendix-4, Prevention of Injection, once level has lowered to minus 50 inches, maintain level minus 50 to minus 100 inches using 3-EOI-Appendix-5A.

JPM b PAGE 4 OF 11

START TIME
********************************
Performance Step 1: *Critical X Not Critical
NOTE Steps 1 through 6 may be performed in any order.
PREVENT injection from HPCI by performing the following:
a. IF HPCI Turbine is NOT at zero speed, THEN <b>PRESS</b> and <b>HOLD 3-</b> HS-73-18A HPCI TURBINE TRIP push-button.
*b. WHEN HPCI Turbine is at zero speed, THEN <b>PLACE</b> 3-HS-73-47A, HPCI AUXILIARY OIL PUMP control switch in PULL TO LOCK and <b>RELEASE</b> 3-HS-73-18A, HPCI TURBINE TRIP push-button.
Standard:
Verifies HPCI Turbine at zero speed and places HPCI Aux Oil Pump in Pull to Lock
SAT UNSAT N/A COMMENTS:
**************************************
2. <b>PREVENT</b> injection from RCIC by performing the following:
a. IF <b>DIRECTED</b> by SRO to allow RCIC injection, THEN <b>EXIT</b> step 2.
b. <b>PRESS</b> 3-HS-71-9A, RCIC TURBINE TRIP push-button to trip RCIC Turbine.
Standard:
RCIC is not prevented
SAT UNSAT N/A COMMENTS:

NOT	<b>r</b>			
Performance Step 3:	Critical _	Not C	Critica	l <u>X</u>
*************	********	*****	****	****
		PM 1 AGE 5		11

Following receipt of a CORE SPRAY automatic initiation signal, it is NOT necessary to wait until a pump starts before performing step 3.

3. PREVENT injection from CORE SPRAY following an initiation signal by PLACING ALL Core Spray pump control switches in STOP.

# Standard:

No initiation signal exists and <b>DOES NOT</b> place Core Spray pump control so	witches i	in
STOP.		

SAI	UNSA	.1 N/A _	COMME	N15:	 	

JPM	b		
PAGE	6	OF	11

		PAGE 6 OF 11
******	*****	************************
Performance	e Step 4:	Critical Not Critical X_
4. <b>PRE</b>	E <b>VENT</b> i	njection from LPCI SYSTEM I by performing the following:
		NOTE
Injection ma	av be pre	vented by performing EITHER step 4.a or step 4.b.
	- <u>J</u> = 0 pro	Total of periodining Edition (in or step in).
a.		wing automatic pump start, <b>PLACE</b> RHR SYSTEM I pump control hes in STOP.
		OR
b.	BEFC	ORE RPV pressure drops below 450 psig,
	1)	PLACE 3-HS-74-155A, LPCI SYS I OUTBD INJ VLV BYPASS SEL in BYPASS.
		AND
	2)	<b>VERIFY CLOSED</b> 3-FCV-74-52, RHR SYS I LPCI OUTBD INJECT VALVE.
Standard:		
Clos	es 3-FCV	7-74-52 before RPV pressure drops below 450 psig
SAT UN	NSAT	_ N/A COMMENTS:

JPM	b			
PAGE	7	OF	11	

******	*************	***********
Performance S	Step 5:	Critical $_$ Not Critical $\underline{X}$
5. PREV	VENT injection from LPCI SYSTEM II by	y performing the following:
	NOTE	
Injection may	be prevented by performing EITHER step	o 5.a or step 5.b.
a.	Following automatic pump start, <b>PLAC</b> switches in STOP.	E RHR SYSTEM II pump control
	OR	
b.	BEFORE RPV pressure drops below 450	O psig,
	1) PLACE 3-HS-74-155B, LPCI ST BYPASS.	YS II OUTBD INJ VLV BYPASS SEL in
	AND	
	2) <b>VERIFY CLOSED</b> 3-FCV-74-6 VALVE.	66, RHR SYS II LPCI OUTBD INJECT
Standard:		
Closes	s 3-FCV-74-66 before RPV pressure drops	below 450 psig
SAT UNS	SAT N/A COMMENTS:	
		**************************************

JPM b PAGE 8 OF 11

**	******	****	*******	*****	*****	*****	*****	****	***	****	****	****	****
_	^	~	_										

## Performance Step 6:

Critical _ Not Critical X

- 6. **PREVENT** injection from CONDENSATE and FEEDWATER by performing the following:
  - a. IF Immediate injection termination from a reactor feedwater pump is required, THEN **PERFORM** step 6.d for the desired pump.
  - b. **LOWER** RFPT 3C speed to minimum setting (approximately 600 rpm) using ANY of the following methods on Panel 3-9-5:
    - Using 3-LIC-46-5, REACTOR WATER LEVEL CONTROL, in MANUAL AND individual 3-SIC-46-10, RFPT 3C SPEED CONTROL in AUTO,

OR

 Using individual 3-SIC-46-10, RFPT 3C SPEED CONTROL in MANUAL,

OR

• Using individual 3-HS-46-10A, RFPT 3C SPEED CONT RAISE/LOWER switch in MANUAL GOVERNOR.

## Standard:

	Attempts to lo	wer 3C R	FPT speed, cannot	ot be lowered d	lue to a contro	oller failure	
SAT_	UNSAT	_ N/A	COMMENTS:			***************************************	

JPM	b		
PAGE	9	OF	11

## Performance Step 7:

Critical Not Critical X

- c. **CLOSE** the following valves BEFORE RPV pressure drops below 500 psig:
  - 3-FCV-3-19, RFP 3A DISCHARGE VALVE
  - 3-FCV-3-12, RFP 3B DISCHARGE VALVE
  - 3-FCV-3-5, RFP 3C DISCHARGE VALVE
  - 3-LCV-3-53, RFW START-UP LEVEL CONTROL

Standard:
-----------

		mines the arge valv	_	oressure will remai	n above 500 psig and <u>DOES NOT</u> close RFP
SAT	UN	ISAT	_N/A	_ COMMENTS: _	
****	*****	*****	*****	******	************
Perfo	rmance	Step 8:			Critical $\underline{X}$ Not Critical
	d.		RFPTs a	as necessary to pre	event injection by <b>DEPRESSING</b> the following
		• 3-HS	5-3-176A	, RFPT 3C TRIP.	
Stand	lard:				
	Trips	RFPT 30	C		
SAT	UN	ISAT	_N/A	_COMMENTS: _	

		JPM b PAGE 10	OF	11
**********	**********	******	****	***
Performance Step 9:	Criti	ical $\underline{X}$ Not Cr	itical	
	inches, then recommence injection win level band of -50 to -100 inches.	ith Feedwater	using	3-
Standard:				
Lowers level to minus 50 inc	ches then performs 3-EOI-Appendix-	5A to maintain	n leve	l band
SAT UNSAT N/A CO	MMENTS:			
		W-9000000000000000000000000000000000000		
NOTE: Applicant must of	control level in designated level band			
**********	***********	******	****	***
Performance Step 10:	Criti	ical _ Not Crit	ical X	<u>-</u>
	e a reactor feed pump that is in opera of 12 to control the operating pump.	tion, THEN		
Standard:				
Operator proceeds to step 12				

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

JPM	b		
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****	*****	*****	**********************
Performance Step 11:			Critical X Not Critical
			WLY ADJUST RFPT speed UNTIL feedwater flow to the RPV is indicated, ANY of the following methods on Panel 3-9-5:
			Individual 3-HS-46-8A(9A), RFPT 3A(3B) SPEED CONT RAISE/LOWER switch in MANUAL GOVERNOR,
			OR
		•	Individual 3-SIC-46-8(9), RFPT 3A(3B) SPEED CONTROL in MANUAL,
			OR
		•	3-LIC-46-5, REACTOR WATER LEVEL CONTROL, in MANUAL with individual 3-SIC-46-8(9), RFPT 3A(3B) SPEED CONTROL in AUTO.
	13.	<b>ADJU</b> 12.	JST RFPT speed as necessary to control injection using the methods of step
Standa	ard:		
			s RFP A or B speed until injection is indicated by one of the above methods, FP A or B speed to maintain level minus 50 to minus 100 inches
SAT_	UN	SAT	_ N/A COMMENTS:
			END OF TASK

STOP TIME ____

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OPERATOR:		-				
RO SRO _	DATE:					
JPM NUMBER:	c					
TASK NUMBER:	U-000-EM-55					
TASK TITLE:	2-EOI-Appendix-11C Mode	Alternate RPV Pressure Control Systems HPCI Test				
K/A NUMBER:	206000 A4.06	K/A RATING: RO 4.3 SRO 4.3				
TASK STANDARD:	2-EOI-Appendix-11C Test Mode	complete with HPCI controlling RPV pressure in				
LOCATION OF PERI	FORMANCE: Simula	tor				
REFERENCES/PROC	CEDURES NEEDED:	2-EOI-Appendix-11C				
VALIDATION TIME	: 10 minutes					
MAX. TIME ALLOW	/ED: (Completed for Ti	me Critical JPMs only)				
PERFORMANCE TI	ME:					
COMMENTS:						
Additional comment s	heets attached? YES _	NO				
RESULTS: SATIS	FACTORY	UNSATISFACTORY				
SIGNATURE:	EXAMINER	DATE:				

11/0/1/201

**INITIAL CONDITIONS**: You are an operator. The Unit 2 reactor has scrammed and bypass valves are not responding properly for pressure control. EOI-1 has been followed to RC/P-11.

**INITIATING CUE**: The Unit Supervisor directs you to place HPCI in Alternate RPV Pressure Control as directed by 2-EOI Appendix-11C and maintain Reactor Pressure 800-1000 psig

******************************

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

**INITIAL CONDITIONS**: You are an operator. The Unit 2 reactor has scrammed and bypass valves are not responding properly for pressure control. EOI-1 has been followed to RC/P-11.

**INITIATING CUE**: The Unit Supervisor directs you to place HPCI in Alternate RPV Pressure Control as directed by 2-EOI Appendix-11C and maintain Reactor Pressure 800-1000 psig

Simulator Driver:	This JPM requires <u>tc02 0</u> present on snap and malfunction <u>hp03 10</u> inserted when operator throttles the 73-35 valve, maintain Reactor water level with RCIC		
START TIME			
**************************************	**************************************		
and eq • Operat	CAUTION  ing HPCI turbine below 2400 rpm may result in unstable system operation aipment damage.  ing HPCI Turbine with suction temperatures above 140°F may result in ment damage.		
	n Pool level drops below 12.75 ft, THEN <b>TRIP</b> HPCI and <b>CONTROL</b> using other options.		
Standard:			
Operator verifi Wide range lev	es Suppression Pool Level above 12.75 feet using either Narrow range or vel indicators		
SATUNSATN	I/ACOMMENTS:		

JPM	С		
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****	*******************	******	******
Perfor	ormance Step 2:	Critical _	Not Critical X
2.	IF Emergency RPV Depressurization is required,		
	OR		
	Steam Cooling is required, THEN EXECUTE EOI Append to bypass HPCI Low RPV pressure and Test Mode Isolation		
Stand	dard:		
	Operator determines Appendices 16C and 16D are not requi	red	
SAT_	UNSAT N/ACOMMENTS:		
Cue:	: Emergency Depressurization or Steam Cooling is no	t require	d
****	*****************	and the standard standards	
	ormance Step 3:		Not Critical X
3.	IF Suppression Pool level CANNOT be maintained below 5 EOI Appendix 16E concurrently with this procedure to bype Pool Level Suction Transfer Interlock.		
Stand	dard:		
	Operator verifies Suppression Pool level below 5.25 inches o indicator and does not execute Appendix 16E	n Narrow	Range level
SAT_	UNSAT N/ACOMMENTS:		

JPM	C			
PAGE	6	OF	11	

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*********	************************
Performance Step 4:	Critical Not Critical X
	bine is operating, THEN ALIGN HPCI in test mode as follows:
a.	OPEN 2-FCV-73-35, HPCI PUMP CST TEST VLV.
b.	OPEN 2-FCV-73-36, HPCI/RCIC CST TEST VLV.
c.	CLOSE 2-FCV-73-44, HPCI PUMP INJECTION VALVE.
d.	<b>CONTINUE</b> in this procedure at Step 6.
Standard:	
Operator obse	erves HPCI is not operating and NAs step 4
SATUNSAT	N/ACOMMENTS:
******	************************
Performance Step 5:	Critical Not Critical X
5. IF HPCI is in	a standby readiness, THEN <b>START</b> HPCI as follows:
a.	VERIFY at least one SGTS Train in operation.
Standard:	
Operator veri Panel 2-9-20	ifies SGT in operation by illuminated RED SGTS status indicating lamps on
SATUNSAT	N/ACOMMENTS:
·	

and the control of th

JPM	С		
PAGE	7	OF	11

***********************
Performance Step 6: Critical Not Critical X
b. <b>VERIFY</b> 2-FIC-73-33, HPCI SYSTEM FLOW/CONTROL, controller in AUTO and set for 5300 gpm.
Standard:
Operator verifies 2-FIC-73-33 in AUTO and set for 5300 gpm on controller digital readout
SATUNSAT N/ACOMMENTS:
****************************
Performance Step 7: Critical X Not Critical
<u>NOTE</u>
NOTE  HPCI Auxiliary Oil Pump will NOT start UNTIL 2-FCV-73-16, HPCI TURBINE STEAM SUPPLY VLV, starts to open.
HPCI Auxiliary Oil Pump will NOT start UNTIL 2-FCV-73-16, HPCI TURBINE STEAM
HPCI Auxiliary Oil Pump will NOT start UNTIL 2-FCV-73-16, HPCI TURBINE STEAM SUPPLY VLV, starts to open.  c. PLACE 2-HS-73-47A, HPCI AUXILIARY OIL PUMP handswitch, in
HPCI Auxiliary Oil Pump will NOT start UNTIL 2-FCV-73-16, HPCI TURBINE STEAM SUPPLY VLV, starts to open.  c. PLACE 2-HS-73-47A, HPCI AUXILIARY OIL PUMP handswitch, in START.
HPCI Auxiliary Oil Pump will NOT start UNTIL 2-FCV-73-16, HPCI TURBINE STEAM SUPPLY VLV, starts to open.  c. PLACE 2-HS-73-47A, HPCI AUXILIARY OIL PUMP handswitch, in START.  Standard:
HPCI Auxiliary Oil Pump will NOT start UNTIL 2-FCV-73-16, HPCI TURBINE STEAM SUPPLY VLV, starts to open.  c. PLACE 2-HS-73-47A, HPCI AUXILIARY OIL PUMP handswitch, in START.  Standard:  Operator places 2-HS-73-47A in START.

JPM	С			
PAGE	8	OF	11	

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Performance Step 8:	Critical _ Not Critical X					
	ACE 2-HS-73-10A, HPCI STEAM PACKING EXHAUSTER, in ART.					
Standard:						
Operator places 2-I	HS-73-10A in START.					
SATUNSATN/A	COMMENTS:					
*******	· *************************					
Performance Step 9:	*Critical $\underline{X}$ Not Critical					
e. <b>OP</b> l	EN the following valves:					
*•	2-FCV-73-36, HPCI/RCIC CST TEST VLV					
*•	2-FCV-73-35, HPCI PUMP CST TEST VLV					
•	2-FCV-73-30, HPCI PUMP MIN FLOW VALVE.					
Standard:						
	ndswitches 2-HS-73-36A, 2-HS-73-35A, and 2-HS-73-30A in the diverifies only RED valve position indicating lamps illuminated above switches.					
SATUNSATN/A_	COMMENTS:					

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*************	******************		
Performance Step 10:	Critical $\underline{X}$ Not Critical		
f. <b>OPEN</b> 2-FCV-73-16, HPCI HPCI Turbine.	TURBINE STEAM SUPPLY VLV, to start		
Standard:			
Operator places 2-HS-73-16A in OPEN and indicating lamp above handswitch	verifies illuminated RED valve position		
SAT UNSAT N/ACOMMENTS:	NAME OF THE OWNER OWNER OF THE OWNER OWNE		
**************************************	Critical _ Not Critical X		
g. <b>VERIFY</b> HPCI Auxiliary O 2400 rpm.	il Pump starts and turbine accelerates above		
Standard:			
Operator verifies HPCI AUX Oil Pump start 2-HS-73-47A and verifies speed >2400 rpm			
SAT UNSAT N/ACOMMENTS:			

JPM	С		
PAGE	10	OF	11

			17100 10 01 11
			***************
Perform	ance Step 12	<u>:</u>	Critical _ Not Critical X
6. <b>V</b>	VERIFY pro	oper HPCI minimum flow val	ve operation as follows:
	a.	IF HPCI flow is above 120 30, HPCI PUMP MIN FLC	0 gpm, THEN <b>VERIFY CLOSED</b> 2-FCV-73- W VALVE.
	b	IF HPCI flow is below 600 HPCI PUMP MIN FLOW	gpm, THEN <b>VERIFY OPEN</b> 2-FCV-73-30, VALVE.
Standard	<u>l:</u>		
	When flow > ight above h		perator verifies 2-FCV-73-30 closes by green
SAT	UNSAT	N/ACOMMENTS:	
sie sie sie sie sie sie	ه الد عاد عاد عاد عاد عاد عاد عاد عاد	de ale ale ale ale ale ale ale ale ale al	
	ance Step 13		**************************************
		E 2-FCV-73-35, HPCI PUMP essure at or below 1100 psig.	P CST TEST VLV, to control HPCI pump
Standard	<u>1:</u>		
		ottles 2-FCV-73-35 using han 2-PI-73-31A	dswitch to control pressure less than or equal to
SAT	UNSAT	N/ACOMMENTS:	
DRIVE	R: Wi	ien operator throttles 2-FCV	7-73-35 insert malfunction hp03 at 10% to fail
		HPCI flow controller in au	tomatic control

JPM	С		
PAGE	11	OF	11

****	*****	**********************
Perform	mance Step 14	E: Critical X Not Critical
8.	ADJUST 2-	FIC-73-33, HPCI SYSTEM FLOW/CONTROL, controller to control RPV
Standa	rd:	
	failed downs	empts to adjust HPCI SYSTEM FLOW/CONTROL, however, controller has cale in automatic. Operator shifts controller to manual and adjusts HPCI flow. usts controller and 2-FCV-73-35 to control Reactor pressure.
SAT_	_UNSAT	N/ACOMMENTS:
		************************
Perfori	mance Step 15	<u>S:</u> Critical Not Critical <u>X</u>
9.	IF HPCI injetfollows:	ection to the RPV becomes necessary, THEN ALIGN HPCI to the RPV as
	a.	<b>OPEN</b> 2-FCV-73-44, HPCI PUMP INJECTION VALVE.
	b.	<b>THROTTLE</b> 2-FCV-73-35, HPCI PUMP CST TEST VLV, to control injection.
	c.	GO TO EOI Appendix-5D.
Standa	rd:	
	Operator mor	nitors Reactor water level and determines HPCI injection to the RPV is not
SAT_	_UNSAT	N/ACOMMENTS:
Cue:	Trica	tion to the RPV is not necessary at this time
Cut.	injec	END OF TASK
STOP	TIME	

JPM c PAGE 1 OF 11

OPERATOR:	
RO SRO _	DATE:
JPM NUMBER:	c
TASK NUMBER:	U-000-EM-55
TASK TITLE:	3-EOI-Appendix-11C Alternate RPV Pressure Control Systems HPCI Test Mode
K/A NUMBER:	206000 A4.06 K/A RATING: RO 4.3 SRO 4.3
TASK STANDARD:	3-EOI-Appendix-11C complete with HPCI controlling RPV pressure in Test Mode
LOCATION OF PERI	FORMANCE: Simulator
REFERENCES/PROC	CEDURES NEEDED: 3-EOI-Appendix-11C
VALIDATION TIME	: 10 minutes
MAX. TIME ALLOW	ED: (Completed for Time Critical JPMs only)
PERFORMANCE TI	ME:
Additional comment s	heets attached? YES NO
RESULTS: SATIS	FACTORY UNSATISFACTORY
SIGNATURE:	DATE: EXAMINER

Met 20/11

**INITIAL CONDITIONS**: You are an operator. The Unit 3 reactor has scrammed and bypass valves are not responding properly for pressure control. EOI-1 has been followed to RC/P-11.

**INITIATING CUE**: The Unit Supervisor directs you to place HPCI in Alternate RPV Pressure Control as directed by 3-EOI Appendix-11C and maintain Reactor Pressure 800-1000 psig

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

**INITIAL CONDITIONS**: You are an operator. The Unit 3 reactor has scrammed and bypass valves are not responding properly for pressure control. EOI-1 has been followed to RC/P-11.

**INITIATING CUE**: The Unit Supervisor directs you to place HPCI in Alternate RPV Pressure Control as directed by 3-EOI Appendix-11C and maintain Reactor Pressure 800-1000 psig

Simulator Driver:	This JPM requires <u>tc02 0</u> present on snap and malfunction <u>hp03 10</u> inserted when operator throttles the 73-35 valve, maintain Reactor water level with RCIC
START TIME	
*******	**********************
Performance Step 1:	Critical Not Critical <u>X</u>
	CAUTION
	ng HPCI turbine below 2400 rpm may result in unstable system operation aipment damage.
• Operati	ng HPCI Turbine with suction temperatures above 140°F may result in lent damage.
equipin	ent damage.
	Pool level drops below 12.75 ft, THEN <b>TRIP</b> HPCI and <b>CONTROL</b> using other options.
Standard:	
Operator verific Wide range lev	es Suppression Pool Level above 12.75 feet using either Narrow range or el indicators
SATUNSATN	/ACOMMENTS:

JPM	С		
PAGE	5	OF	11

****	*******************	*****	***********
<u>Perfor</u>	ormance Step 2:	Critical _	Not Critical X
2.	IF Emergency RPV Depressurization is required,		
	OR		
	Steam Cooling is required, THEN <b>EXECUTE</b> EOI Appendit to bypass HPCI Low RPV pressure and Test Mode Isolation		-
Standa	dard:		
	Operator determines Appendices 16C and 16D are not requir	ed	
SAT_	UNSAT N/ACOMMENTS:		
Cue:	Emergency Depressurization or Steam Cooling is not	require	d
****	*****************	*****	*******
Perfor	ormance Step 3:	Critical _	Not Critical X
3.	IF Suppression Pool level CANNOT be maintained below 5. EOI Appendix 16E concurrently with this procedure to bypa. Pool Level Suction Transfer Interlock.	· ·	
Standa	dard:		
	Operator verifies Suppression Pool level below 5.25 inches or indicator and does not execute Appendix 16E	ı Narrow	Range level
SAT_	UNSAT N/ACOMMENTS:		
		·····	

JPM	С			
PAGE	6	OF	11	

***********************
Performance Step 4: Critical Not Critical X
4. IF HPCI Turbine is operating, THEN <b>ALIGN</b> HPCI in test mode as follows:
a. <b>OPEN</b> 3-FCV-73-35, HPCI PUMP CST TEST VLV.
b. <b>OPEN</b> 3-FCV-73-36, HPCI/RCIC CST TEST VLV.
c. <b>CLOSE</b> 3-FCV-73-44, HPCI PUMP INJECTION VALVE.
d. <b>CONTINUE</b> in this procedure at Step 6.
Standard:
Operator observes HPCI is not operating and NAs step 4
SATUNSAT N/ACOMMENTS:
*******************************
Performance Step 5: Critical Not Critical X
5. IF HPCI is in standby readiness, THEN <b>START</b> HPCI as follows:
a. <b>VERIFY</b> at least one SGTS Train in operation.
Standard:
Standard:  Operator verifies SGT in operation by illuminated RED SGTS status indicating lamps on Panel 3-9-20
Operator verifies SGT in operation by illuminated RED SGTS status indicating lamps on
Operator verifies SGT in operation by illuminated RED SGTS status indicating lamps on Panel 3-9-20

	JPM c PAGE 7 OF 11
**************	************
Performance Step 6:	Critical _ Not Critical X
b. <b>VERIFY</b> 3-FIC-73-33, HPC AUTO and set for 5300 gpm.	I SYSTEM FLOW/CONTROL, controller in
Standard:	
Operator verifies 3-FIC-73-33 in AUTO and readout	set for 5300 gpm on controller digital
SAT UNSAT N/ACOMMENTS:	
***********	***********
Performance Step 7:	Critical X Not Critical
NOTE	7
HPCI Auxiliary Oil Pump will <u>NOT</u> start <u>UNTIL</u> 3- SUPPLY VLV, starts to open.	-FCV-73-16, HPCI TURBINE STEAM
c. <b>PLACE</b> 3-HS-73-47A, HPC START.	I AUXILIARY OIL PUMP handswitch, in
Standard:	

Operator places 3-HS-73-47A in START.

SAT__UNSAT__ N/A __COMMENTS:____

JPM	С			
PAGE	8	OF	11	

**************************************	**************	**************************************
d.	<b>PLACE</b> 3-HS-73-10A, HPCI STEAM PACE START.	KING EXHAUSTER, in
Standard:		
Operator place	s 3-HS-73-10A in START.	
SATUNSATN	J/ACOMMENTS:	
**************************************	*************	**************************************
e.	<b>OPEN</b> the following valves:	
	*• 3-FCV-73-36, HPCI/RCIC CST TES	T VLV
	*• 3-FCV-73-35, HPCI PUMP CST TE	ST VLV
	• 3-FCV-73-30, HPCI PUMP MIN FLO	OW VALVE.
Standard:		
	s handswitches 3-HS-73-36A, 3-HS-73-35A, a and verifies only RED valve position indicatrol switches.	
SATUNSATN	J/ACOMMENTS:	

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******	***************************************
Performance Step 10:	Critical X Not Critical
f.	<b>OPEN</b> 3-FCV-73-16, HPCI TURBINE STEAM SUPPLY VLV, to start HPCI Turbine.
Standard:	
1 1	es 3-HS-73-16A in OPEN and verifies illuminated RED valve position p above handswitch
SATUNSATN	N/ACOMMENTS:
**************************************	**************************************
g.	<b>VERIFY</b> HPCI Auxiliary Oil Pump starts and turbine accelerates above 2400 rpm.
Standard:	
_	ies HPCI AUX Oil Pump starts by observing RED light illuminated above and verifies speed >2400 rpm on 3-SI-73-51
SATUNSATN	J/ACOMMENTS:

JPM	С		
PAGE	10	OF	11

				PAGE IU OF II
	********* mance Step			**************************************
6.	VERIFY p	oroper HPCI minimum f	low valve operation as follo	ows:
	a.	IF HPCI flow is abo 30, HPCI PUMP M		IFY CLOSED 3-FCV-73-
	b	IF HPCI flow is bel HPCI PUMP MIN I	ow 600 gpm, THEN <b>VERI</b> FLOW VALVE.	<b>FY OPEN</b> 3-FCV-73-30,
Standa	ard:			
		>1200 gpm on 3-FIC-73 handswitch	3-33, Operator verifies 3-FC	V-73-30 closes by green
SAT_	_UNSAT	_ N/ACOMMENTS	S:	
	********* mance Step			**************************************
7.		LE 3-FCV-73-35, HPC pressure at or below 110	PUMP CST TEST VLV, t psig.	o control HPCI pump
Standa	ard:			
		arottles 3-FCV-73-35 us on 3-PI-73-31A	ing handswitch to control p	ressure less than or equal to
SAT_	_UNSAT	_ N/ACOMMENTS	S:	
DRIV	ER: V			nction hp03 at 10% to fail
		HPCI flow controll	er in automatic control	

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. . . . . .

JPM	С		
PAGE	11	OF	11

	************* mance Step 1	**************************************								
8.	<b>ADJUST</b> 3-FIC-73-33, HPCI SYSTEM FLOW/CONTROL, controller to control RPV pressure.									
Standa	ard:									
	Operator attempts to adjust HPCI SYSTEM FLOW/CONTROL, however, controller has failed downscale in automatic. Operator shifts controller to manual and adjusts HPCI flow. Operator adjusts controller and 3-FCV-73-35 to control Reactor pressure.									
SAT_	_UNSAT	N/ACOMMENTS:								
<del></del>										
	********* mance Step 1:	**************************************								
9.	IF HPCI injustion of the second secon	ection to the RPV becomes necessary, THEN ALIGN HPCI to the RPV as								
	a.	OPEN 3-FCV-73-44, HPCI PUMP INJECTION VALVE.								
	b.	<b>THROTTLE</b> 3-FCV-73-35, HPCI PUMP CST TEST VLV, to control injection.								
	c.	GO TO EOI Appendix-5D.								
Standa	ırd:									
	Operator mo	onitors Reactor water level and determines HPCI injection to the RPV is not								
SAT_	_UNSAT	N/ACOMMENTS:								
Cue:	Injec	ction to the RPV is not necessary at this time								
		END OF TASK								
STOP	TIME	<u>-</u>								

JPM d PAGE 1 OF 11

OPERATOR:		_
RO SRO _	DATE:	
JPM NUMBER:	d	
TASK NUMBER:	U-000-EM-63	
TASK TITLE:	2-EOI-Appendix-13 Emerge	ncy Venting Primary Containment
K/A NUMBER:	295024 EA2.01	K/A RATING: RO 4.2 SRO 4.4
TASK STANDARD:	2-EOI-Appendix-13 complet maintained below 55 psig	e with Drywell Pressure restored and
LOCATION OF PER	FORMANCE: Simulator	
REFERENCES/PROC	CEDURES NEEDED: 2-EOI	-Appendix-13
VALIDATION TIME	: 5 minutes	
MAX. TIME ALLOW	ED: (Completed for Time Cri	tical JPMs only)
PERFORMANCE TI	ME:	
COMMENTS:		
Additional comment s	heets attached? YES NO	)
RESULTS: SATIS	FACTORY UNSA	TISFACTORY
SIGNATURE:	EXAMINER	DATE:

Medal 1

**INITIAL CONDITIONS**: You are an operator. A large leak inside Primary Containment has developed on Unit 2. The Reactor has been scrammed and several control rods are not fully inserted. Primary containment pressure has exceeded the PSP curve (curve 6) and is approaching 55 psig and rising.

**INITIATING CUE**: The Unit Supervisor directs you to emergency vent Primary Containment as directed by 2-EOI Appendix 13 and maintain Primary Containment pressure below 55 psig

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

*******************************

**INITIAL CONDITIONS**: You are an operator. A large leak inside Primary Containment has developed on Unit 2. The Reactor has been scrammed and several control rods are not fully inserted. Primary containment pressure has exceeded the PSP curve (curve 6) and is approaching 55 psig and rising.

**INITIATING CUE**: The Unit Supervisor directs you to emergency vent Primary Containment as directed by 2-EOI Appendix 13 and maintain Primary Containment pressure below 55 psig

Simulator Driver: This JPM may require RHR injection for level control
START TIME
**************************
Performance Step 1: Critical Not Critical <u>X</u>
1. NOTIFY Shift Manager / SED of the following:
• Emergency Venting of Primary Containment is in progress.
Off-Gas Release Rate Limits will be exceeded.
Standard:
Operator notifies Shift Manager/SED
SATUNSAT N/ACOMMENTS:
CUE: As Shift Manager/SED acknowledge report that Emergency Primary Containment Venting is in progress and Off-Gas release limits will be exceeded

$\mathtt{JPM}$	d		
PAGE	5	OF	11

	****** mance S		*****	*****	*****	****	****	*****	****			************** Not Critical <u>X</u>
2.	VENT	$f \Gamma$ the $S\iota$	uppress	ion Cha	mber as	s follo	ws (P	anel 9-	3):			
	a.	IF EI	THER (	of the fo	llowing	g exists	es:					
		•	Supp	ression I	Pool wa	ater le	vel C	ANNO'	T be	determi	ined	to be below 20 ft,
					OR							
		•	Supp	ression (	Chambe	er CA	NNO	Γ be ve	nted,			
	THEN	N CON	TINUE	E in this [	procedu	ure at	Step 3	3.				
Standa	ard:											
	_	ntor veri		ppressio	n Pool l	level l	below	20 ft u	sing	2-LI-64	<b>1-</b> 15	9A and does not
SAT_	_ UNS	AT	N/A	_COMM	MENTS	:						
	***** mance S	Step 3: PLAC	<b>CE</b> key		tch 2-H	IS-64-	-222B			Critica	al <u>X</u>	***************  Not Critical  CHBR VENT
Standa	ard:											
	Operat	itor plac	ces 2-H	S-64-222	2B in the	e PER	RM po	sition				
SAT_	_UNS	AT	N/A	_COMM	MENTS	\:						

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******************	*********
Performance Step 4:	Critical Not Critical X
c. <b>CHECK</b> blue indicating light above 2-HS-64-222B CHBR VENT OUTBD PERMISSIVE, illuminated.	, HARDENED SUPPR
Standard:	
Operator verifies BLUE indicating lamp above 2-HS-64-222	B Illuminated
SATUNSAT N/ACOMMENTS:	
**************************************	Critical _ Not Critical X
d. <b>OPEN</b> 2-FCV-64-222, HARDENED SUPPR CHBI	R VENT OUTBD ISOL VLV.
Standard:	
Operator places 2-HS-64-222A in the OPEN position and de opened. Operator proceeds to set 3 by direction of step 2.a	termines valve cannot be
SATUNSAT N/ACOMMENTS:	

JPM	đ		
PAGE	7	OF	11

	3332 7 32 22	
*******	***************************	
Performance	Step 6: Critical _ Not Critical X	
	IF Suppression Chamber vent path is NOT available, THEN <b>VENT</b> the Drywell as follows:	
a.	<b>NOTIFY</b> Shift Manager / SED that Secondary Containment integrity failure is possible.	
b.	<b>NOTIFY</b> Radiation Protection that Reactor Building is being evacuated due to imminent failure of Primary Containment vent ducts.	
c.	EVACUATE ALL Reactor Buildings using P.A. System.	
Standard:		
the Revent o	ator notifies the SM/SED that containment integrity failure is possible, notifies RP that eactor Building will be evacuated due to imminent failure of Primary Containment ducts, and makes P.A. announcement to evacuate Reactor Building.	
SATUNS	AT N/ACOMMENTS:	
Material Control of the Control of t		
CUE:	As SM/SED acknowledge report of possible containment integrity failure, As RP acknowledge report of Reactor Building evacuation due to imminent failure of Primary Containment vent ducts.	
**************************************	**************************************	
d.	START ALL available SGTS trains.	
Standard:		
Opera	ator determines that all trains of SGTS are already in service	
SATUNS	AT N/ACOMMENTS:	

	JPM d PAGE 8 OF 11
*************	************
Performance Step 8:	Critical _ Not Critical X
e. <b>VERIFY CLOSED</b> 2-FCV-64-36, DV (Panel 9-3)	W/SUPPR CHBR VENT TO SGT
Standard:	
Operator verifies 2-FCV-64-36 is closed on Par	nel 9-3
SAT UNSAT N/ACOMMENTS:	
**************************************	**************************************
f. <b>VERIFY OPEN</b> the following damper	rs (Panel 9-25):
• 2-FCO-64-40, REACTOR ZON	NE EXH TO SGTS
• 2-FCO-64-41, REACTOR ZON	NE EXH TO SGTS
Standard:	
Operator verifies dampers 2-FCO-64-40 and 2-	FCO-64-41 are open on Panel 9-25
SAT UNSAT N/ACOMMENTS:	
**************************************	**************************************
g. <b>VERIFY CLOSED</b> 2-FCV-64-29, DF (Panel 9-3 or Panel 9-54).	RYWELL VENT INBD ISOL VALVE
Standard:	
Operator verifies 2-FCV-64-29 is closed on Par	nel 9-3 or Panel 9-54

SAT__UNSAT__ N/A __COMMENTS:____

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*******	*****	************************
Performance	Step 11	: Critical _ Not Critical X
h.	<b>DISP</b> follow	PATCH personnel to Unit 2 Auxiliary Instrument Room to perform the wing:
	1)	<b>REFER TO</b> Attachment 1 and <b>OBTAIN</b> one 12-in. banana jack jumper from EOI Equipment Storage Box.
	2)	LOCATE terminal strip DD in Panel 9-43, Front.
	3)	<b>JUMPER</b> DD-76 to DD-77 (Panel 9-43).
	4)	<b>NOTIFY</b> Unit Operator that jumper for 2-FCV-64-30, DRYWELL VENT OUTBD ISOLATION VLV, is in place.
Standard:		
Oper	ator con	tacts an AUO or an extra operator to perform step h.1) thru h.4)
SATUNS	SAT	N/ACOMMENTS:
		ontacted to perform step h.1) thru h.4) provide repeat back and inform r that the Jumper for 2-FCV-64-30 is in place
******	*****	**********************
Performance		
i.		IFY OPEN 2-FCV-64-30, DRYWELL VENT OUTBD ISOLATION (Panel 9-3).
Standard:	. — .	
Oper	ator ope	ns 2-FCV-64-30 on panel 9-3
SATUNS	SAT	N/ACOMMENTS:
	-	

JPM	đ		
PAGE	10	OF	11

Performance Step 13:	Critical X Not Critical
CAUT	TION
• The following step will fail ductwork inside Secondary Containment Integrity.	e Secondary Containment and may fail
Off-Gas Release Rate Limits will be exceed.	ed.
j. <b>PLACE</b> keylock switch 2-HS-84-36 SELECT, to DRYWELL (Panel 9-5-	5, SUPPR CHBR/DW VENT ISOL BYP 4).
Standard:	
Operator places keylock switch 2-HS-84-36	to the DRYWELL position
SATUNSATN/ACOMMENTS:	
************	************
Performance Step 14:	Critical _ Not Critical X
k. <b>VERIFY OPEN</b> 2-FCV-64-29, DR (Panel 9-54).	YWELL VENT INBD ISOL VALVE
Standard:	
Operator verifies that 2-FCV-64-29 opens or	n Panel 9-54
SAT UNSAT N/ACOMMENTS:	

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JPM	đ		
PAGE	11	OF	11

***************************************

## Performance Step 15:

Critical _ Not Critical X

- 1. **CHECK** Drywell and Suppression Chamber pressure lowering.
- m. **MAINTAIN** Primary Containment pressure below 55 psig using 2-FCV-64-29, DRYWELL VENT INBD ISOL VALVE, as directed by SRO.

## Standard:

Operator checks that Drywell and Suppression Chamber pressure are lowering and informs SRO that Emergency Venting of the Drywell is in progress

SAT	UNSAT	N/A	COMMENTS:	

CUE: As SRO acknowledge report of emergency venting of Drywell in progress.

JPM complete

**END OF TASK** 

STOP TIME____

JPM d PAGE 1 OF 11

OPERATOR:		
RO SRO _	DATE:	<u></u>
JPM NUMBER:	d	
TASK NUMBER:	U-000-EM-63	
TASK TITLE:	3-EOI-Appendix-13 Emergency V	Venting Primary Containment
K/A NUMBER:	295024 EA2.01 K/A	A RATING: RO 4.2 SRO 4.4
TASK STANDARD:	3-EOI-Appendix-13 complete wit maintained below 55 psig	h Drywell Pressure restored and
LOCATION OF PER	FORMANCE: Simulator	
REFERENCES/PROC	CEDURES NEEDED: 3-EOI-App	endix-13
VALIDATION TIME	: 5 minutes	
MAX. TIME ALLOW	VED: (Completed for Time Critical	JPMs only)
PERFORMANCE TI	ME:	
COMMENTS:		
Additional comment s	sheets attached? YES NO	-
RESULTS: SATIS	FACTORY UNSATISF	FACTORY
SIGNATURE:	DA EXAMINER	TE:

10 Jaly

**INITIAL CONDITIONS**: You are an operator. A large leak inside Primary Containment has developed on Unit 3. The Reactor has been scrammed and several control rods are not fully inserted. Primary containment pressure has exceeded the PSP curve (curve 6) and is approaching 55 psig and rising.

**INITIATING CUE**: The Unit Supervisor directs you to emergency vent Primary Containment as directed by 3-EOI Appendix 13 and maintain Primary Containment pressure below 55 psig

******************************

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

**********************************

**INITIAL CONDITIONS**: You are an operator. A large leak inside Primary Containment has developed on Unit 3. The Reactor has been scrammed and several control rods are not fully inserted. Primary containment pressure has exceeded the PSP curve (curve 6) and is approaching 55 psig and rising.

**INITIATING CUE**: The Unit Supervisor directs you to emergency vent Primary Containment as directed by 3-EOI Appendix 13 and maintain Primary Containment pressure below 55 psig

Simulator Driver: This JPM may require RHR injection for level control
START TIME
*****************************
Performance Step 1: Critical Not Critical X
1. <b>NOTIFY</b> Shift Manager / SED of the following:
• Emergency Venting of Primary Containment is in progress.
Off-Gas Release Rate Limits will be exceeded.
Standard:
Operator notifies Shift Manager/SED
SATUNSAT N/ACOMMENTS:
CUE: As Shift Manager/SED acknowledge report that Emergency Primary Containment Venting is in progress and Off-Gas release limits will be exceeded

JPM	d			
PAGE	5	OF	11	

	***** mance S		****	****	****	***:	***	***	**	***	***	***	***	***	***		***: Critic								**
2.	VENT	n Cha	amt	ber a	as fo	olle	ow	s (I	Pan	nel 9	9-3	):													
	a.	IF EI	THE	R of	the fo	ollo	win	ıg ex	xis	sts:															
		•	Su	ippres	ssion	ı Po	ol w	vatei	r le	eve	el C	AN	NN	ТО	be	de	term	nine	d t	to	be	belo	w 2	20 f	t,
		•	Su	ıppres	ssion		OR amb	ber (	CA	ANI	NO	T l	be v	ven	ited	.,									
	THEN	I CON	TIN	UE in	n this	s pro	oced	dure	at	t St	tep	3.													
Standa	rd:																								
		tor veri ue to st			ressio	on I	Pool	l lev	vel	be	lov	v 20	0 ft	t us	ing	; 3-]	LI-6	64-1:	59.	Α	an	d do	oes 1	not	
SAT_	_UNSA	AT	N/A		COM	ME	ENTS	S:																	
	****** mance S		***	****	****	***	***	***	**	***	***	***	***	***	***		***:							***	**
	b.	PLAC OUT									22E	3, I	ΉA	RD	EN	IED	) SU	J <b>PP</b> )	R (	Cł	ΗВ	R V	ΈN	T	
Standa	<u>rd:</u>																								
	Operat	tor plac	ces 3	-HS-6	54-22	22B	in tl	he P	PEI	RM	1 pc	osit	tion	ì											
SAT_	_UNSA	AT	N/A		COM	ME	ENTS	S:													-				
													•							**********					

		JPM	ı d
		PAG	E 6 OF 11
******	***********	*********	******
Performance S	<u>Step 4:</u>	Critical 1	Not Critical X
c.	CHECK blue indicating light above CHBR VENT OUTBD PERMISSI	· · · · · · · · · · · · · · · · · · ·	ED SUPPR
Standard:			
Operat	tor verifies BLUE indicating lamp about	ove 3-HS-64-222B Illuminate	d
SATUNSA	ATN/ACOMMENTS:		
******	***********	*********	******
Performance S	<u>Step 5:</u>	Critical J	Not Critical X
d.	OPEN 3-FCV-64-222, HARDENE	ED SUPPR CHBR VENT OU	JTBD ISOL VLV.
Standard:			
	tor places 3-HS-64-222A in the OPEI d. Operator proceeds to set 3 by direct		ve cannot be

SAT__ UNSAT__ N/A ___COMMENTS:_____

JPM	d		
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				Pi	AGE / OF II
		**********			
<u>Perfor</u>	mance	Step 6:	C	ritical _	Not Critical X
3.	IF Suj follov	ppression Chamber vent path is vs:	NOT available, THEN	<b>VENT</b> tl	he Drywell as
	a.	<b>NOTIFY</b> Shift Manager / SEI possible.	O that Secondary Contain	inment ii	ntegrity failure is
	b.	NOTIFY Radiation Protection imminent failure of Primary C		is being	evacuated due to
	c.	EVACUATE ALL Reactor B	uildings using P.A. Syst	tem.	
Standa	<u>ırd:</u>				
	the Re	tor notifies the SM/SED that coreactor Building will be evacuated lucts, and makes P.A. announcen	due to imminent failure	of Prim	ary Containment
SAT_	_ UNS	ATN/ACOMMENTS:_			
CUE:		As SM/SED acknowledge rep RP acknowledge report of Re failure of Primary Containm	eactor Building evacua		
	***** mance (	**************************************			**************************************
	d.	START ALL available SGTS	trains.		
Standa	<u>ırd:</u>				
	Opera	tor determines that all trains of S	GTS are already in servi	ice	
SAT_	_UNS	ATN/ACOMMENTS:_			

and the second of the second o

JPM	d		
PAGE	8	OF	11

	PAGE 8 OF 11
***************	*********
Performance Step 8:	Critical _ Not Critical X
e. <b>VERIFY CLOSED</b> 3-FCV-64-36, DW/SUPPR CI (Panel 9-3)	HBR VENT TO SGT
Standard:	
Operator verifies 3-FCV-64-36 is closed on Panel 9-3	
SAT UNSAT N/ACOMMENTS:	
**************************************	**************************** Critical X Not Critical
f. <b>VERIFY OPEN</b> the following dampers (Panel 9-2:	5):
• 3-FCO-64-40, REACTOR ZONE EXH TO	SGTS
• 3-FCO-64-41, REACTOR ZONE EXH TO	SGTS
Standard:	
Operator verifies dampers 3-FCO-64-40 and 3-FCO-64-41 a	re open on Panel 9-25
SAT UNSAT N/ACOMMENTS:	
**************************************	*******************************  Critical Not Critical X
g. <b>VERIFY CLOSED</b> 3-FCV-64-29, DRYWELL VE	
(Panel 9-3 or Panel 9-54).	SIVI INDU ISOLI VILLIVE
Standard:	
Operator verifies 3-FCV-64-29 is closed on Panel 9-3 or Pan	nel 9-54
SAT UNSAT N/ACOMMENTS:	

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*******	*****	*************************				
Performance	Step 11	: Critical _ Not Critical X				
h.	<b>DISI</b> follow	PATCH personnel to Unit 3 Auxiliary Instrument Room to perform the wing:				
	1)	<b>REFER TO</b> Attachment 1 and <b>OBTAIN</b> one 12-in. banana jack jumper from EOI Equipment Storage Box.				
	2)	LOCATE terminal strip DD in Panel 3-9-43, Front.				
	3)	<b>JUMPER</b> DD-76 to DD-77 (Panel 3-9-43).				
	4)	<b>NOTIFY</b> Unit Operator that jumper for 3-FCV-64-30, DRYWELL VENT OUTBD ISOLATION VLV, is in place.				
Standard:						
Oper	ator con	tacts an AUO or an extra operator to perform step h.1) thru h.4)				
SATUNS	SATUNSAT N/ACOMMENTS:					
		ontacted to perform step h.1) thru h.4) provide repeat back and inform r that the Jumper for 3-FCV-64-30 is in place				
*****	*****	***********************				
Performance	Step 12	<u>2:</u> Critical <u>X</u> Not Critical				
i. <b>VERIFY OPEN</b> 3-FCV-64-30, DRYWELL VENT OUTBD ISOLATION VLV (Panel 9-3).						
Standard:	•	(				
Oper	Operator opens 3-FCV-64-30 on panel 9-3					
SATUNS	SAT	N/ACOMMENTS:				

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Performance Step 13:	Critical X Not Critical
CAUT	ION
• The following step will fail ductwork inside Secondary Containment Integrity.	Secondary Containment and may fail
Off-Gas Release Rate Limits will be exceeded.	ed.
j. <b>PLACE</b> keylock switch 3-HS-84-36, SELECT, to DRYWELL (Panel 9-54	SUPPR CHBR/DW VENT ISOL BYP ).
Standard:	
Operator places keylock switch 3-HS-84-36 to	o the DRYWELL position
SAT UNSAT N/ACOMMENTS:	
**************	*************
Performance Step 14:	Critical _ Not Critical X
k. <b>VERIFY OPEN</b> 3-FCV-64-29, DRY (Panel 9-54).	WELL VENT INBD ISOL VALVE
Standard:	
Operator verifies that 3-FCV-64-29 opens on	Panel 9-54
SAT UNSAT N/ACOMMENTS:	

*********************************

JPM	d		
PAGE	11	OF	11

******************************
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## Performance Step 15:

Critical _ Not Critical X

- 1. **CHECK** Drywell and Suppression Chamber pressure lowering.
- m. **MAINTAIN** Primary Containment pressure below 55 psig using 3-FCV-64-29, DRYWELL VENT INBD ISOL VALVE, as directed by SRO.

## Standard:

Operator checks that Drywell and Suppression Chamber pressure are lowering and informs SRO that Emergency Venting of the Drywell is in progress

SAT_	_UNSAT_	N/A _	COMMENTS:_	
------	---------	-------	------------	--

CUE:

As SRO acknowledge report of emergency venting of Drywell in progress. JPM complete

**END OF TASK** 

STOP TIME____

OPERATOR:						
RO SRO _	DATE	):				
JPM NUMBER:	e					
TASK NUMBER:	U-085-SU-02					
TASK TITLE:	2-SR-3.3.2.1.2 RWM	Functional Test for Startup				
K/A NUMBER: 2010	06 A2.05	K/A RATING: RO 3.1 SRO 3.5				
TASK STANDARD:	Complete 2-SR-3.3.2.	1.2 RWM Functional Test for Startup				
LOCATION OF PER	FORMANCE: Simula	ator				
REFERENCES/PROG	CEDURES NEEDED:	2-SR-3.3.2.1.2 completed to step 7.0[1] Ensure 2-SR-3.1.3.5(A) is open to Group 1 rods				
VALIDATION TIME	: 15 minutes	Elisade 2-51(-5.1.5.5(A) is open to Group 1 rous				
MAX. TIME ALLOW	VED: (Completed for T	ime Critical JPMs only)				
PERFORMANCE TIME:						
COMMENTS:						
Additional comment s	heets attached? YES _	NO				
RESULTS: SATIS	FACTORY	UNSATISFACTORY				
SIGNATURE:	EVAMINED	DATE:				

10/0/11

**INITIAL CONDITIONS**: You are an Operator on Unit 2. Unit 2 is making preparations for startup using the A2 Startup Sequence. The RWM is in operation per 2-OI-85. Reactor Engineering has performed 2-SR-3.3.2.1.7.

**INITIATING CUES:** The Unit Supervisor has directed you to complete 2-SR-3.3.2.1.2, RWM Functional Test for Startup, a Reactor Engineer is present and monitoring as needed

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

*************************************

**INITIAL CONDITIONS**: You are an Operator on Unit 2. Unit 2 is making preparations for startup using the A2 Startup Sequence. The RWM is in operation per 2-OI-85. Reactor Engineering has performed 2-SR-3.3.2.1.7.

**INITIATING CUES:** The Unit Supervisor has directed you to complete 2-SR-3.3.2.1.2, RWM Functional Test for Startup, a Reactor Engineer is present and monitoring as needed

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****		***************************************	**************************************		
7.0		CEDURE S	<del>-</del> <del>-</del>		
,,,	[1] <b>VERIFY</b> that the following initial conditions are satisfied:				
		[1.1]	<b>ALL</b> precautions <b>AND</b> limitations in Section 3.0 have been reviewed.		
		[1.2]	ALL prerequisites in Section 4.0 are satisfied		
Stand	ard:				
	Revie	ews precaution	ons and limitations and verifies initial conditions are satisfied		
SAT_	UNS	SAT N/A	COMMENTS:		
****	*****	******	******************		
Perfo	rmance	Step 2:	Critical _ Not Critical X		
	[2]	OBTAIN test proce	I permission from Unit Supervisor (US) to perform this 2-SR-3.3.2.1.2 edure		
	[3]	[3] <b>NOTIFY</b> Unit Operator (UO) before commencing this 2-SR-3.3.2.1.2 test procedure.			
	[4] <b>RECORD</b> the start date <b>AND</b> time, reason for test, plant conditions <b>AND ANY</b> pre-test remarks on Attachment 1, Surveillance Procedure Review Form in Section 8.0.				
Stand	ard:				
	Alrea	ady complete	ed		
SAT_	SATUNSAT N/ACOMMENTS:				

JPM	е		
PAGE	5	OF	10

Performance Step 3:	Critical X Not Critical			
NOT	E			
ALL operations are performed on Panel 2-9-5 in t	he main Control Room unless otherwise noted.			
[5] PLACE the Control Rod Drive (CI momentarily to OFF AND next SW	,			
Standard:				
Places the CRD Power switch to OFF and	then ON			
SATUNSATN/ACOMMENTS:				
*************	************			
Performance Step 4:	Critical _ Not Critical X			
[6] VERIFY ALL control rods are des	selected on the rod select matrix.			
Standard:				
Verifies all control rods are deselected				
SATUNSAT N/ACOMMENTS:				

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Performance		**************************************
[7]	PERFOR	M the RWM Functional Test as follows:
	[7.1]	<b>VERIFY OR PLACE</b> the RWM in operation per 2-OI-85.
	[7.2]	<b>REQUEST</b> Reactor Engineering to <b>PERFORM</b> 2-SR-3.3.2.1.7 <b>OR VERIFY</b> performance of 2-SR-3.3.2.1.7.
Standard:		
Give	n in initial co	onditions
SATUNS	SATN/A	COMMENTS:
******** Performance		**************************************
	[7.3]	<b>REFER</b> to the Control Rod Movement Data Sheet from 2-SR-3.1.3.5(A) to identify a rod from RWM Group 02.
	[7.4]	<b>RECORD</b> below the rod chosen:
		Rod Number:
Standard:		
ANY control	l rod from R 3-39, 26-55,	1.3.5(A) and chooses a rod from Group 2, records identified rod (can be WM Group 2 (A2 Startup Sequence) – (02-31, 26-07, 58-23, 42-55, 10-10-23, 50-15, 50-47, 18-47, 18-15, 50-31, 34-47, 18-31, 34-15, 42-39, 44-31)
SATUNS	SATN/A	COMMENTS:

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<u>Performance Step 7:</u>	**************************************
*[7.5]	<b>SELECT</b> the rod recorded in Step 7.0[7.4].
[7.6]	<b>VERIFY</b> the SELECT ERROR status block on the RWM display is in alarm (red background).
Standard:	
Selects the rod previous	ously recorded and verifies select error in alarm
SAT UNSAT N/A	_COMMENTS:
********	********************
Performance Step 8:	*Critical X Not Critical
*[7.7]	<b>NOTCH</b> the selected rod to position 02.
[7.8]	<b>VERIFY</b> that the rod moved to position 02 is identified as a
Standard:	withdraw error on the RWM display.
Notches the rod to po	osition 02 and verifies a withdraw error on the display
SAT UNSAT N/A _	_COMMENTS:

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*********	************************
Performance Step 9:	*Critical X Not Critical
*[7.9]	<b>PLACE</b> the CRD Control switch (2-HS-85-48) to ROD OUT NOTCH <b>AND VERIFY</b> the following:
[7.9.1]	The selected control rod does <b>NOT</b> withdraw.
[7.9.2]	The WITHDRAW BLOCK status block on the RWM display is in alarm (red background).
[7.9.3]	RWM ROD BLOCK (2-XA-55-5B, Window 35) is in ALARM.
Standard:	
Verifies withdraw blo Block alarm 2-XA-55	ol switch to ROD OUT NOTCH and verifies rod does not withdraw. sck status block on RWM display is in alarm as well as RWM Rod 5-5B, window 35.  COMMENTS:
**************************************	**************************************
	TISERT the selected for from position 02 to 00.
Standard:	
Inserts the selected ro	d from position 02 to 00
SATUNSATN/A	COMMENTS:

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******* Performance		**************************************
remomance	3 Step 13.	Critical A Not Critical
`	*[7.15]	<b>SELECT</b> the rod recorded in Step 7.0[7.14].
	[7.16]	<b>VERIFY</b> that rod Group 01 is indicated as the latched group on the RWM Panel.
Standard:		
Selec	ets the rod reco	orded previously and verifies Group 1 is indicated as the latched group
SATUNS	SAT N/A _	COMMENTS:
•		
******* Performance		**************************************
1 CHOIMance	овер 14.	Critical _ Not Critical A
` [8]	Procedure 1	the appropriate test information on Attachment 1, Surveillance Review Form (located in Section 8.0) <b>AND COMPLETE</b> up to the visor review.
[9]	NOTIFY t	he UO that this SR test procedure is complete.
[10]	NOTIFY t	he US that this SR test procedure is complete.
Standard:		
Reco	ords test info o	n Attachment 1 up to US review and notifies personnel of completion
SAT UNS	SAT N/A	COMMENTS:
		END OF TASK
STOP TIM	E	

JPM e PAGE 1 OF 10

OPERATOR:		
RO SR	O DAT	E:
JPM NUMBER:	e	
TASK NUMBER	: U-085-SU-02	
TASK TITLE:	3-SR-3.3.2.1.2 RWN	M Functional Test for Startup
K/A NUMBER: 2	01006 A2.05	K/A RATING: RO 3.1 SRO 3.5
TASK STANDAR	RD: Complete 3-SR-3.3.2	2.1.2 RWM Functional Test for Startup
LOCATION OF F	PERFORMANCE: Simu	lator
REFERENCES/P. VALIDATION TI		: 3-SR-3.3.2.1.2 completed to step 7.0[1] Ensure 3-SR-3.1.3.5(A) is open to Group 1 rods
MAX. TIME ALL	OWED: (Completed for	Time Critical JPMs only)
PERFORMANCE	E TIME:	
Additional comme	ent sheets attached? YES	NO
RESULTS: SA	TISFACTORY	UNSATISFACTORY
	FXAMINER	DATE:

**INITIAL CONDITIONS**: You are an Operator on Unit 3. Unit 3 is making preparations for startup using the A2 Startup Sequence. The RWM is in operation per 3-OI-85. Reactor Engineering has performed 3-SR-3.3.2.1.7.

**INITIATING CUES:** The Unit Supervisor has directed you to complete 3-SR-3.3.2.1.2, RWM Functional Test for Startup, a Reactor Engineer is present and monitoring as needed

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

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**INITIAL CONDITIONS**: You are an Operator on Unit 3. Unit 3 is making preparations for startup using the A2 Startup Sequence. The RWM is in operation per 3-OI-85. Reactor Engineering has performed 3-SR-3.3.2.1.7.

**INITIATING CUES:** The Unit Supervisor has directed you to complete 3-SR-3.3.2.1.2, RWM Functional Test for Startup, a Reactor Engineer is present and monitoring as needed

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Perfo	Performance Step 1:		Critical _ Not Critical X
7.0	PROCEDURE STEPS [1] VERIFY that the follow		TEPS
			that the following initial conditions are satisfied:
		[1.1]	<b>ALL</b> precautions <b>AND</b> limitations in Section 3.0 have been reviewed.
		[1.2]	ALL prerequisites in Section 4.0 are satisfied
Stand	lard:		
	Revie	ews precautio	ns and limitations and verifies initial conditions are satisfied
SAT_	UNS	SATN/A	COMMENTS:
SAT_	UNS	SAT N/A	COMMENTS:
****		*****	COMMENTS:  ******************************
****	*****	******** Step 2:	**************************************
****	******	********  Step 2:  OBTAIN  test proced	**************************************
****	******  rmance  [2]	********  Step 2:  OBTAIN test proced  NOTIFY procedure.  RECORD	c*************************************
****	****** [2] [3] [4]	********  Step 2:  OBTAIN test proced  NOTIFY procedure.  RECORD pre-test rer	c*************************************
**** Perfo	****** [2] [3] [4]	********  Step 2:  OBTAIN test proced  NOTIFY procedure.  RECORD pre-test rer	Critical _ Not Critical X  permission from Unit Supervisor (US) to perform this 3-SR-3.3.2.1.2 lure  Unit Operator (UO) before commencing this 3-SR-3.3.2.1.2 test  the start date AND time, reason for test, plant conditions AND ANY marks on Attachment 1, Surveillance Procedure Review Form in ).

JPM	е		
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	NO	OTE
ALL operation	ions are performed on Panel 3-9-5 in	n the main Control Room unless otherwise noted
[5]	PLACE the Control Rod Drive (momentarily to OFF AND next S	CRD) POWER switch (3-HS-85-46) SWITCH to ON.
Standard:		
Place	es the CRD Power switch to OFF an	d then ON
SATUNS	SATN/ACOMMENTS:	
*****	*******	*********
		**************************************
	Step 4:	
Performance [6]	Step 4:	Critical _ Not Critical X
Performance [6] Standard:	Step 4:	Critical _ Not Critical X
Performance [6] Standard: Verif	Step 4:  VERIFY ALL control rods are of	Critical _ Not Critical X leselected on the rod select matrix.

		JPM e PAGE 6 OF 10
*******	*******	**********************
Performance	e Step 5:	Critical Not Critical X
[7]	PERFORM	M the RWM Functional Test as follows:
	[7.1]	<b>VERIFY OR PLACE</b> the RWM in operation per 3-OI-85.
	[7.2]	<b>REQUEST</b> Reactor Engineering to <b>PERFORM</b> 3-SR-3.3.2.1.7 <b>OR VERIFY</b> performance of 3-SR-3.3.2.1.7.
Standard:		
Give	en in initial con	nditions
SATUN	SATN/A	COMMENTS:
	118: 11.11	
******** Performance		**************************************
remormance	<u> </u>	Critical X Not Critical
	[7.3]	<b>REFER</b> to the Control Rod Movement Data Sheet from 3-SR-3.1.3.5(A) to identify a rod from RWM Group 02.
	[7.4]	<b>RECORD</b> below the rod chosen:
		Rod Number:
Standard:		
ANY contro	ol rod from RV	.3.5(A) and chooses a rod from Group 2, records identified rod (can be VM Group 2 (A2 Startup Sequence) – (02-31, 26-07, 58-23, 42-55, 10-0-23, 50-15, 50-47, 18-47, 18-15, 50-31, 34-47, 18-31, 34-15, 42-39,

SAT__UNSAT__ N/A __COMMENTS:____

26-39, 26-23, 42-23, or 34-31)

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******	******	************************
Performance Step 7:		*Critical X Not Critical
	*[7.5]	<b>SELECT</b> the rod recorded in Step 7.0[7.4].
	[7.6]	<b>VERIFY</b> the SELECT ERROR status block on the RWM display is in alarm (red background).
Standard:		
Selec	ets the rod pre	viously recorded and verifies select error in alarm
SATUNS	SATN/A	COMMENTS:
		·
		******************
Performance	Step 8:	*Critical <u>X</u> Not Critical
	*[7.7]	<b>NOTCH</b> the selected rod to position 02.
	[7.8]	<b>VERIFY</b> that the rod moved to position 02 is identified as a withdraw error on the RWM display.
Standard:		whithaw error on the Kwivi display.
Note	hes the rod to	position 02 and verifies a withdraw error on the display
SAT UNS	SATN/A	COMMENTS:

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********	*********************
Performance Step 9:	*Critical X Not Critical
*[7.9]	<b>PLACE</b> the CRD Control switch (3-HS-85-48) to ROD OUT NOTCH <b>AND VERIFY</b> the following:
[7.9.1]	The selected control rod does <b>NOT</b> withdraw.
[7.9.2]	The WITHDRAW BLOCK status block on the RWM display is in alarm (red background).
[7.9.3]	RWM ROD BLOCK (3-XA-55-5B, Window 35) is in ALARM.
Standard:	
Verifies withdraw block alarm 3-XA-55	ol switch to ROD OUT NOTCH and verifies rod does not withdraw. ck status block on RWM display is in alarm as well as RWM Rod -5B, window 35.
**************************************	**************************************
` [7.10]	<b>INSERT</b> the selected rod from position 02 to 00.
Standard:	
Inserts the selected roo	from position 02 to 00
SATUNSATN/A	COMMENTS:

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	ance Step 11:	**************************************
	[7.11]	<b>VERIFY</b> the WITHDRAW BLOCK status block on the RWM display is <b>NOT</b> in alarm.
	[7.12]	<b>VERIFY</b> RWM ROD BLOCK (3-XA-55-5B, Window 35) will RESET.
Standard	• •	
	Verifies the Withdlarm window 35	raw Block status block on the RWM display is not in alarm and resets on 3-XA-55-5B
SAT	UNSATN/A	COMMENTS:
*****	******	*******************
Performa	nce Step 12:	Critical X Not Critical
`	[7.13]	<b>REFER</b> to the Control Rod Movement Data Sheet from 3-SR-3.1.3.5(A) to identify a rod from RWM Group 01.
	[7.14]	<b>RECORD</b> below the rod chosen:
		Rod Number:
Standard	<u>:</u>	
A 5	ANY control rod: 5, 50-39, 19-07,	3.5(A) and chooses a rod from Group 1, records identified rod (can be from RWM Group 1 (A2 Startup Sequence) – (58-31, 34-07, 02-23, 18-02-39, 34-55, 50-23, 10-15, 10-47, 42-47, 42-15, 10-31, 26-47, 42-31, 39, 34-23, 18-23, or 26-31)
SAT	UNSAT N/A	COMMENTS:
	A.B	

JPM	е		
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and the second s

	****	*******	************************************
Perforn	nance (	Step 13:	*Critical X Not Critical
`		*[7.15]	<b>SELECT</b> the rod recorded in Step 7.0[7.14].
		[7.16]	<b>VERIFY</b> that rod Group 01 is indicated as the latched group of RWM Panel.
Standar	<u>:d:</u>		
	Select	s the rod recor	rded previously and verifies Group 1 is indicated as the latched group
SAT	UNS	AT N/A	COMMENTS:
			***************************************
<u>Pertorn</u>	nance (	Step 14:	Critical _ Not Critical X
`	[8]		he appropriate test information on Attachment 1, Surveillance leview Form (located in Section 8.0) <b>AND COMPLETE</b> up to the isor review.
	[9]	NOTIFY th	e UO that this SR test procedure is complete.
	[10]	NOTIFY th	e US that this SR test procedure is complete.
Standar	<u>:d:</u>		
	Recor	ds test info on	Attachment 1 up to US review and notifies personnel of completion
		AT NI/A	COMMENTS:
CAT	TIME		
SAT	UNS	A1N/A	COMMENTS
SAT	_ UNS.	A1IVA	END OF TASK
SAT	UNS	A1 IVA	

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OPERATO	R:		
RO	SRO_	DATE	::
JPM NUMI	BER:	f	
TASK NUM	MBER:	U-000-SS-26	
TASK TITI	LE:	Energize 4 KV	V SD BDs A and B from DGs
K/A NUMI	BER: 6000	000 AA2.17	K/A RATING: RO 3.1 SRO: 3.6
energize 4k	KV SD BD	3EA from 4K	energize 4KV SD BDs A and B from the Unit 1/2 DGs and V SD BD A. Operator will be required to perform an el Generator due to Low Lube Oil Pressure
LOCATIO	N OF PER	FORMANCE:	Simulator
REFEREN	CES/PRO	CEDURES NEI	EDED: 0-SSI-21
VALIDATI	ON TIME	20 minutes	
MAX. TIM	E ALLOV	VED: 20 minute 24 thru 28	es step 20, 20 minutes steps 22 thru 23, and 20 minutes steps 3
PERFORM	ANCE TI	ME:	
COMMEN	TS:	MANAGE AND THE STREET	
Additional	comment s	sheets attached?	YES NO
RESULTS:	SATIS	FACTORY	UNSATISFACTORY
SIGNATUE	RE:	FXAMINER	DATE:

**INITIAL CONDITIONS**: You are the Unit 2 Operator, there is a fire in Unit 3 DG Building, the plant is operating in 0-SSI-21, Unit 3 Diesel Generator Building. All three units have been scrammed. Operator 4 has completed Section 1.0 of Attachment 4, and alignment of 4KV Shutdown Board 3EA is complete and ready to be re-energized. An AUO is stationed at the Diesel Generators.

**INITIATING CUE**: The Unit Supervisor directs you as the Unit 2 Operator to complete steps 20 through 26 in section 2.0 of 0-SSI-21 Unit 3 Diesel Generator Building

**Time Critical** 

***********************************

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

*******************************

**INITIAL CONDITIONS**: You are the Unit 2 Operator, there is a fire in Unit 3 DG Building, the plant is operating in 0-SSI-21, Unit 3 Diesel Generator Building. All three units have been scrammed. Operator 4 has completed Section 1.0 of Attachment 4, and alignment of 4KV Shutdown Board 3EA is complete and ready to be re-energized. An AUO is stationed at the Diesel Generators.

**INITIATING CUE**: The Unit Supervisor directs you as the Unit 2 Operator to complete steps 20 through 26 in section 2.0 of 0-SSI-21 Unit 3 Diesel Generator Building

**Time Critical** 

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****	************************************			
(20 M	in)			
[20]	IF Diesel Generator A is <b>NOT</b> running and supplying its respective Board, <b>THEN DIRECT</b> Unit 2 Operator to start Diesel Generator A, AND re-energize 4KV Shutdown Board A as follows:			
	*[20.1]	<b>TRIP</b> the 4KV SD BD A AUTO/LOCKOUT RESET switch by momentarily depressing the 4KV SD BD A AUTO TO MANUAL TRushbutton, 0-HS-211-A on Panel 0-9-23-7.	RIP	
	[20.1.]	CHECK that 4KV SD BD A AUTO TO MANUAL TRIP, 0-HS-211-A, amber light extinguished.		
	[20.1.2	CHECK that 4KV SD BD A AUTO/LOCKOUT RESET, 0-43-211-A, trips.		
Standa	ard:			
	Depresses the lockout trips.	4KV SD BD A AUTO TO MANUAL TRIP pushbutton and verifies		
SAT_	_UNSAT1	J/ACOMMENTS:		
ale ale ale ale ale				
	mance Step 2:	**************************************		
	[20.2] <b>PLACE</b> 4KV SD BD A ALT FDR BKR 1716 control switch 0-HS-211-A/24A, in TRIP on Panel 0-9-23-7.			
Standa	ard:			
	Trips Alternate	e Feeder Breaker 1716		
SAT_	_UNSAT1	N/ACOMMENTS:		

	JPM f PAGE 5 OF 12
***************	***********
Performance Step 3:	Critical_ Not Critical X
[20.3] PLACE 4KV SD BD A EMER FDR BK in TRIP on Panel 0-9-23-7.	KR 1824 control switch 0-HS-211-A/4A
Standard:	
Trips Emergency Feeder Breaker 1824	
SAT UNSAT N/ACOMMENTS:	
**************************************	**************************************
[20.4] <b>PLACE</b> 4KV SD BD A NORM FDR BI in TRIP on Panel 0-9-23-7.	KR 1614 control switch 0-HS-211-A/3A,
Standard:	
Trips Normal Feeder Breaker 1614	
SATUNSAT N/ACOMMENTS:	
**************************************	**************************************
[20.5] <b>VERIFY</b> DIESEL GENERATOR A star 0-HS-211-A/22A, closed to re-energize	•
Standard:	
Verifies DG A starts and DG A Breaker 1818 clo	ses
SAT UNSAT N/ACOMMENTS:	

STOP TIME ___

JPM f PAGE 6 OF 12

STAR	TTIME		
****	****************	******	******
Perfor	mance Step 6:	Critical_	_ Not Critical <u>X</u>
(20 M	in)		
[21]	<b>VERIFY</b> with Unit 3 Unit Supervisor that Operator 4. Attachment 4, and alignment of 4KV Shutdown Board re-energized.		
Standa	ard:		
	Given in initial conditions		
SAT_	_UNSATN/ACOMMENTS:		
STOP	TIME		

	T TIME *******************************
Performance (20 M	*Critical X Not Critical n)
[22]	<b>DIRECT</b> Unit 2 Operator to align 4KV Shutdown Board A to Shutdown Board 3EA, AND <b>PERFORM</b> the following at Panel 0-9-23:
	*[22.1] <b>PLACE</b> 4KV SDBD A BKR 1824 SYNC switch, 0-25-211-A/4A, to ON.
	*[22.2] <b>PLACE</b> 4KV SD BD A EMER FDR BKR 1824, in CLOSE, 0-HS-211-A/4A, AND <b>VERIFY</b> breaker closes.
	[22.3] PLACE 4kV SD BD A BKR 1824 SYNC switch, 0-25-211-A/4A, to OFF.
Standa	<u>rd:</u>
BKR 1 to off	Places 4KV SDBD A BKR 1824 SYNC switch to on, Places 4KV SDBD A EMER FDR 824 in close and verifies breaker closes, and Places 4KV SDBD A BKR 1824 SYNC switch
SAT_	_UNSATN/ACOMMENTS:
****	**************************************
Perfor	mance Step 8: Critical Not Critical X
[23]	<b>DIRECT</b> Unit 2 Operator to verify the following stopped at Panel 2-9-3:
	A. CORE SPRAY PUMP 2A, 2-HS-75-5A B. RHR PUMP 2A, 2-HS-74-5A C. RHRSW PUMP A2, 0-HS-23-5A/2
Standa	<u>rd:</u>
	Verifies the components listed above are stopped
SAT_	_UNSATN/ACOMMENTS:
STOP	TIME

STAR	T TIME	<del></del>	
****	*****	**********	*************
Performance Step 9: *Critical X Not Critical (20 Min)			
[24]	IF Diesel Generator B is <b>NOT</b> running and supplying its respective Board, <b>THEN DIRECT</b> Unit 2 Operator to start Diesel Generator B, AND <b>RE-ENERGIZE</b> 4KV Shutdown Board B as follows:		
	*[24.1]		AUTO/LOCKOUT RESET switch by e 4KV SD BD B AUTO TO MANUAL TRIP on Panel 0-9-23-7.
	[24.1.]	CHECK that 4KV 211-B, amber light	SD BD B AUTO TO MANUAL TRIP, 0-HS-extinguished.
	[24.1.2	CHECK that 4KV 211-B, trips.	SD BD B AUTO/LOCKOUT RESET, 0-43-
Standa	ard:		
	Depresses the lockout trips.	4KV SD BD B AUTO TO	MANUAL TRIP pushbutton and verifies
SAT_	UNSAT1	V/ACOMMENTS:	
		*********	**************************************
<u>F 61101</u>	mance Step 10:		Critical Not Critical X
[24.2] PLACE 4KV SD BD B ALT FDR BKR 1714 control switch, 0-HS-211-B/20A, in TRIP on Panel 0-9-23-7.			
Standa	ard:		
	Trips Alternate	e Feeder Breaker 1714	
SAT_	_UNSAT1	N/ACOMMENTS:	

JPM f PAGE 9 OF 12

****************	**************
Performance Step 11:	Critical X Not Critical
[24.3] <b>PLACE</b> 4KV SD BD B NORM F in TRIP on Panel 0-9-23-7.	DR BKR 1616 control switch, 0-HS-211-B/2A,
Standard:	
Trips Normal Feeder Breaker 1616	
SATUNSATN/ACOMMENTS:	
**************************************	**************************************
[24.4] <b>PLACE</b> 4KV SD BD B EMER FI in TRIP on Panel 0-9-23-7.	OR BKR 1828 control switch, 0-HS-211-B/19A
Standard:	
Trips Emergency Feeder Breaker 1828	
SATUNSAT N/ACOMMENTS:	
**************************************	**************************************
[24.5] <b>VERIFY</b> DIESEL GENERATOR B/4A, closed to re-energize 4KV S	B started, and DG B BKR 1822, 0-HS-211-Shutdown Board B.
Standard:	
Verifies DG B starts and DG B Breaker 18	22 closes
SATUNSAT N/ACOMMENTS:	

# DRIVER: after DG is started enter BAT NRC/DGBlowlube for Low Lube Oil Pressure

RMAL will alarm and LOW or should respond per the ARP.
********
Critical _ Not Critical X
OIL ABNORMAL) and
lit.
*********
Critical $_$ Not Critical $\underline{X}$
il pressure light is illuminated.

SAT__UNSAT__ N/A __COMMENTS:

CUE: If asked, continued operation of DG D is not abso	olutely necessary.
****************	**********
Performance Step 16:	Critical _ Not Critical X
DIESEL GEN 3D LUBE OIL ABNORMAL Window 4	
B. <b>DISPATCH</b> personnel to diesel generator ro	oom to check:
Standard:	
Contacts personnel in DG Room	
SAT UNSAT N/ACOMMENTS:	
CUE: If asked, continued operation of DG D is not abso	olutely necessary.
CUE: If Assistant Unit Operator is called, <u>After Lube of</u> 9-23, report lube oil pressure low at 5 psig and lowering, damaged coupling	
***************	**********
Performance Step 17:	Critical X Not Critical
DIESEL GEN 3D LUBE OIL ABNORMAL Window 4	
C. <b>SHUT DOWN</b> the diesel generator with Emenecessary.	ergency Stop Pushbutton, if
Standard:	
Operator depresses Emergency Stop Pushbutton	
SAT UNSAT N/ACOMMENTS:	
CUE: Another operator will complete the remainder of	of the procedure, JPM complete

If the operator fails to shutdown DG B he will continue to step 25 and 26 in procedure.

JPM	f		
PAGE	12	OF	12

**************************************		**************************************
[25] <b>DIRECT</b> Unit 2 Operator to verify the following stopped a	t Panel 2-9	9-3:
A. CORE SPRAY PUMP 2C, 2-HS-75-14A B. RHR PUMP 2C, 2-HS-74-16A C. RHRSW PUMP C2, 0-HS-23-12A/2		
Standard:		
Verifies the components listed above are stopped		
SATUNSAT N/ACOMMENTS:		
1		
**************************************		**************************************
[26] <b>DIRECT</b> Unit 2 Operator to verify CONTROL BAY CHII 0-HS-31-2100A, stopped at Panel 2-9-20.	LER A,	
Standard:		
Verifies the component listed above is stopped		
SAT UNSAT N/ACOMMENTS:		
CUE: Another operator will complete the remainder of the p	procedure, .	JPM complete .
END OF TASK STOP TIME		

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OPERATOR:	
RO SRO _	DATE:
JPM NUMBER:	g
TASK NUMBER:	U-000-EM-61
TASK TITLE:	2-EOI Appendix-12 Primary Containment Venting
K/A NUMBER: 2950	017 AA1.03 K/A RATING: RO 3.4 SRO: 3.4
TASK STANDARD:	Vent Primary Containment IAW 2-EOI Appendix-12, after Suppression Chamber Vent path fails will vent through Drywell and flow adjusted to limit high release rates.
LOCATION OF PER	FORMANCE: Simulator
REFERENCES/PRO	CEDURES NEEDED: 2-EOI Appendix-12
VALIDATION TIME	: 7 minutes
MAX. TIME ALLOW	VED:
PERFORMANCE TI	ME:
Additional comment s	sheets attached? YES NO
RESULTS: SATIS	FACTORY UNSATISFACTORY
SIGNATURE:	DATE: EXAMINER

**INITIAL CONDITIONS:** You are a Unit 2 Operator. Unit 2 reactor has scrammed. A small leak exists in primary containment. EOI-2 has been followed to PC/P-1.

**INITIATING CUE:** The Unit Supervisor directs you to vent the pressure suppression chamber in accordance with 2-EOI Appendix-12.

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

**INITIAL CONDITIONS:** You are a Unit 2 Operator. Unit 2 reactor has scrammed. A small leak exists in primary containment. EOI-2 has been followed to PC/P-1.

**INITIATING CUE:** The Unit Supervisor directs you to vent the pressure suppression chamber in accordance with 2-EOI Appendix-12.

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\$TARTTIME_ ************************************	*********	
Performance Step 1: Critical _ Not Critical		
<b>CAUTION</b> Stack release rates exceeding 1.4 x 10τ μCi/s, or 0-SI-4.8.B.1.a.1 result in ODCM release limits being exceeded.	release fraction above 1.0 will	
1. <b>VERIFY</b> at least one SGTS train in service.		
Standard:		
Verifies SGTS in service		
SATUNSAT N/ACOMMENTS:		
*************************************  Performance Step 2:  2. VERIFY CLOSED the following valves (Panel 2-9-3 or 1)	Critical _ Not Critical X	
<ul> <li>2-FCV-64-31, DRYWELL INBOARD ISOLATIO</li> <li>2-FCV-64-29, DRYWELL VENT INBD ISOL VA</li> <li>2-FCV-64-34, SUPPR CHBR INBOARD ISOLAT</li> <li>2-FCV-64-32, SUPPR CHBR VENT INBD ISOL</li> </ul>	LVE, TION VLV,	
Standard:		
Verifies closed the above listed valves		
SATUNSAT N/ACOMMENTS:		

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			JPM g	OF 16

		_	AGE 5 OF 10
****	**********************	*****	******
Perfor	mance Step 3:	ritical _	Not Critical X
3.	IF While executing this procedure to vent the Suppression Chawater level can not be determined to be below 20 ft, THEN PI the vent path and reenter this procedure if further venting is re-	ERFO	RM step 13 to secure
Standa	ard:		
	Verifies Suppression Pool Level below 20 feet		
SAT_	_ UNSAT N/ACOMMENTS:		
	**************************************		**************  Not Critical <u>X</u>
4.	IF While executing this procedure, the desired vent path is lost THEN <b>PERFORM</b> step 13 to secure the vent path and reenter venting is required.		
Standa	ard:		
	NA		
SAT_	UNSAT N/ACOMMENTS:		
	**************************************		**************************************
5.	IF While executing this procedure, CAD addition per SAMG-2 begin, THEN BEFORE CAD is initiated, <b>PERFORM</b> Step 13		
Standa	ard:		
	NA		
SAT_	UNSAT N/ACOMMENTS:		
CUE	: CAD addition is not required		

JPM	g		
PAGE	6	OF	16

*****************************

Performance Step 6:

Critical Not Critical X

NOTE: Venting may be accomplished using EITHER:

• 2-FIC-84-19, PATH B VENT FLOW CONT,

OR

• 2-FIC-84-20, PATH A VENT FLOW CONT.

NOTE: Unless the TSC recommends otherwise, venting the Drywell DIRECTLY should be performed ONLY if the Suppression Chamber can NOT be vented.

- 6. IF ANY of the following exists:
  - Suppression Pool water level can not be determined to be below 20 ft,

OR

• Suppression Chamber can NOT be vented,

OR

• SRO orders DIRECT drywell venting,

THEN CONTINUE in this procedure at:

• Step 10 to vent the Drywell through 2-FCV-84-19,

OR

• Step 11 to vent the Drywell through 2-FCV-84-20.

Stand	larc	l:

	Verifies Suppression Pool Level below 20 feet and proceeds to step 7						
SAT_	_UNSAT	_ N/A _	_COMMENTS:				

JPM	g		
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	<ul> <li>ONTINUE in this procedure at:</li> <li>Step 8 to vent the Suppression Ch</li> <li>OR</li> <li>Step 9 to vent the Suppression Ch</li> </ul>	-
	• Step 8 to vent the Suppression Ch OR	-
Standard:	OR	-
Standard:	• Step 9 to vent the Suppression Ch	namber through 2-FCV-84-20.
Standard:		
C	ontinues at Step 8 or 9	
SATU	JNSAT N/ACOMMENTS:	
NRC:	Step 8 starts below, Step 9 starts	at performance step 13
******	***********	**************
Performa	nce Step 8:	Critical X Not Critical
	ENT the Suppression Chamber using 2 llows:	2-FIC-84-19, PATH B VENT FLOW CONT, as
a.	PLACE keylock switch 2-HS-84 SELECT, to SUPPR-CHBR positions	-35, SUPPR CHBR/DW VENT ISOL BYP tion (Panel 2-9-54).
Standard:		
	aced 2-HS-84-35 in the SUPPR-CHBR	l position
P		•
P	aced 2-HS-84-35 in the SUPPR-CHBR	•
8. <b>V</b>	ENT the Suppression Chamber using 2 llows:	2-FIC-84-19, PATH B VENT FLOW CONT, as

JPM	g		
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******	***********	*****************
Performance S	Step 9:	Critical _ Not Critical X
b.	<b>VERIFY OPEN</b> 2-FCV-64-32, SUI (Panel 2-9-54).	PPR CHBR VENT INBD ISOL VALVE
Standard:		
2-FC\ 2-FIC-84-20 \$		s to Vent the Suppression Chamber using
SATUNS	ATN/ACOMMENTS:	
******	***********	*************
Performance S	Step 10:	Critical X Not Critical
9. <b>VEN</b> follow	* *	IC-84-20, PATH A VENT FLOW CONT, as
a.	<b>VERIFY OPEN</b> 2-FCV-64-141, DI (Panel 2-9-3).	RYWELL DP COMP BYPASS VALVE
Standard:		
Opens	s 2-FCV-64-141	
SATUNS	ATN/ACOMMENTS:	

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Performance Step 1		***********************************  Critical $\underline{X}$ Not Critical
	ACE keylock switch 2-HS ECT, to SUPPR-CHBR I	5-84-36, SUPPR CHBR/DW VENT ISOL BYP position (Panel 2-9-54).
Standard:		
Placed 2-HS	S-84-36 in the SUPPR-CI	HBR position
SATUNSAT	_ N/ACOMMENTS:_	
**************************************		**************************************
	RIFY OPEN 2-FCV-64-3 nel 2-9-54).	34, SUPPR CHBR INBOARD ISOLATION VLV
Standard:		
Verifies 2-F	CV-64-34 Open	
SATUNSAT	_ N/ACOMMENTS:_	
******	*********	***************
Performance Step 1	<u>3:</u>	Critical $_$ Not Critical $\underline{X}$
	RIFY 2-FIC-84-20, PATH scfm (Panel 2-9-55).	HA VENT FLOW CONT, in AUTO with setpoint at
Standard:		
Places 2-FIC	C-84-20 in Auto at 100 SC	CFM
SATUNSAT	_ N/ACOMMENTS:_	

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********************************

# Performance Step 14:

Critical _ Not Critical X

- e. **PLACE** keylock switch 2-HS-84-20, 2-FCV-84-20 ISOLATION BYPASS, in BYPASS (Panel 2-9-55).
- 4. IF While executing this procedure, the desired vent path is lost or cannot be established, THEN **PERFORM** step 13 to secure the vent path and re-enter this procedure if further venting is required.

#### Standard:

	2-FCV-84-2	20 will fa	nil to Open, Operator proceeds to Step 4 which directs Step 13	
SAT_	_UNSAT	_ N/A _	_COMMENTS:	

CUE: SRO Directs Drywell venting

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and the second of the second o

*****	*********	******************
Perform	nance Step 15:	Critical _ Not Critical X
13.	WHEN ANY of the following	exists:
	<ul> <li>Venting is no longer</li> <li>Pressure in the space</li> <li>Directed by SRO,</li> <li>OR</li> <li>Directed by Step 3, 4</li> </ul>	being vented approaches zero,
	THEN SECURE venting as for	ollows:
	a. <b>VERIFY</b> the following	g keylock switches in OFF (Panel 2-9-54):
		CHBR / DW VENT ISOL BYP SELECT, CHBR / DW VENT ISOL BYP SELECT.
Standar	<u>d:</u>	
	Operator places 2-HS-84-35 ar	nd 36 in Off
SAT	UNSATN/ACOMMI	ENTS:
	**************************************	**************************************
	b. <b>VERIFY</b> keylock swit NORMAL (Panel 2-9-	ch 2-HS-84-20, 2-FCV-84-20 ISOLATION BYPASS, in 55).
Standar	<u>d:</u>	
	Places 2-HS-84-20 to Normal	
SAT	UNSATN/ACOMMI	ENTS:

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•	************	**********	******
<u>Performance</u>	<u>Step 17:</u>	Critical _	Not Critical X
c.	<b>VERIFY</b> keylock switch 2-HS-84-19, 2 in CLOSE (Panel 2-9-55).	2-FCV-84-19 CONTR	OL,
Standard:			
Verif	ies 2-HS-84-19 is in Close		
SATUNS	ATN/ACOMMENTS:		
******* Performance	**************************************		**************************************
	<del></del>		Trot official <u>11</u>
d.	VERIFY CLOSED the following valv	res (Panel 2-9-3 or Par	nel 2-9-54):
	<ul> <li>2-FCV-64-31, DRYWELL INBD ISO</li> <li>2-FCV-64-29, DRYWELL VENT INE</li> <li>2-FCV-64-34, SUPPR CHBR INBD ISO</li> <li>2-FCV-64-32, SUPPR CHBR VENT ISO</li> </ul>	BD ISOL VALVE, SOLATION VLV,	
Standard:			
Verif	ies above listed valves are closed		
SATUNS	ATN/ACOMMENTS:		
*******	***********	********	******
Performance	<u>Step 19:</u>	Critical _	Not Critical X
e.	<b>VERIFY CLOSED</b> 2-FCV-64-141, Di (Panel 2-9-3).	RYWELL DP COMP	BYPASS VALVE
Standard:			
Verif	ies closed 2-FCV-64-141		
SATUNS	ATN/ACOMMENTS:		
CUE	SRO Directs Drywell venting		

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****	*****	*****	******	*******	********
Perfor	mance S	Step 20:			Critical X Not Critical
10.	VENT	$\Gamma$ the Drywell	using 2-FIC-84-	19, PATH B VENT FI	LOW CONT, as follows:
	a.	VERIFY C (Panel 2-9-3		-64-141, DRYWELL D	OP COMP BYPASS VALVE
Standa	ard:				
	Verify	Closed 2-FC	V-64-141		
SAT_	_ UNS	AT N/A _	_COMMENTS:		
	****** mance S		******	*******	**************************************
	b.	•		S-84-36, SUPPR CHB sition (Panel 2-9-54).	R/DW VENT ISOL BYP
Standa	ard:				
	Placed	l 2-HS-84-36	in the DRYWEI	LL position	
SAT_	_ UNS	AT N/A _	_COMMENTS:		
	****** mance S		*******	********	**************************************
	c.	<b>VERIFY O</b> 2-9-54).	<b>PEN</b> 2-FCV-64-	-29, DRYWELL VENT	Γ INBD ISOL VALVE (Panel
Standa	ard:				
	Verifie	es 2-FCV-64-	29 Opens		•
SAT_	_ UNS	AT N/A _	_COMMENTS:		
			-		

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	*******************************
Performance Step 23:	Critical X Not Critical
d. <b>PLACE</b> 2-FIC-84-19, PATH 100 scfm (Panel 2-9-55).	B VENT FLOW CONT, in AUTO with setpoint at
Standard:	
Places 2-FIC-84-19 in Auto at 100 SC	FM
SAT UNSAT N/ACOMMENTS:_	
	**************
Performance Step 24:	Critical $\underline{X}$ Not Critical
e. <b>PLACE</b> keylock switch 2-HS 2-9-55).	-84-19, 2-FCV-84-19 CONTROL, in OPEN (Panel
Standard:	
Places 2-HS-84-19 in Open	
SATUNSATN/ACOMMENTS:_	
***********	**************
Performance Step 25:	Critical Not Critical X
f. <b>VERIFY</b> 2-FIC-84-19, PATH approximately 100 scfm.	I B VENT FLOW CONT, is indicating
g. <b>CONTINUE</b> in this procedu	re at step 12.
Standard:	
Verifies 2-FIC-84-19 is indicating app	roximately 100 scfm and continues at step 12
SATUNSATN/ACOMMENTS:_	

JPM	g		
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Performance Step 26:

Critical Not Critical X

- 12. **ADJUST** 2-FIC-84-19, PATH B VENT FLOW CONT, as applicable, to maintain ALL of the following:
  - Stable flow as indicated on controller,

**AND** 

- 2-PA-84-21, VENT PRESS TO SGT HIGH, alarm light extinguished, **AND**
- Release rates as determined below:
  - i. IF PRIMARY CONTAINMENT FLOODING per C-1, Alternate Level Control, is in progress, THEN **MAINTAIN** release rates below those specified in Attachment 2.
  - ii. IF Severe Accident Management Guidelines are being executed,
     THEN MAINTAIN release rates below those specified by the TSC SAM Team.
  - iii. IF Venting for ANY other reason than items i or ii above, THEN MAINTAIN release rates below
    - Stack release rate of 1.4 x 107  $\mu$ Ci/s **AND**
    - 0-SI-4.8.B.1.a.1 release fraction of 1.

# Standard:

	Request rele	ease rate	s from Log AUO		
SAT_	_UNSAT	_ N/A _	_COMMENTS:	 	 
-					

CUE: Primary Containment Flooding and SAMG are not being executed

CUE: When Release rates are requested report a Stack Release Rate of 1.6 x  $10^7 \,\mu\text{Ci/s}$  and release fraction of .95

JPM	g		
PAGE	16	OF	16

*****	************	*****************
Performance St	ep 27:	Critical $\underline{X}$ Not Critical
REDUCE ven	t flow to obtain acceptable release rate	e/fraction readings.
Standard:		
Recogn	ized exceeding Release Rate Limit of	$1.4 \times 10^7 \mu\text{Ci/s}$ and adjusted 2-FIC-84-19
SATUNSA	TN/ACOMMENTS:	
CUE:	If Flow is reduced report a new Stacrelease fraction of .85	ck Release Rate of <b>1.3 x 10⁷ μCi/s and</b> a
STOP TIME	recease maction of .83	

END OF TASK

OPERATOR:		
RO SRO _	DATE:	
JPM NUMBER:	g	
TASK NUMBER:	U-000-EM-61	
TASK TITLE:	3-EOI Appendix-12 Primary Containment Venting	
K/A NUMBER: 2950	017 AA1.03 K/A RATING: RO 3.4 SRO: 3.4	
TASK STANDARD:	: Vent Primary Containment IAW 3-EOI Appendix-12, Chamber Vent path fails will vent through Drywell an limit high release rates.	
LOCATION OF PERI	RFORMANCE: Simulator	
REFERENCES/PROC	CEDURES NEEDED: 3-EOI Appendix-12	
VALIDATION TIME	E: 7 minutes	
MAX. TIME ALLOW	WED:	
PERFORMANCE TIME	IME:	
COMMENTS:		
Additional comment s	sheets attached? YES NO	
RESULTS: SATIS	SFACTORY UNSATISFACTORY	
	DATE:	

**INITIAL CONDITIONS:** You are a Unit 2 Operator. Unit 3 reactor has scrammed. A small leak exists in primary containment. EOI-2 has been followed to PC/P-1.

**INITIATING CUE:** The Unit Supervisor directs you to vent the pressure suppression chamber in accordance with 3-EOI Appendix-12.

**IN-SIMULATOR:** I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect", if applicable). When you have completed your assigned task, you will say, "my task is complete" and I will acknowledge that your task is complete.

***********************************

**INITIAL CONDITIONS:** You are a Unit 3 Operator. Unit 2 reactor has scrammed. A small leak exists in primary containment. EOI-2 has been followed to PC/P-1.

**INITIATING CUE:** The Unit Supervisor directs you to vent the pressure suppression chamber in accordance with 3-EOI Appendix-12.

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<b>START TIME_</b> ************************************	*************	
Performance Step 1:	Critical _ Not Critical X	
CAUTION Stack release rates exceeding 1.4 x 10τ μCi/s, or result in ODCM release limits being exceeded.		
1. <b>VERIFY</b> at least one SGTS train in service.		
Standard:		
Verifies SGTS in service		
SAT UNSAT N/ACOMMENTS:	•	
**************************************	Critical _ Not Critical X	
<ul> <li>3-FCV-64-31, DRYWELL INBO</li> <li>3-FCV-64-29, DRYWELL VENT</li> <li>3-FCV-64-34, SUPPR CHBR INI</li> <li>3-FCV-64-32, SUPPR CHBR VE</li> </ul>	TINBD ISOL VALVE, BOARD ISOLATION VLV,	
Standard:	•	
Verifies closed the above listed valves		
SATUNSATN/ACOMMENTS:		

JPM	g		
PAGE	5	OF	16

	PAGE 5 OF 16
****	*************************
<u>Perfor</u>	mance Step 3: Critical Not Critical X
3.	IF While executing this procedure to vent the Suppression Chamber, Suppression Pool water level can not be determined to be below 20 ft, THEN <b>PERFORM</b> step 13 to secure the vent path and reenter this procedure if further venting is required.
Standa	ard:
	Verifies Suppression Pool Level below 20 feet
SAT_	_ UNSAT N/ACOMMENTS:
	**************************************
4.	IF While executing this procedure, the desired vent path is lost or can not be established, THEN <b>PERFORM</b> step 13 to secure the vent path and reenter this procedure if further venting is required.
Standa	ard:
	NA
SAT_	UNSAT N/ACOMMENTS:
****	************************************
Perfor	mance Step 5: Critical X
5.	IF While executing this procedure, CAD addition per SAMG-2, Step G-4 OR G-9, is to begin, THEN BEFORE CAD is initiated, <b>PERFORM</b> Step 13 to secure the vent path.
Standa	ard:
	NA
SAT_	_ UNSAT N/ACOMMENTS:
CUE	E: CAD addition is not required
	A Crip addition is not required

$\mathtt{JPM}$	g		
PAGE	6	OF	16

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Performance Step 6:

Critical Not Critical X

NOTE: Venting may be accomplished using EITHER:

• 3-FIC-84-19, PATH B VENT FLOW CONT,

OR

• 3-FIC-84-20, PATH A VENT FLOW CONT.

NOTE: Unless the TSC recommends otherwise, venting the Drywell DIRECTLY should be performed ONLY if the Suppression Chamber can NOT be vented.

- 6. IF ANY of the following exists:
  - Suppression Pool water level can not be determined to be below 20 ft,

OR

• Suppression Chamber can NOT be vented,

OR

• SRO orders DIRECT drywell venting,

THEN CONTINUE in this procedure at:

• Step 10 to vent the Drywell through 3-FCV-84-19,

OR

• Step 11 to vent the Drywell through 3-FCV-84-20.

Standa	ard:

	verifies Su	ppressio	n Pool Level below.	20 feet and pro	ceeds to step	/	
SAT_	_UNSAT	_ N/A _	COMMENTS:				

$\mathtt{JPM}$	g			
PAGE	7	OF	16	

****	*****************	*******	******
Perfor	mance Step 7:	Critical _	Not Critical X
7.	CONTINUE in this procedure at:		
	• Step 8 to vent the Suppression Chamber through <b>OR</b>	a 3-FCV-84-1	9,
	• Step 9 to vent the Suppression Chamber through	3-FCV-84 <b>-</b> 2	0.
Standa	nrd:		
	Continues at Step 8 or 9		
SAT_	_UNSATN/ACOMMENTS:		
NRC	: Step 8 starts below, Step 9 starts at performance	e step 13	
****	****************	******	· *******
	**************************************		****************
		Critical 2	✓ Not Critical
Perfor	wance Step 8:  VENT the Suppression Chamber using 3-FIC-84-19, PA	Critical <u>&gt;</u> ATH B VENT HBR/DW VE	∑ Not Critical  □ FLOW CONT, as
Perfor	<ul> <li>WENT the Suppression Chamber using 3-FIC-84-19, Particle follows:</li> <li>a. PLACE keylock switch 3-HS-84-35, SUPPR CS SELECT, to SUPPR-CHBR position (Panel 3-9).</li> </ul>	Critical <u>&gt;</u> ATH B VENT HBR/DW VE	∑ Not Critical  □ FLOW CONT, as
Perform 8.	<ul> <li>WENT the Suppression Chamber using 3-FIC-84-19, Particle follows:</li> <li>a. PLACE keylock switch 3-HS-84-35, SUPPR CS SELECT, to SUPPR-CHBR position (Panel 3-9).</li> </ul>	Critical <u>&gt;</u> ATH B VENT HBR/DW VE	∑ Not Critical  □ FLOW CONT, as
Performance 8.	<ul> <li>WENT the Suppression Chamber using 3-FIC-84-19, Particle follows:</li> <li>a. PLACE keylock switch 3-HS-84-35, SUPPR CSELECT, to SUPPR-CHBR position (Panel 3-9-9)</li> </ul>	Critical <u>&gt;</u> ATH B VENT HBR/DW VE -54).	☑ Not Critical  □ FLOW CONT, as  □ ENT ISOL BYP
Performance 8.	WENT the Suppression Chamber using 3-FIC-84-19, Parfollows:  a. PLACE keylock switch 3-HS-84-35, SUPPR Caseler, to SUPPR-CHBR position (Panel 3-9) ard:  Placed 3-HS-84-35 in the SUPPR-CHBR position	Critical <u>&gt;</u> ATH B VENT HBR/DW VE -54).	☑ Not Critical  □ FLOW CONT, as  □ ENT ISOL BYP
Performance 8.	WENT the Suppression Chamber using 3-FIC-84-19, Parfollows:  a. PLACE keylock switch 3-HS-84-35, SUPPR Caseler, to SUPPR-CHBR position (Panel 3-9) ard:  Placed 3-HS-84-35 in the SUPPR-CHBR position	Critical <u>&gt;</u> ATH B VENT HBR/DW VE -54).	☑ Not Critical  □ FLOW CONT, as  □ ENT ISOL BYP

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	JPM g PAGE 8 OF 16

<u>Perfo</u>	rmance	<u>Step 9:</u>	Critical Not Critical X		
	b.	<b>VERIFY OPEN 3-</b> FCV-64-32, (Panel 3-9-54).	SUPPR CHBR VENT INBI	O ISOL VALVE	
Stanc	dard:				
3-FIC	3-FC C-84-20	V-64-32 fails to open Operator proc Step 9.	eeds to Vent the Suppression	n Chamber using	
SAT	UNS	SATN/ACOMMENTS:			
		**************************************		$\frac{X}{X}$ Not Critical	
	vEN follow	Step 10:  T the Suppression Chamber using two:	Critical 3-FIC-84-20, PATH A VEN	X Not Critical	
Perfo	ormance VEN	Step 10:  T the Suppression Chamber using 3	Critical 3-FIC-84-20, PATH A VEN	X Not Critical	
<u>Perfo</u>	VEN follow a.	Step 10:  T the Suppression Chamber using two:  VERIFY OPEN 3-FCV-64-141	Critical 3-FIC-84-20, PATH A VEN	X Not Critical	
Perfo 9.	VEN follow a.	Step 10:  T the Suppression Chamber using two:  VERIFY OPEN 3-FCV-64-141	Critical 3-FIC-84-20, PATH A VEN	X Not Critical	
Perfo 9.	VEN follow a.  dard: Open	Step 10:  T the Suppression Chamber using a ws:  VERIFY OPEN 3-FCV-64-141 (Panel 3-9-3).	Critical 3-FIC-84-20, PATH A VEN , DRYWELL DP COMP BY	X Not Critical IT FLOW CONT, YPASS VALVE	

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Performance Step 11:	Critical X Not Critical		
b. <b>PLACE</b> keylock switch 3-HS-84-36, SELECT, to SUPPR-CHBR position	SUPPR CHBR/DW VENT ISOL BYP (Panel 3-9-54).		
Standard:			
Placed 3-HS-84-36 in the SUPPR-CHBR po	sition		
SATUNSATN/ACOMMENTS:			
**************************************	**************************************		
c. <b>VERIFY OPEN 3</b> -FCV-64-34, SUP (Panel 3-9-54).	PR CHBR INBOARD ISOLATION VLV		
Standard:			
Verifies 3-FCV-64-34 Open			
SAT UNSAT N/ACOMMENTS:			
**************************************	**************************************		
d. <b>VERIFY</b> 3-FIC-84-20, PATH A VE 100 scfm (Panel 3-9-55).	NT FLOW CONT, in AUTO with setpoint at		
Standard:			
Places 3-FIC-84-20 in Auto at 100 SCFM			
SATUNSAT N/ACOMMENTS:			

JPM	g		
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# Performance Step 14:

Critical _ Not Critical X

- e. **PLACE** keylock switch 3-HS-84-20, 3-FCV-84-20 ISOLATION BYPASS, in BYPASS (Panel 3-9-55).
- 4. IF While executing this procedure, the desired vent path is lost or cannot be established, THEN **PERFORM** step 13 to secure the vent path and re-enter this procedure if further venting is required.

# Standard:

	3-FCV-84-2	20 will fa	ail to Open, Operator proceeds to Step 4 which directs Step 13	
SAT_	_UNSAT	_ N/A _	COMMENTS:	

CUE: SRO Directs Drywell venting

JPM	g		
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The second secon

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Perform	ance Step 15:	Critical Not Critical X
13.	WHEN ANY of the following exists:	
	<ul> <li>Venting is no longer required,</li> <li>Pressure in the space being ver</li> <li>Directed by SRO,</li> <li>OR</li> </ul>	ated approaches zero,
	• Directed by Step 3, 4, or 5,	
-	THEN SECURE venting as follows:	
8	a. <b>VERIFY</b> the following keylock	switches in OFF (Panel 3-9-54):
		OW VENT ISOL BYP SELECT, OW VENT ISOL BYP SELECT.
Standard	<u>d:</u>	
(	Operator places 3-HS-84-35 and 36 in O	ff
SAT	UNSATN/ACOMMENTS:	
	**************************************	**************************************
1 CHOIM	ance Step 10.	entical _ Not entical <u>x</u>
ł	b. <b>VERIFY</b> keylock switch 3-HS-NORMAL (Panel 3-9-55).	84-20, 3-FCV-84-20 ISOLATION BYPASS, in
Standard	<u>d:</u>	
]	Places 3-HS-84-20 to Normal	
SAT	UNSATN/ACOMMENTS:	

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**************************************	**************************************
c. <b>VERIFY</b> keylock switch 3-HS-84-19, 3-FCV-84-1 in CLOSE (Panel 3-9-55).	<del></del>
Standard:	
Verifies 3-HS-84-19 is in Close	
SATUNSAT N/ACOMMENTS:	
· *************************	********
Performance Step 18:	Critical _ Not Critical X
d. <b>VERIFY CLOSED</b> the following valves (Panel 3	-9-3 or Panel 3-9-54):
<ul> <li>3-FCV-64-31, DRYWELL INBD ISOLATION V</li> <li>3-FCV-64-29, DRYWELL VENT INBD ISOL V</li> <li>3-FCV-64-34, SUPPR CHBR INBD ISOLATION</li> <li>3-FCV-64-32, SUPPR CHBR VENT INBD ISOL</li> </ul>	ALVE, NVLV,
Standard:	
Verifies above listed valves are closed	
SATUNSAT N/ACOMMENTS:	
**************************************	**************************************
e. <b>VERIFY CLOSED</b> 3-FCV-64-141, DRYWELL 1 (Panel 3-9-3).	DP COMP BYPASS VALVE
Standard:	
Verifies closed 3-FCV-64-141	
SATUNSAT N/ACOMMENTS:	
CUE: SRO Directs Drywell venting	

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****	*************************	**
Perfor	ance Step 20: Critical X Not Critical	
10.	<b>VENT</b> the Drywell using 2-FIC-84-19, PATH B VENT FLOW CONT, as follows:	
	a. <b>VERIFY CLOSED</b> 2-FCV-64-141, DRYWELL DP COMP BYPASS VALVI (Panel 2-9-3).	Ξ.
Standa	<u>1:</u>	
	Verify Closed 2-FCV-64-141	
SAT_	UNSAT N/ACOMMENTS:	
	**************************************	**
	pLACE keylock switch 3-HS-84-36, SUPPR CHBR/DW VENT ISOL BYP SELECT, to DRYWELL position (Panel 3-9-54).	
Standa	<u>d:</u>	
	Placed 3-HS-84-36 in the DRYWELL position	
SAT_	UNSATN/ACOMMENTS:	
	**************************************	***
	verify open 3-fcv-64-29, Drywell vent inbd isol valve (Pan 3-9-54).	el
Standa	<u>d:</u>	
	Verifies 3-FCV-64-29 Opens	
SAT_	UNSATN/ACOMMENTS:	

JPM	g			
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********	*************	*************		
Performance S	Step 23:	Critical X Not Critical		
d.	<b>PLACE 3-</b> FIC-84-19, PATH B VENT FL 100 scfm (Panel 3-9-55).	OW CONT, in AUTO with setpoint at		
Standard:				
Places	3-FIC-84-19 in Auto at 100 SCFM			
SATUNSA	ATN/ACOMMENTS:			
******** Performance S	**************************************	**************************************		
e.	<b>PLACE</b> keylock switch 3-HS-84-19, 3-FO 3-9-55).	CV-84-19 CONTROL, in OPEN (Panel		
Standard:				
Places	3-HS-84-19 in Open			
SATUNSA	ATN/ACOMMENTS:			
******** Performance S	**************************************	**************************************		
f.	<b>VERIFY 3</b> -FIC-84-19, PATH B VENT F approximately 100 scfm.	LOW CONT, is indicating		
g.	<b>CONTINUE</b> in this procedure at step 12.			
Standard:				
Verifie	es 3-FIC-84-19 is indicating approximately 1	00 scfm and continues at step 12		
SATUNSA	ATN/ACOMMENTS:			

*****************	*******	******	>
Performance Step 26:	Critical	Not Critical X	

- 12. **ADJUST 3**-FIC-84-19, PATH B VENT FLOW CONT, as applicable, to maintain ALL of the following:
  - Stable flow as indicated on controller,

**AND** 

- 3-PA-84-21, VENT PRESS TO SGT HIGH, alarm light extinguished, **AND**
- Release rates as determined below:
  - i. IF PRIMARY CONTAINMENT FLOODING per C-1, Alternate Level Control, is in progress, THEN **MAINTAIN** release rates below those specified in Attachment 2.
  - ii. IF Severe Accident Management Guidelines are being executed,THEN MAINTAIN release rates below those specified by the TSC SAM Team.
  - iii. IF Venting for ANY other reason than items i or ii above, THEN MAINTAIN release rates below
    - Stack release rate of 1.4 x 107 μCi/s **AND**
    - 0-SI-4.8.B.1.a.1 release fraction of 1.

#### Standard:

	Request rele	ease rate	s from Log AUO		
SAT_	_UNSAT	_ N/A _	_COMMENTS:_	 	 

CUE: Primary Containment Flooding and SAMG are not being executed

CUE: When Release rates are requested report a Stack Release Rate of 1.6 x  $10^7 \,\mu\text{Ci/s}$  and release fraction of .95

JPM	g		
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Performance Step 27:	Critical X Not Critical
REDUCE vent flow to obtain acceptable release rate/fraction	n readings.
Standard:	
Recognized exceeding Release Rate Limit of 1.4 x 10 ⁷	μCi/s and adjusted 3-FIC-84-19
SATUNSAT N/ACOMMENTS:	
CUE: If Flow is reduced report a new Stack Releas release fraction of .85	se Rate of 1.3 x $10^7 \mu$ Ci/s and a
STOP TIME	

END OF TASK

OPERATOR:	
RO SRO _	DATE:
JPM NUMBER:	h
TASK NUMBER:	U-001-NO-08
TASK TITLE:	Close MSIVs during Power Operations
K/A NUMBER:	239001 A4.01 K/A RATING: RO 4.2 SRO 4.0
TASK STANDARD:	Closes Inboard and Outboard MSIVs on Main Steam Line C
LOCATION OF PER	FORMANCE: Simulator
REFERENCES/PROG	CEDURES NEEDED: 2-OI-1
VALIDATION TIME	: 20 minutes
MAX. TIME ALLOW	/ED: (Completed for Time Critical JPMs only)
PERFORMANCE TI	ME:
COMMENTS:	
-	
Additional comment s	heets attached? YES NO
RESULTS: SATIS	FACTORY UNSATISFACTORY
SIGNATURE:	DATE:

**INITIAL CONDITIONS**: You are a Unit Operator. Plant conditions are as found. No MSIVs LS-3 or LS-4 is failed. Precautions and limitations of 2-OI-1, Main Steam System, have been reviewed.

**INITIATING CUES**: The Unit Supervisor directs you to close both MSIVs on Main Steam Line C per 2-OI-1, Main Steam System, section 8.2

****************************

**IN-SIMULATOR**: I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect, if applicable). When you have completed your assigned task, you will say "my task is complete" and I will acknowledge that your task is complete.

*************************************

**INITIAL CONDITIONS**: You are a Unit Operator. Plant conditions are as found. No MSIVs LS-3 or LS-4 is failed. Precautions and limitations of 2-OI-1, Main Steam System, have been reviewed.

**INITIATING CUES**: The Unit Supervisor directs you to close both MSIVs on Main Steam Line C per 2-OI-1, Main Steam System, section 8.2

	TTIME
Perfor	mance Step 1: Critical _ Not Critical X
8.2.3	Closing Main Steam Line C Valve(s) During Power Operations
	NOTES
1)	Test stroking an MSIV to the closed position takes about 45-60 seconds.
2)	LS-5 limit switches cause the MSIV green position indicator light to illuminate at 85% open. The LS-3 and LS-4 limit switches for the Unit 2 MISVs actuate at 90% open to initiate a reactor scram via the RPS. During MSIV testing, a half-scram initiation signal will be received before the green position indicator light illuminates.
3)	Closing a MSIV with another main steam line MSIV closed or a failed LS-3 or LS-4 switch, may cause a half or a full reactor scram. <b>REFER TO</b> Illustrations 1 and 2.
4)	Main Steam Line Flow Indication goes to the Reactor Feed Control System.  Closing and Opening a MSIV will cause a fluctuation in the Reactor Feed Water System.
[1]	<b>REVIEW</b> all Precautions and Limitations in Section 3.0.
[2]	VERIFY that ALL MSIVs are open.
[3]	<b>CHECK</b> by administration means that no MSIVs LS-3 or LS-4 has failed (i.e., Narrative Logs, Caution Orders, Work Orders).
[4]	<b>IF</b> a failed LS-3 or LS-4 for a MSIV has been determined, <b>THEN CHECK</b> that a Half Scram will NOT occur when the valve to be operated is closed. ( <b>REFER TO</b> Illustrations 1 and 2, and RPS Logic prints 730E915)
[5]	<b>IF</b> a Half Scram is expected to occur, <b>THEN STOP</b> and <b>OBTAIN</b> Unit Supervisors permission to continue in the procedure.
[6]	<b>VERIFY</b> or <b>LOWER</b> Reactor Power to ≤ 66% per 2-GOI-100-12 or 2-GOI-100-12A.
Standa	ard:
	Given in initial conditions for step 3, power is less than 66%
SAT	UNSAT N/A COMMENTS:

****************************

Performance Step 2:

Critical X Not Critical

#### **NOTES**

- 1) To prevent a RPS Half Scram, only one set of Main Steam Line Isolation Valves (Inboard and Outboard) should be closed at a time.
- 2) Closing a MSIV may cause MSL drain valves to operate. P&L 3.3A, 3.3B and 3.3C should be reviewed for applicability.
- When a MSIV is closed at power, the potential exists for an isolation of the Hydrogen Water Chemistry System to occur. **REFER TO** Precaution 3.2.1B.
- 4) During power operations when using the test pushbutton to slow stroke the MISV closed, the MSIV is to be considered closed when either one of the following conditions are met:
  - The red position indicating light on Panel 9-3 extinguishes, or
  - The test pushbutton has been held for approximately 3 minutes and the steam flow in the isolated MSL is essentially zero (less than 0.4 Mlb/hr).
- [7] **PERFORM** the following to close MSIV LINE C INBOARD MSIV:
  - [7.1] **DEPRESS** and **HOLD** MSIV LINE C INBOARD TEST, 2-HS-1-37B pushbutton until Step 8.2.3[7.3].
  - [7.2] WHEN MSIV LINE C INBOARD indicates closed OR

**AFTER** approximately three minutes have past since Step 8.2.3[7.1] and steam flow in the isolated MSL has been verified as essentially zero, **THEN** 

- PLACE MSIV LINE C INBOARD, 2-HS-1-37A in the CLOSE position.
- [7.3] **RELEASE** MSIV LINE C INBOARD TEST, 2-HS-1-1-37B push-button

# Standard:

Operator depresses and holds the MSIV Line C Inboard test push button until the MSIV is closed, then places the switch to close, and then releases the test push button. Note: if the valve goes back open after it is closed it would be a failure.

SAT	UNSAT	N/A	COMMENTS:	 	

****************************

#### Performance Step 3:

Critical X Not Critical

#### **NOTES**

- To prevent a RPS Half Scram, only one set of Main Steam Line Isolation Valves (Inboard and Outboard) should be closed at a time.
- 2) Closing a MSIV may cause MSL drain valves to operate. P&L 3.3A, 3.3B and 3.3C should be reviewed for applicability.
- 3) When a MSIV is closed at power, the potential exists for an isolation of the Hydrogen Water Chemistry System to occur. **REFER TO** Precaution 3.2.1B.
- 4) During power operations when using the test pushbutton to slow stroke the MISV closed, the MSIV is to be considered closed when either one of the following conditions are met:
  - The red position indicating light on Panel 9-3 extinguishes, or
  - The test pushbutton has been held for approximately 3 minutes and the steam flow in the isolated MSL is essentially zero (less than 0.4 Mlb/hr).
- [8] **PERFORM** the following to close MSIV LINE C OUTBOARD MSIV:
  - [8.1] **DEPRESS** and **HOLD** MSIV LINE C OUTBOARD TEST, 2-HS-1-38B push-button until Step 8.2.3[8.3].
  - [8.2] WHEN MSIV LINE C OUTBOARD indicates closed OR

**AFTER** approximately three minutes have past since Step 8.2.3[8.1] and steam flow in the isolated MSL has been verified as essentially zero, **THEN** 

- PLACE MSIV LINE C OUTBOARD, 2-HS-1-38A in the CLOSE position.
- [8.3] **RELEASE** MSIV LINE C OUTBOARD TEST, 2-HS-1-1-38B push-button.

# Standard:

Operator depresses and holds the MSIV Line C Outboard test push button until the MSIV is closed, then places the switch to close, and then releases the test push button. Note: if the valve goes back open after it is closed it would be a failure.

SAT	UNSAT	N/A	COMMENTS:	

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************************					
Performance Step 4:	Critical X Not Critical				
NOTES					
1) When turbine generator RPM is above 1700 and Valves 2-FCV-1-168, -169, -170, and -171 will c DOWNSTREAM DRAINS SHUTOFF, and 2-FC TO CONDENSER opens, if closed, and their har	close and Valves 2-FCV-1-57, MSIV CV-1-58, UPSTREAM MSL DRAIN				
2) When opening the 2-FCV-1-55 and 2-FCV-56, N HWC system may isolate on LOW OFFGAS Ox					
[9] <b>OPEN</b> 2-FCV-1-55 using MN STM LINE DRAIN II	NBD ISOLATION VLV, 2-HS-1-55A.				
Standard:					
Opens drain valve 2-FCV-1-55					
SATUNSAT N/ACOMMENTS:	The state of the s				
****************	*********				
Performance Step 5:	Critical X Not Critical				
[10] <b>OPEN</b> 2-FCV-1-56 using MN STM LINE DRAIN 2-HS-1-56A.	OUTBD ISOLATION VLV,				
Standard:					
Opens drain valve 2-FCV-1-56					
SATUNSAT N/ACOMMENTS:					

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PAGE	8	OF	8

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Performance		Critical _ Not Critical <u>X</u>
[11] <b>VERIF</b> 2-HS-1-	ĕ	OWNSTREAM DRAINS SHUTOFF,
[12] <b>VERIF</b> 2-HS-1-	<b>&amp;</b> *	AM MSL DRAIN TO CONDENSER,
VERIF	$oldsymbol{Y}$ the green indicating light ILLUMIN	9, -170, and -171, ON 2-PNL-9-3 as follows: IATED and the red indicating light AIN VALVES POSITION, 2-ZI-1-174.
Standard:		
Verifi	es 2-FCV-1-57 and 58 are open and th	at 2-FCV-1-168, 169, 170, and 171 are closed.
SATUNS	ATN/ACOMMENTS:	
******** Performance		**************************************
[14]	IF desired AND directed by the Unit	it Supervisor, <b>THEN</b>
	steam lines below an average of 3.5	00-12, while maintaining the remaining 4 x 106 lbm/hr steam flow ), on the remaining three main steam lines.
Standard:		
None,	another Operator will raise power.	
SATUNS	ATN/ACOMMENTS:	
CUE:	Another Operator will raise Reacto	or Power

END OF TASK

STOP TIME ___

OPERATOR:					
RO SRO _	DATE:				
JPM NUMBER:	h				
TASK NUMBER:	U-001-NO-08				
TASK TITLE:	Close MSIVs during Power Operations				
K/A NUMBER:	239001 A4.01 K/A RATING: RO 4.2 SRO 4.0				
TASK STANDARD:	Closes Inboard and Outboard MSIVs on Main Steam Line C				
LOCATION OF PER	FORMANCE: Simulator				
REFERENCES/PROC	CEDURES NEEDED: 3-OI-1				
VALIDATION TIME	: 20 minutes				
MAX. TIME ALLOW	/ED: (Completed for Time Critical JPMs only)				
PERFORMANCE TIME:					
COMMENTS:					
Additional comment s	heets attached? YES NO				
RESULTS: SATIS	FACTORY UNSATISFACTORY				
SIGNATURE: DATE:					

**INITIAL CONDITIONS**: You are a Unit Operator. Plant conditions are as found. No MSIVs LS-3 or LS-4 is failed. Precautions and limitations of 3-OI-1, Main Steam System, have been reviewed.

**INITIATING CUES**: The Unit Supervisor directs you to close both MSIVs on Main Steam Line C per 3-OI-1, Main Steam System, section 8.2

*********************************

**IN-SIMULATOR**: I will explain the initial conditions and state the task to be performed. I will provide initiating cues and reports on other actions when directed by you. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's Correct". (OR "That's Incorrect, if applicable). When you have completed your assigned task, you will say "my task is complete" and I will acknowledge that your task is complete.

**INITIAL CONDITIONS**: You are a Unit Operator. Plant conditions are as found. No MSIVs LS-3 or LS-4 is failed. Precautions and limitations of 3-OI-1, Main Steam System, have been reviewed.

**INITIATING CUES**: The Unit Supervisor directs you to close both MSIVs on Main Steam Line C per 3-OI-1, Main Steam System, section 8.2

****	TTIME  *************************  mance Step 1:  CriticalNot Critical X
	Closing Main Steam Line C Valve(s) During Power Operations
	NOTES
1)	Test stroking an MSIV to the closed position takes about 45-60 seconds.
2)	LS-5 limit switches cause the MSIV green position indicator light to illuminate at 85% open. The LS-3 and LS-4 limit switches for the Unit 3 MISVs actuate at 90% open to initiate a reactor scram via the RPS. During MSIV testing, a half-scram initiation signal will be received before the green position indicator light illuminates.
3)	Closing a MSIV with another main steam line MSIV closed or a failed LS-3 or LS-4 switch, may cause a half or a full reactor scram. <b>REFER TO</b> Illustrations 1 and 2.
4)	Main Steam Line Flow Indication goes to the Reactor Feed Control System.  Closing and Opening a MSIV will cause a fluctuation in the Reactor Feed Water System.
[1]	<b>REVIEW</b> all Precautions and Limitations in Section 3.0.
[2]	VERIFY that ALL MSIVs are open.
[3]	<b>CHECK</b> by administration means that no MSIVs LS-3 or LS-4 has failed (i.e., Narrative Logs, Caution Orders, Work Orders).
[4]	IF a failed LS-3 or LS-4 for a MSIV has been determined, THEN CHECK that a Half Scram will NOT occur when the valve to be operated is closed. (REFER TO Illustrations 1 and 2, and RPS Logic prints 730E915)
[5]	<b>IF</b> a Half Scram is expected to occur, <b>THEN STOP</b> and <b>OBTAIN</b> Unit Supervisors permission to continue in the procedure.
[6]	<b>VERIFY</b> or <b>LOWER</b> Reactor Power to ≤ 66% per 3-GOI-100-12 or 3-GOI-100-12A.
Standa	ard:
	Given in initial conditions for step 3, power is less than 66%
SAT_	UNSATN/ACOMMENTS:

*******************************

#### Performance Step 2:

Critical X Not Critical

#### **NOTES**

- 1) To prevent a RPS Half Scram, only one set of Main Steam Line Isolation Valves (Inboard and Outboard) should be closed at a time.
- 2) Closing a MSIV may cause MSL drain valves to operate. P&L 3.3A, 3.3B and 3.3C should be reviewed for applicability.
- When a MSIV is closed at power, the potential exists for an isolation of the Hydrogen Water Chemistry System to occur. **REFER TO** Precaution 3.2.1C.
- 4) During power operations when using the test pushbutton to slow stroke the MISV closed, the MSIV is to be considered closed when either one of the following conditions are met:
  - The red position indicating light on Panel 9-3 extinguishes, or
  - The test pushbutton has been held for approximately 3 minutes and the steam flow in the isolated MSL is essentially zero (less than 0.4 Mlb/hr).
- [7] **PERFORM** the following to close MSIV LINE C INBOARD MSIV:
  - [7.1] **DEPRESS** and **HOLD** MSIV LINE C INBOARD TEST, 3-HS-1-37B pushbutton until Step 8.2.3[7.3].
  - [7.2] WHEN MSIV LINE C INBOARD indicates closed OR

**AFTER** approximately three minutes have past since Step 8.2.3[7.1] and steam flow in the isolated MSL has been verified as essentially zero, **THEN** 

- PLACE MSIV LINE C INBOARD, 3-HS-1-37A in the CLOSE position.
- [7.3] **RELEASE** MSIV LINE C INBOARD TEST, 3-HS-1-1-37B push-button

# Standard:

Operator depresses and holds the MSIV Line C Inboard test push button until the MSIV is closed, then places the switch to close, and then releases the test push button. Note: if the valve goes back open after it is closed it would be a failure.

SAT	UNSAT	_N/A	COMMENTS:_		

*************************

Performance Step 3:

Critical X Not Critical

#### **NOTES**

- 1) To prevent a RPS Half Scram, only one set of Main Steam Line Isolation Valves (Inboard and Outboard) should be closed at a time.
- 2) Closing a MSIV may cause MSL drain valves to operate. P&L 3.3A, 3.3B and 3.3C should be reviewed for applicability.
- When a MSIV is closed at power, the potential exists for an isolation of the Hydrogen Water Chemistry System to occur. **REFER TO** Precaution 3.2.1C.
- 4) During power operations when using the test pushbutton to slow stroke the MISV closed, the MSIV is to be considered closed when either one of the following conditions are met:
  - The red position indicating light on Panel 9-3 extinguishes, or
  - The test pushbutton has been held for approximately 3 minutes and the steam flow in the isolated MSL is essentially zero (less than 0.4 Mlb/hr).
- [8] **PERFORM** the following to close MSIV LINE C OUTBOARD MSIV: (Otherwise N/A this section)
  - [8.1] **DEPRESS** and **HOLD** MSIV LINE C OUTBOARD TEST, 3-HS-1-38B push-button until Step 8.2.3[8.3].
  - [8.2] WHEN MSIV LINE C OUTBOARD indicates closed OR

**AFTER** approximately three minutes have past since Step 8.2.3[8.1] and steam flow in the isolated MSL has been verified as essentially zero, **THEN** 

- PLACE MSIV LINE C OUTBOARD, 3-HS-1-38A in the CLOSE position.
- [8.3] **RELEASE** MSIV LINE C OUTBOARD TEST, 3-HS-1-1-38B push-button.

#### Standard:

Operator depresses and holds the MSIV Line C Outboard test push button until the MSIV is closed, then places the switch to close, and then releases the test push button. Note: if the valve goes back open after it is closed it would be a failure.

SAT	_UNSAT_	N/A	_COMMENTS:_	
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JPM h PAGE 7 OF 8

*************	*********			
Performance Step 4:	Critical X Not Critical			
NOTES				
1) When turbine generator RPM is above 1700 a Valves 3-FCV-1-168, -169, -170, and -171 w DOWNSTREAM DRAINS SHUTOFF, and TO CONDENSER opens, if closed, and their	ill close and Valves 3-FCV-1-57, MSIV 3-FCV-1-58, UPSTREAM MSL DRAIN			
When TACF 3-10-004-001 is in effect, 3-FC with its breaker maintained in the OFF positions close and can only be repositioned locally usi located in the Unit 3 Turbine Bldg. steam tun	on. The valve will not automatically open or ng the manual handwheel. The valve is			
3) When opening the 3-FCV-1-55 and 3-FCV-56 HWC system may isolate on LOW OFFGAS				
[9] <b>OPEN</b> 3-FCV-1-55 using MN STM LINE DRAI	N INBD ISOLATION VLV, 3-HS-1-55A.			
Standard:				
Opens drain valve 3-FCV-1-55				
SATUNSATN/ACOMMENTS:				
**************************************				
[10] <b>OPEN</b> 3-FCV-1-56 using MN STM LINE DRA 3-HS-1-56A.	AIN OUTBD ISOLATION VLV,			
Standard:				
Opens drain valve 3-FCV-1-56				
SATUNSAT N/ACOMMENTS:				

JPM	h		
PAGE	8	OF	8

************	**********
Performance Step 6:	Critical $_$ Not Critical $\underline{X}$
[11] <b>VERIFY OPEN</b> 3-FCV-1-57 using MSIV II 3-HS-1-57A.	DOWNSTREAM DRAINS SHUTOFF,
[12] <b>VERIFY OPEN</b> 3-FCV-1-58 using UPSTR 3-HS-1-58A.	EAM MSL DRAIN TO CONDENSER,
[13] <b>CHECK CLOSED</b> valves 3-FCV-1-168, -1 <b>VERIFY</b> the green indicating light ILLUMI EXTINGUISHED for MAIN STM LINE DE	NATED and the red indicating light
Standard:	
Verifies 3-FCV-1-57 and 58 are open and t	that 3-FCV-1-168, 169, 170, and 171 are closed.
SATUNSAT N/ACOMMENTS:	
************	**********
Performance Step 7:	Critical $_$ Not Critical $\underline{X}$
[14] <b>IF</b> desired <b>AND</b> directed by the U:	nit Supervisor, THEN
steam lines below an average of 3.	-100-12, while maintaining the remaining 54 x 106 lbm/hr steam flow er), on the remaining three main steam lines.
Standard:	
None, another Operator will raise power.	
SATUNSAT N/ACOMMENTS:	
CUE: Another Operator will raise Reac	tor Power
END OF	TARK

END OF TASK

STOP TIME ___

OPERATOR:	
RO SRO _	DATE:
JPM NUMBER:	i
TASK NUMBER:	U-35A-AL-04
TASK TITLE:	Stator Cooling Water System Return to Automatic Temp Control
K/A NUMBER:	241000 A2.10 K/A RATING: RO 3.1 SRO 3.2
TASK STANDARD:	Stator Cooling Water System simulated returned to Automatic Temperature Control
LOCATION OF PER	FORMANCE: Plant
REFERENCES/PROC	CEDURES NEEDED: 2-ARP-25-114A, Window 9, STATOR CLG WATER GEN INLET HI TEMP
VALIDATION TIME	: 5 minutes
MAX. TIME ALLOW	/ED: (Completed for Time Critical JPMs only)
PERFORMANCE TI	ME:
Additional comment s	heets attached? YES NO
RESULTS: SATIS	FACTORY UNSATISFACTORY
SIGNATURE:	DATE:

**INITIAL CONDITIONS**: You are an Auxiliary Unit Operator. The Unit 2 Main Generator was tied to the grid several days ago. Approximately 3 hours later, Annunciator STATOR CLG WATER GEN INLET HI TEMP was received on Panel-25-114A, Window 9. The Turbine Building AUO responded in accordance with 2-ARP-25-114A, Window 9. Control Air Supply to 2-TCV-35-54 was manually isolated.

Subsequently, an automatic isolation signal was received. The failure was determined to be failed temperature controller, 2-TC-35-54, the controller has been replaced and the system is ready to be returned to automatic control.

**INITIATING CUE**: You are directed to return the Stator Water Cooling system to automatic temperature control in accordance with 2-ARP-25-114A, Window 9, step L

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

IN-PLANT: I will explain the initial conditions and state the task to be performed. <u>ALL STEPS WILL BE SIMULATED</u>. Do <u>NOT</u> operate any plant equipment. Touch STAAR may be carried out to the point of touching a label. If it becomes necessary to physically touch a control switch, use a non-conductive pointing device. I will provide initiating cues and indicate any steps to be discussed. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's correct" (or That's incorrect", if applicable). When you have completed your assigned task, you will say, "My task is complete" and I will acknowledge that your task is complete.

**INITIAL CONDITIONS**: You are an Auxiliary Unit Operator. The Unit 2 Main Generator was tied to the grid several days ago. Approximately 3 hours later, Annunciator STATOR CLG WATER GEN INLET HI TEMP was received on Panel-25-114A, Window 9. The Turbine Building AUO responded in accordance with 2-ARP-25-114A, Window 9. Control Air Supply to 2-TCV-35-54 was manually isolated.

Subsequently, an automatic isolation signal was received. The failure was determined to be failed temperature controller, 2-TC-35-54, the controller has been replaced and the system is ready to be returned to automatic control.

**INITIATING CUE**: You are directed to return the Stator Water Cooling system to automatic temperature control in accordance with 2-ARP-25-114A, Window 9, step L

**CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!** 

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<b>START TI</b> *******		 *********************************	*****
Performanc	e Step 1:	Critical X Not Criti	cal
L. WHEN ready to return to automatic temperature control, THEN PERFORM following:		FORM the	
	•	<b>VERIFY OPEN</b> TCV-35-54 ISOL, 2-32-1007.	
Standard:			
Оре	erator simu	ulates opening 2-32-1007	
SAT U	JNSAT	Comments:	

CUE: When location of 2-32-1007 is identified and operator has simulated opening the valve, the valve is open

JPM	i		
PAGE	5	OF	6

*********	********	**************	*******

# Performance Step 2:

Critical X Not Critical

• **IF** the air supply to 2-TCV-35-54 was automatically isolated, **THEN PRESS** 2-HS-35-54 to RESET (OPEN) the air supply to 2-TCV-35-54.

## Standard:

Operator simulates depressing 2-HS-35-54 to RESET (OPEN) the air supply to 2-TCV-35-54

SAT	UNSAT	Comments:		
-----	-------	-----------	--	--

**CUE:** When location of 2-HS-35-54 is identified and operator has simulated depressing the button, the air supply to 2-TCV-35-54 is open.

NOTE: The reset button is on panel 25-114A (Stator Water Cooling Panel)

**************************************	*
• <b>FULLY LOWER</b> (Clockwise) the 2-TCV-35-54 handwheel.	
Standard:	
Operator simulates turning the 2-TCV-35-54 handwheel fully clockwise	
SAT UNSAT Comments:	
CUE: When location of 2-TCV-35-54 is determined and operator has simulated turning the handwheel fully clockwise, the valve is FULLY LOWERED	
END OF TASK	

STOP TIME_

JPM j PAGE 1 OF 11

OPERATOR:	
RO SRO _	DATE:
JPM NUMBER:	j
TASK NUMBER:	S-082-NO-01
TASK TITLE:	Transfer DG A control to A 4KV SD BD & Secure DG A
K/A NUMBER: 2640	000 A2.01 K/A RATING: RO 3.5 SRO 3.6
TASK STANDARD:	Simulate transfer of Diesel Generator A control to 4KV Shutdown Board A and simulate securing the Diesel Generator from the Shutdown Board
LOCATION OF PERI	FORMANCE: Plant
REFERENCES/PROC	CEDURES NEEDED: 0-OI-82, Standby Diesel Generator System
VALIDATION TIME	: 15 minutes
MAX. TIME ALLOW	ED: (Completed for Time Critical JPMs only)
PERFORMANCE TIN	ME:
	-
Additional comment s	heets attached? YES NO
RESULTS: SATIS	FACTORY UNSATISFACTORY
SIGNATURE:	EXAMINER DATE:

INITIAL CONDITIONS: You are the extra operator. DG A is running and aligned in Parallel with System for a monthly operability check. DG A is paralleled and loaded with the A 4KV-SD BD: The control room operator has lost control of DG A from Panel 9-23 while lowering load for termination from parallel operation. Current load is 100 kW and 75 kVAR. The Unit Operator is standing by at Panel 9-23 and has given you permission to transfer control of the Diesel Generator to the 4KV Shutdown Board. An AUO is on station at the Central Diesel Information Center, Panel 25-41, with a radio. An AUO is also on station locally at the Diesel Generator, with a radio, to obtain any local readings or perform any local actions. All Precautions and Limitations of 0-OI-82, Standby Diesel Generator System, section 3.0, have been reviewed.

**INITIATING CUE**: The Unit 2 Unit Supervisor has directed you to transfer DG A control to the A 4KV SD BD, in accordance with 0-OI-82, Standby Diesel Generator System, Section 8.4; **THEN** shutdown the diesel from the A 4KV Shutdown board in accordance with 0-OI-82, Standby Diesel Generator System, Section 7.2.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

*************************************

**IN-PLANT:** I will explain the initial conditions and state the task to be performed. <u>ALL STEPS WILL BE SIMULATED</u>. Do <u>NOT</u> operate any plant equipment. Touch STAAR may be carried out to the point of touching a label. If it becomes necessary to physically touch a control switch, use a non-conductive pointing device. I will provide initiating cues and indicate any steps to be discussed. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's correct" (or That's incorrect", if applicable). When you have completed your assigned task, you will say, "My task is complete" and I will acknowledge that your task is complete.

*************************************

**INITIAL CONDITIONS**: You are the extra operator. DG A is running and aligned in Parallel with System for a monthly operability check. DG A is paralleled and loaded with the A 4KV SD BD. The control room operator has lost control of DG A from Panel 9-23 while lowering load for termination from parallel operation. Current load is 100 kW and 75 kVAR. The Unit Operator is standing by at Panel 9-23 and has given you permission to transfer control of the Diesel Generator to the 4KV Shutdown Board. An AUO is on station at the Central Diesel Information Center, Panel 25-41, with a radio. An AUO is also on station locally at the Diesel Generator, with a radio, to obtain any local readings or perform any local actions. All Precautions and Limitations of 0-OI-82, Standby Diesel Generator System, section 3.0, have been reviewed.

**INITIATING CUE**: The Unit 2 Unit Supervisor has directed you to transfer DG A control to the A 4KV SD BD, in accordance with 0-OI-82, Standby Diesel Generator System, Section 8.4; **THEN** shutdown the diesel from the A 4KV Shutdown board in accordance with 0-OI-82, Standby Diesel Generator System, Section 7.2.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME
*************************
Performance Step 1: Critical Not Critical X
8.4 Transfer of Diesel Generator Control to 4-kV Shutdown
NOTE
Transfer of Diesel Generator control to the associated 4-kV shutdown board is usually performed for test purposes or for loss of Diesel Generator control on Panel 9-23.
[1] <b>REQUEST</b> permission from the Unit Operator to transfer control of the Diesel Generator to the 4-kV shutdown board.
Standard:
Given in initial conditions
SATUNSAT N/ACOMMENTS:
**************************************
[2] <b>STATION</b> an operator at the Central Diesel Information Center, Panel 25-41.
Standard:
Given in initial conditions
SATUNSAT N/ACOMMENTS:

JPM	j		
PAGE	5	OF	11

***************************************	*

Performance Step 3:

Critical _ Not Critical X

[3] **ESTABLISH** communications between personnel at 4-kV Shutdown Board A and the Central Diesel Information Center.

Standard:

Given in initial conditions

SAT__UNSAT__ N/A __COMMENTS:_____

CUE: If necessary, communicate with candidate as operator at the Central Diesel Information Center

CUE: If requested when arriving at DG A Output Breaker 1818, Voltage is 4250, Amp meters A, B, and C indicate 50 amps, kVAR = 75, kW = 700. Breaker 1818 red light is ON and amber light is ON. DG Control Switch Red light ON

JPM j PAGE 6 OF 11

#### Performance Step 4:

Critical X Not Critical

[4] **IF** the Diesel Generator output breaker is closed, **THEN PULL and PLACE** DIESEL GENERATOR A OPER MODE SELECTOR SWITCH on 4-kV Shutdown Board A in the same position as the DIESEL GENERATOR A OPERATION MODE SELECTOR switch on Panel 9-23.

Diesel	Handswitch Name	Handswitch No.	Compartment
A	DG A MODE SWITCH	0-HS-082-000A/5B	22
В	DG B MODE SWITCH	0-HS-082-000B/5B	4
С	DG C MODE SWITCH	0-HS-082-000C/5B	4
D	DG D MODE SWITCH	0-HS-082-000D/5B	20

# Standard:

Simulates pulling and placing DG A Mode Switch, 0-HS-082-000A/5B, in Parallel with System

SAT	UNSAT	N/A	COMMENTS:

CUE:

As Unit Operator, DG A Mode Switch is in Parallel with System on Panel 9-23.

When candidate simulates operating OPER MODE SELECTOR SWITCH on 4KV Shutdown Board A, switch is in Parallel with System.

***************************************
-----------------------------------------

Performance Step 5:

Critical X Not Critical

#### **CAUTION**

Failure to verify the breaker local control switch in "normal after close" <u>before</u> placing the control transfer switch in "EMERG" can prevent auto closing of the Diesel Generator breaker on degraded voltage or loss of voltage to the Shutdown Board.

- [5] **IF** transfer of Diesel Generator control to 4-kV Shutdown Board A is required, **THEN PERFORM** the following:
  - [5.1] **VERIFY** DG A OUTPUT BKR 1818 local control switch in NORM AFTER CLOSE.

Diesel	Handswitch Name	Handswitch No.	Compartment
A	BREAKER CONTROL SWITCH	0-HS-211-000A/22B	22
В	BREAKER CONTROL SWITCH	0-HS-211-000B/04B	4
С	BREAKER CONTROL SWITCH	0-HS-211-000C/04B	4
D	BREAKER CONTROL SWITCH	0-HS-211-000D/20B	20

# Standard:

Simulates placing DG A OUTPUT BKR 1818 local control switch in NORM AFTER CLOSE to obtain a RED flag.

SAT	UNSAT	N/A	COMMENTS:	

CUE: When candidate simulates operating DG A OUTPUT BKR 1818 local control switch on 4KV Shutdown Board A, breaker switch is in NORM AFTER CLOSE, Red Flag indicated

JPM	j		
PACE	8	$\bigcirc$ F	11

		PAGE	9 OF 11
	**************************************	**************************************	
	[5.2] <b>PLACE</b> DIESEL GENERATOR A CEMERG.	CONTROL TRANSFE	R SWITCH in
Diesel	Handswitch Name	Handswitch No.	Compartment
A	BREAKER CONTROL TRANSFER SWITCH 43	0-43-211-000A/022	22
В	BREAKER CONTROL TRANSFER SWITCH 43	0-43-211-000B/04	4
С	BREAKER CONTROL TRANSFER SWITCH 43	0-43-211-000C/04	4
D	BREAKER CONTROL TRANSFER SWITCH 43	0-43-211-000D/20	20
CUE:	When candidate simulates operating DG A CO on 4KV Shutdown Board A, switch is in EME and Parallel with System light is ON.		
Perform	**************************************	Critical _ Not	Critical <u>X</u>
Standar	d:  Notifies Unit Operator that control of DG A has been	transferred to 4KV Shu	ıtdown Board
SAT	UNSAT N/ACOMMENTS:  Acknowledge notification as Unit Operator		

JPM	j		
PAGE	9	OF	11

**************************************
Performance Step 8: Critical _ Not Critical X
[7] <b>IF</b> the Diesel Generator is operating, <b>THEN VERIFY</b> the following on 4-kV Shutdown Board A:
A. The appropriate Mode light (SINGLE UNIT or PARALLEL SYSTEM) illuminates.
B. The CONTROL AVAILABLE light illuminates (SYN AVAIL).
Standard:
Verifies proper light indications
SAT UNSAT N/ACOMMENTS:
CUE: PARALLEL SYSTEM light on SYN AVAIL light on
********************************
Performance Step 9: Critical Not Critical <u>X</u>
[8] <b>PULL and PLACE</b> the associated Diesel Generator mode selector switch in SINGLE UNIT at Panel 9-23.
Standard:
Directs Unit Operator to place DG A mode selector switch to SINGLE UNIT on Panel 9-23
SATUNSAT N/ACOMMENTS:
CUE: As Unit Operator, inform that DG A mode selector switch is in SINGLE UNIT on Panel 9-23

JPM	j		
PAGE	10	OF	11

1 CHO	rmance	Step I	<u>):</u>					*Critical	X Not Critic
7.2	Shute	down a	at 4-k	V Shuto	down Board	I			
	[1]	VER	AFY	the follo	wing initial o	conditions:			
		A.	Al	l Precaut	tions and Lin	nitations in S	Section 3.	0 have bee	en reviewed.
		*B.	DO	G A Outp	out Bkr 1818	is OPEN.			
Stanc	lard:								
	Simu	lates op	ening	g DG A (	Output Bkr 1	818 by placi	ng 0-HS-	-211-000A	/22B to Trip
SAT	TINIS	۸Т	NT/A	~~.					
	0113	A1	.N/A	CON	MMENTS:_				
CUE:		When	cand	lidate sir	nulates open		Output Bk	er on 4KV	Shutdown 1
CUE:		When Red li	cand	lidate sir Off, Gree	nulates open n light On	ing DG A C			
****		When Red li	cand	lidate sir Off, Gree	nulates open	ing DG A C		*****	
****	*****	When Red li	eand eght © **** iesel d, TH	lidate sir Off, Gree ******	nulates open n light On	ing DG A C	*******	*******  Critical _  red to the	*********** _ Not Critic 4-kV shutde
****	****** ormance [2]	When Red li  *****  Step 11  IF D board	eand eght © **** iesel d, TH	lidate sir Off, Gree ******	nulates open in light On  ***********  or control ha	ing DG A C	*******	*******  Critical _  red to the	*********** _ Not Critic 4-kV shutde
**** Perfo	*****  ormance  [2]  lard:	When Red li	**** iesel d, TH	lidate sir Off, Gree ******* Generate IEN RE	nulates open in light On  ***********  or control ha	*********  s <b>NOT</b> been ction 8.4 an	*******	*******  Critical _  red to the	*********** _ Not Critic 4-kV shutde

JPM	j		
PAGE	11	OF	11

*******	****	*******	******	*******	******	*******	******	****

Performance Step 12:

Critical X Not Critical

# [3] **PULL OUT** then **PUSH BACK IN** DIESEL GENERATOR A CONTROL switch in NORMAL to initiate the shutdown sequence.

Diesel	Handswitch Name	Handswitch No.	Compartment
A	DG A CONTROL SWITCH	0-HS-082-000A/1B	22
В	DG B CONTROL SWITCH	0-HS-082-000B/1B	4
C	DG C CONTROL SWITCH	0-HS-082-000C/1B	4
D	DG D CONTROL SWITCH	0-HS-082-000D/1B	20

#### **NOTE**

The diesel engine will idle between 440 RPM and 460 RPM for approximately 11.5 minutes after receiving a stop signal. An additional 3 minutes should be allowed for the logic timer to reset.

## Standard:

Simulates pulling out and pushing back in the DG A CONTROL switch

SAT	UNSAT	_COMMENTS:	

CUE:

When candidate simulates pulling out and pushing back in the DG A CONTROL switch, White light ON, Red light ON. DG Volt reading goes from 4400 to 2200 Volts.

JPM Complete another Operator will continue

#### **END OF TASK**

STOP TI	ME
---------	----

OPERATOR:			
RO SRO _	DATE:		
JPM NUMBER:	k		
TASK NUMBER:	U-000-EM-44		
TASK TITLE:	Line up Alternate RPV Injection System - Fire System in accordance with 1-EOI-Appendix-7K		
K/A NUMBER: 2950	031EA1.01 K/A RATING: RO 4.4 SRO 4.4		
TASK STANDARD:	Simulate performing valve manipulations required to align the Fire System to inject into the RPV via the RHR System as directed by 1-EOI-Appendix-7K		
LOCATION OF PER	FORMANCE: Plant		
REFERENCES/PROC	CEDURES NEEDED: 1-EOI-Appendix-7K		
VALIDATION TIME	: 25 minutes		
MAX. TIME ALLOW	/ED: (Completed for Time Critical JPMs only)		
PERFORMANCE TII	ME:		
COMMENTS:			
Additional comment s	heets attached? YES NO		
RESULTS: SATIS	FACTORY UNSATISFACTORY		
SIGNATURE: DATE: EXAMINER			

#### **INITIAL CONDITIONS:**

You are an extra operator. A tornado has caused Unit 1 reactor to scram and no AC power is available, all Diesel Generators failed. Due to an un-isolable leak and several equipment failures the RPV inventory cannot be maintained above TAF. The diesel fire pump is running. A Radiation Protection Technician is with you.

#### **INITIATING CUES:**

The Unit 1 Operator directs you to perform manual valve alignments per Attachment 1 of 1-EOI Appendix 7K. You have a radio and the Unit 1 operator will direct you to perform valve manipulations in accordance with the procedure steps listed in 1-EOI Appendix-7K.

**CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!** 

**************************

**IN-PLANT:** I will explain the initial conditions and state the task to be performed. <u>ALL STEPS WILL BE SIMULATED</u>. Do <u>NOT</u> operate any plant equipment. Touch STAAR may be carried out to the point of touching a label. If it becomes necessary to physically touch a control switch, use a non-conductive pointing device. I will provide initiating cues and indicate any steps to be discussed. When you complete the task successfully, the objective for this job performance measure will be satisfied. When your task is given, you will repeat the task and I will acknowledge "That's correct" (or That's incorrect", if applicable). When you have completed your assigned task, you will say, "My task is complete" and I will acknowledge that your task is complete.

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#### **INITIAL CONDITIONS:**

You are an extra operator. A tornado has caused Unit 1 reactor to scram and no AC power is available, all Diesel Generators failed. Due to an un-isolable leak and several equipment failures the RPV inventory cannot be maintained above TAF. The diesel fire pump is running. A Radiation Protection Technician is with you.

#### **INITIATING CUES:**

The Unit 1 Operator directs you to perform manual valve alignments per Attachment 1 of 1-EOI Appendix 7K. You have a radio and the Unit 1 operator will direct you to perform valve manipulations in accordance with the procedure steps listed in 1-EOI Appendix-7K.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

CUE:	U1 ·	Operato	or directs you to verify CLOSED	the valves listed in Step 2.c and 2.
			*********	**********
Performan	ce step 1	•		Critical Not Critical X
2. ]	NOTIFY	Unit 1	Operator to perform the following	ā.
	c. V	ERIFY	<b>CLOSED</b> the following valves (	Panel 1-9-20B):
		•	0-FCV-25-32, RSW STG TNF	CISOL VLV
		•	0-FCV-25-70, RSW STG TN	
Standard:				
			V-25-32, RSW STG TNK ISOL V y the position indication devices	VLV and 0-FCV-25-70, RSW STG
SAT U	NSAT	_ N/A _	COMMENTS:	
			, .	,
CUE:	0.F	CV-25	32 and 0-FCV-25-70 are as found	l on algorit

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Performance Step 2:	Critical Not Critical $\underline{X}$
d. <b>VERIFY CLOSED</b> 1-FCV-23-52, RHR H. VLV (Panel 1-9-3).	HX 1D RHRSW OUTLET
Standard:	
Verifies 1-FCV-23-52 valve position indicator indicating engaging handwheel and rotating handwheel in the CLO	
SATUNSATN/ACOMMENTS:	
CUE: If handwheel manipulation simulated, hand	dwheel is snug
CUE: U1 Operator directs you to OPEN the valve	listed in Ston 2 o
COLI. Of Operator uncess you to Or Elivine valve.	isau ii otep 2.e
**************************************	**************************************
x offermance step 5.	Critical 21 Not Critical
e. <b>OPEN</b> 1-FCV-23-57, STANDBY COOLAI (Unit 1, Panel 9-3).	NT VALVE FROM RHRSW
Standard:	
Simulates engaging handwheel and rotating 1-FCV-23-COUNTERCLOCKWISE direction	3-57 handwheel in the
SATUNSAT N/ACOMMENTS:	
CUE: When simulated, the handwheel is turning a outward (PAUSE), the handwheel is now snu	and the valve stem is moving

UE: U1 Operator directs you to OPEN the valve listed in Step 5			
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Performance Step 4: Critical X Not Critical			
5. <b>OPEN</b> 1-FCV-74-101, UNITS 1-2 DISCHARGE CROSSTIE, (Panel 1-9-3).			
andard:			
Simulates engaging handwheel and rotating 1-FCV-74-101 handwheel in the COUNTERCLOCKWISE direction			
AT UNSAT N/ACOMMENTS:			
CUE: When simulated, the handwheel is turning and the valve stem is moving outward (PAUSE), the handwheel is now snug			
UE: U1 Operator directs you to verify OPEN the valves listed in Step 6			
UE: U1 Operator directs you to verify OPEN the valves listed in Step 6  *************************  **rformance Step 5: Critical X Not Critical			
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Performance Step 6:	Critical Not Critical X
	<del>-</del> -
• 1-FCV-74-66, RHR SYS II LF	CI OUTBD INJECT VALVE
Standard:	
Verifies 1-FCV-74-66 valve position indicator in engaging handwheel and rotating handwheel in the state of th	
SAT UNSAT N/ACOMMENTS:	
CUE: If handwheel manipulation simulated	l, handwheel is snug
CUE: JPM complete	

END OF TASK

STOP TIME____