

Facility: ANO UNIT 2 Date of Examination: 2/11/2002
 Exam Level (circle one): RO / SRO(I) / **SRO(U)** Operating Test No.: _1_

B.1 Control Room Systems

System / JPM Title	Type Code*	Safety Function
a. ANO-2-JPM-NRC-CNTCL () 022 A4.03 RO - 3.2/SRO - 3.2 (Containment Cooling System) Ability to manually operate and/or monitor dampers in the CCS in the Control Room.	D/S/A/L	5 Containment Integrity
b. ANO-2-JPM-NRC- () 061 A2.07 RO – 3.4/SRO – 3.5 (Auxiliary Feedwater System) Feed steam generators with Emergency feed water pump and reset EFAS.	M/S/L	4 Heat Removal

B.2 Facility Walk-Through

a. ANO-2-JPM-NRC- () 064 A4.01 RO-4.0/SRO-4.3 Ability to manually operate local or remote operation of EDG.	D/A	6 Electrical
b. ANO-2-JPM-NRC- () 004 A4.08 RO-3.8/SRO-3.8 Ability to manually operate Charging (AOP)	N/R	2 Inventory
c. ANO-2-JPM-NRC- () 012 A4.06 RO-4.3/SRO-4.3 Ability to manually operate Reactor Trip Breakers	D	7 Instrumentation

* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA

JOB PERFORMANCE MEASURE

UNIT: 2 REV #: 000 DATE: _____

SYSTEM/DUTY AREA: Emergency Diesel Generator System

TASK: Control AAC Diesel Engine Fuel Oil Day Tank Level Manually (Alternate Success Path)

JTA#: ANO2AOAACDGOFFNORM24

KA VALUE RO: 4.0 SRO: 4.3 KA REFERENCE: 064 A4.01

APPROVED FOR ADMINISTRATION TO: RO: X SRO: X

TASK LOCATION: INSIDE CR: _____ OUTSIDE CR: X BOTH: _____

SUGGESTED TESTING ENVIRONMENT AND METHOD (PERFORM OR SIMULATE):

PLANT SITE: Simulate SIMULATOR: _____ LAB: _____

POSITION EVALUATED: RO: _____ SRO: _____

ACTUAL TESTING ENVIRONMENT: SIMULATOR: _____ PLANT SITE: _____ LAB: _____

TESTING METHOD: SIMULATE: _____ PERFORM: _____

APPROXIMATE COMPLETION TIME IN MINUTES: 13 Minutes

REFERENCE(S): AOP 2203.012Z, Rev. 01-06-0

EXAMINEE'S NAME: _____ SSN: _____

EVALUATOR'S NAME: _____

THE EXAMINEE'S PERFORMANCE WAS EVALUATED AGAINST THE STANDARDS CONTAINED IN THIS JPM AND IS DETERMINED TO BE:

SATISFACTORY: _____ UNSATISFACTORY: _____

PERFORMANCE CHECKLIST COMMENTS:

Start Time _____ Stop Time _____ Total Time _____

SIGNED: _____ DATE: _____

SIGNATURE INDICATES THIS JPM HAS BEEN COMPARED TO ITS APPLICABLE PROCEDURE BY A QUALIFIED INDIVIDUAL (NOT THE EXAMINEE) AND IS CURRENT WITH THAT REVISION.

JOB PERFORMANCE MEASURE

THE EXAMINER SHALL REVIEW THE FOLLOWING WITH THE EXAMINEE:

The examiner shall review the "Briefing Checklist - System Walkthrough" portion of 1064.023 Attachment 6 with the examinee.

JPM INITIAL TASK CONDITIONS:

The AAC Diesel is loaded to 4400 KW when the FUEL DAY TANK LEVEL LOW alarm annunciates in the Control Room.

TASK STANDARD:

AAC diesel generator fuel oil day tank (2T-11) level has been raised to > 20%.

(ALTERNATE SUCCESS PATH)

TASK PERFORMANCE AIDS:

OP 2203.012Z (2K432-E2)

SIMULATOR SETUP:

NONE

EXAMINER'S NOTES:

JOB PERFORMANCE MEASURE

INITIATING CUE:

The SM/CRS directs, "Correct the cause of the FUEL DAY TANK LEVEL LOW alarm using 2203.012Z (2K432-E2)."

CRITICAL ELEMENTS (C): 3

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
1.	<p>Check local level for the AAC diesel generator day tank (2T-11).</p> <p><u>POSITIVE CUE:</u> The local tank level indicator (2LI-7201B) shows 15%.</p> <p><u>OR</u> On panel 2C442, 2LI-7201A shows 15%.</p> <p><u>OR</u> On the PLC for L7201, observed the fuel oil day tank level shows 15%.</p>	<p>In Engine Room, observed Fuel Oil Day Tank Level on 2LI-7201B shows < 20%.</p> <p><u>OR</u> On Panel 2C442, observed Fuel Oil Day Tank Level (2LI-7201A) indicates < 20%.</p> <p><u>OR</u> On Local Computer for L7201, observed Fuel Oil Day Tank Level shows < 20%.</p>	N/A SAT UNSAT
<p><u>EXAMINER'S NOTE:</u></p> <p>All attempts to start the fuel oil transfer pump should fail. After each start attempt, provide the following cue:</p> <p><u>NEGATIVE CUE:</u> The fuel oil transfer pump does NOT start.</p>			
2.	<p>Control Fuel Oil Transfer Pump (2P-235) manually.</p> <p><u>NEGATIVE CUES:</u> 2HS-7106A on 2C-440 is taken to MANUAL and tank level does not increase.</p> <p>2HS-7106B on 2B116 is taken to MANUAL and tank level does not increase.</p>	<p>On Panel 2C-440, rotated 2HS-7106A to MANUAL.</p> <p><u>OR</u> On 2B161, rotated 2HS-7106B to MANUAL.</p>	N/A SAT UNSAT
<p><u>TRANSITION NOTE:</u></p> <p>Go to the AAC diesel generator engine room.</p>			

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
(C)	3. Open Fuel Oil Header 2T-11 Bypass (2AAC-17). <u>POSITIVE CUE:</u> 2AAC-17 back seat is felt and the valve-operating handle will NOT turn further.	Located 2AAC-17 under day tank 2T-11. Turned 2AAC-17 operating handle CCW to full open position. <u>OR</u> Throttled 2AAC-17 to increase day tank level.	N/A SAT UNSAT
	4. Check Fuel Oil Day Tank (2T-11) level. <u>POSITIVE CUE:</u> 2T-11 level is observed to be increasing on 2LI-7201B. <u>OR</u> 2T-11 level is observed to be increasing on 2LI-7201A.	On 2LI-7201B at 2T-11, observed Fuel Oil Day Tank Level increasing. <u>OR</u> On 2LI-7201A at 2C-442, observed 2T-11 level increasing.	N/A SAT UNSAT
<u>EXAMINER'S NOTE:</u>			
Final tank level is established at the discretion of the examinee providing level is > 20%.			
	5. Throttle or close Fuel Oil Header 2T-11 Bypass (2AAC-17) to maintain Day tank Level >20% <u>POSITIVE CUE:</u> The 2AAC-17 shut seat is felt and valve-operating handle will NOT turn further.	<u>WHEN</u> 2T-11 level is > 20%, rotated 2AAC-17 CW to close. OR When 2T-11 level is >20% throttled 2AAC-17 level to maintain level.	N/A SAT UNSAT
	6. Depress Reset PLC touch-pad <u>POSITIVE CUE:</u> PLC touch-pad depressed	At local computer touch screen depressed the RESET PLC touch-pad.	N/A SAT UNSAT
END			

JOB PERFORMANCE MEASURE

EXAMINEE'S COPY

JPM INITIAL TASK CONDITIONS:

The AAC Diesel is loaded to 4400 KW when the FUEL DAY TANK LEVEL LOW alarm annunciates in the Control Room.

INITIATING CUE:

The SM/CRS directs, "Correct the cause of the FUEL DAY TANK LEVEL LOW alarm using 2203.012Z (2K432-E2)."

JOB PERFORMANCE MEASURE

THE EXAMINER SHALL REVIEW THE FOLLOWING WITH THE EXAMINEE:

The examiner shall review the "Briefing Checklist - System Walkthrough" portion of 1064.023 Attachment 6 with the examinee.

JPM INITIAL TASK CONDITIONS:

Reactor has tripped due to a LOCA. CCAS has failed to actuate automatically.

TASK STANDARD:

Containment Coolers have been placed in Emergency Mode.

This is an alternate success path JPM.

TASK PERFORMANCE AIDS:

2203.003 Rev 005-01-0, Loss of Coolant Accident, Section 1.0, Step 11.

SIMULATOR SETUP:

400 gpm LOCA, CCAS fails to actuate, 2UCD-8216-2 failed closed (ESFDAMP8216).

NOTE: When candidate places handswitch for 2UCD-8216-2 to open, then delete 2UCD-8216-2

Malfunction.

EXAMINER'S NOTES:

JOB PERFORMANCE MEASURE

INITIATING CUE:

The SM/CRS directs, "Manually actuate CCAS per of EOP 2202.003 Section 1 Step 6, then verify CNTMT coolers in Emergency Mode per EOP 2202.003 Section 1 Step 11."

CRITICAL ELEMENTS (C): 1, 3, , 5

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
(C)	1.	Manually actuate CCAS.	Depressed CCAS push buttons on 2C03 or 2C14. Observed CCAS actuated on PPS inserts on 2C03. Trip paths 1&2 if actuated from 2C03 OR trip paths 3&4 if actuated from 2C14.	N/A SAT UNSAT
	2.	Verify CNTMT Cooling fans running. <ul style="list-style-type: none"> • 2VSF-1A • 2VSF-1B • 2VSF-1C • 2VSF-1D <u>POSITIVE CUE:</u> Red lights ON. <u>NEGATIVE CUE:</u> Green lights ON.	On panels 2C16 and 2C17, observed red light On and green light OFF for all four CNTMT cooling fans.	N/A SAT UNSAT
(C)	3.	Verify ALL CNTMT Cooling Bypass dampers open. <ul style="list-style-type: none"> • 2UCD-8209-1 • 2UCD-8203-1 • 2UCD-8222-2 • 2UCD-8216-2 <u>POSITIVE CUE:</u> Red lights ON. <u>NEGATIVE CUE:</u> Green lights ON.	On panels 2C16 and 2C17, observed red lights ON for all dampers except 2UCD-8216-2.	N/A SAT UNSAT
	4.	Report to CRS that damper 2UCD-8216-2 failed to open.	Reported to CRS the failure of 2UCD-8216-2 to open.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
(C)	5.	Open damper 2UCD-8216-2	Placed handswitch on panel 2C16 for 2UCD-8216-2 to OPEN. Observed red light ON and green light OFF above handswitch for 2UCD-8216-2.	N/A SAT UNSAT
	6.	Verify BOTH SW Cooling Outlet valves open. <ul style="list-style-type: none"> • 2CV-1519-1 • 2CV-1513-2 <u>POSITIVE CUE:</u> Red lights ON. <u>NEGATIVE CUE:</u> Green lights ON.	Observed red light ON and green light OFF for 2CV-1519-1 and 2CV-1513-2 on panels 2C16 and 2C17.	N/A SAT UNSAT
	8.	Verify BOTH SW Cooling Inlet valves open. <ul style="list-style-type: none"> • 2CV-1511-1 • 2CV-1510-2 <u>POSITIVE CUE:</u> Red lights ON. <u>NEGATIVE CUE:</u> Green lights ON.	Observed red light ON and green light OFF for 2CV-1511-1 and 2CV-1510-2 on panels 2C16 and 2C17.	N/A SAT UNSAT
END				

JOB PERFORMANCE MEASURE

EXAMINEE'S COPY

JPM INITIAL TASK CONDITIONS:

Reactor has tripped due to a LOCA. CCAS has failed to actuate automatically.

INITIATING CUE:

The SM/CRS directs, "Manually actuate CCAS per 2202.003 Section 1 Step 5, then verify CNTMT coolers in Emergency Mode per 2202.003 Section 1 Step 10."

JOB PERFORMANCE MEASURE

UNIT: 2 REV #: 000 DATE: _____

SYSTEM/DUTY AREA: Emergency Feedwater System

TASK: Shutdown an EFW Train With an EFAS Present (2P7B Secured)

JTA#: ANO2ROEFWNORM19

KA VALUE RO: 3.4 SRO: 3.5 KA REFERENCE: 061 A2.07

APPROVED FOR ADMINISTRATION TO: RO: X SRO: X

TASK LOCATION: INSIDE CR: X OUTSIDE CR: _____ BOTH: _____

SUGGESTED TESTING ENVIRONMENT AND METHOD (PERFORM OR SIMULATE):

PLANT SITE: _____ SIMULATOR: Perform LAB: _____

POSITION EVALUATED: RO: _____ SRO: _____

ACTUAL TESTING ENVIRONMENT: SIMULATOR: _____ PLANT SITE: _____ LAB: _____

TESTING METHOD: SIMULATE: _____ PERFORM: _____

APPROXIMATE COMPLETION TIME IN MINUTES: 15 Minutes

REFERENCE(S): 2106.006 rev. 053-02-0

EXAMINEE'S NAME: _____ SSN: _____

EVALUATOR'S NAME: _____

THE EXAMINEE'S PERFORMANCE WAS EVALUATED AGAINST THE STANDARDS CONTAINED IN THIS JPM AND IS DETERMINED TO BE:

SATISFACTORY: _____ UNSATISFACTORY: _____

PERFORMANCE CHECKLIST COMMENTS:

Start Time _____ Stop Time _____ Total Time _____

SIGNED: _____ DATE: _____

SIGNATURE INDICATES THIS JPM HAS BEEN COMPARED TO ITS APPLICABLE PROCEDURE BY A QUALIFIED INDIVIDUAL (NOT THE EXAMINEE) AND IS CURRENT WITH THAT REVISION.

JOB PERFORMANCE MEASURE

THE EXAMINER SHALL REVIEW THE FOLLOWING WITH THE EXAMINEE:

The examiner shall review the "Briefing Checklist - System Walkthrough" portion of 1064.023 Attachment 6 with the examinee.

JPM INITIAL TASK CONDITIONS:

Mode 3, post reactor trip, EFAS #1 and #2 have actuated. Chemistry has been notified to sample Main Steam to accommodate dose calculations.

TASK STANDARD:

EFW flow has been established to both S/G's using 2P7A and 2P7B has been secured.

TASK PERFORMANCE AIDS:

2202.006 Section 14.0.

SIMULATOR SETUP:

Mode 3, EFAS1 and EFAS2 actuated, S/G levels are ~40%, MFW pumps have been secured, and Main Feed block valves are closed. Fail 2CV 1025-1 closed using component malfunction.

EXAMINER'S NOTES:

JOB PERFORMANCE MEASURE

INITIATING CUE:

The SS/CRS directs, "Secure 'B' Emergency Feedwater Pump (2P7B) due to failure of 2CV 1025-1 to open from the control room and establish EFW flow and restore both steam generator levels to 60% with EFW Pump 2P7A using 2106.006 Section 14.0."

CRITICAL ELEMENTS (C): 1, 2, 6, 7

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
C	1.	<p>Check 2P7A available.</p> <p><u>POSITIVE CUES:</u> Red light is ON above 2CV-0340-2.</p> <p>Pump discharge pressure and speed are normal values.</p>	<p>On Panel 2C17, observed that 2P7A is running.</p> <p>Checked that RED light above handswitch for 2CV-0340-2 is ON.</p> <p><u>AND</u></p> <p>Checked pump speed and discharge pressure are normal values.</p>	N/A SAT UNSAT
C	2.	<p>Override handswitches to OPEN for 2P7A discharge valves.</p> <p><u>POSITIVE CUE:</u> Green lights OFF; red lights ON.</p> <p><u>NEGATIVE CUE:</u> Green lights ON; red lights OFF.</p>	<p>On Panel 2C16, placed handswitches for 2CV-1037-1 and 2CV-1039-1 to OPEN and released.</p> <p>Observed green light OFF; red light ON over handswitches for 2CV-1037-1 and 2CV-1039-1</p> <p><u>AND</u></p> <p>On Panel 2C16, placed handswitches for 2CV-1026-2 and 2CV-1076-2 to OPEN and released.</p> <p>Observed green light OFF; red light ON over handswitches for 2CV-1026-2 and 2CV-1076-2</p>	N/A SAT UNSAT
	3.	<p>Verify feed flow established to 'A' and 'B' SGs.</p> <p>Note: flow rate is dependent on SG pressure.</p> <p><u>POSITIVE CUE:</u> Flow is indicated on 2FIS-0718-2 and 2FIS-0713-2.</p> <p><u>NEGATIVE CUE:</u> Flow is <u>NOT</u> indicated on 2FIS-0718-2 and 2FIS-0713-2.</p>	<p>On Panel 2C16, observed that 2FIS-0718-2 and 2FIS-0713-2 indicate flow.</p>	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS		(Circle One)
<u>EXAMINER'S NOTE:</u>				
Flow rate is discretionary and a function of RCS temperature and SG pressure. The 2P7A speed controller may be used to control pump speed and therefore flow rate to the SGs or the discharge valves may be cycled open or closed to control SG levels.				
	4.	Control SG levels.	On Panel 2C16, cycled discharge valves 2CV- 1026-2 and 2CV-1076-2 to control SG levels. <u>OR</u> Reduced EFW Pump 2P7A speed using speed controller to control SG levels.	N/A SAT UNSAT
	5.	Monitor RCS temperature and pressure during SG refill. <u>POSITIVE CUE:</u> CBOR acknowledges request. Reports RCS temperature stable at $\approx 547^{\circ}\text{F}$. <u>AND</u> PZR pressure controlling at ≈ 2200 psia.	Requested Control Board Operator to monitor for abnormal decrease in RCS temperature and PZR pressure using installed T_c , T_h and T_{ave} meters. <u>OR</u> Used SPDS or Plant Computer to monitor RCS temperatures and PZR pressure.	N/A SAT UNSAT
<u>EXAMINER'S NOTE:</u>				
The simulator only has Panel 2C40 hardware. The reset will be accomplished in 2C40 only.				
(C)	6.	Reset EFAS lockout relays on 2C39 and 2C40. <u>POSITIVE CUE:</u> Red lights ON above EFAS-1 and EFAS-2 pushbutton.	When SG levels above 25.0%, depressed reset pushbuttons for EFAS-1 and EFAS-2 on Panel 2C40. <u>AND</u> Observed Red lights ON above the EFAS-1 and EFAS-2 pushbuttons.	N/A SAT UNSAT
(C)	7.	Secure 2P7B. <u>POSITIVE CUE:</u> Green light ON; red light OFF. <u>NEGATIVE CUE:</u> Green light OFF; red light ON.	On Panel 2C17, turned handswitch for 2P7B to Normal-After-Stop. <u>OR</u> Placed handswitch for 2P7B in Pull-To-Lock. Observed green light ON, red light OFF above handswitch for 2P7B.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
8.	Verify 2CV-1036-2 and 2CV-1038-2 OPEN. <u>POSITIVE CUE:</u> Red light is ON and Green light is OFF above handswitches for 2CV-1036-2 and 2CV-1038-2.	On Panel 2C17, placed handswitches for 2CV-1036-2 and 2CV-1038-2 to OPEN. On Panel 2C17, observed that Red light is ON and Green light is OFF above handswitches for 2CV-1036-2 and 2CV-1038-2.	N/A SAT UNSAT
NOTE: When asked by examinee, report as CRS that 2CV 1025-1 had previously been cycled open and closed with 2CV 1036-2 open by the WCO and there is no need to cycle it again.			
9.	Verify 2CV-1075-1 OPEN. <u>POSITIVE CUE:</u> Red light is ON and Green light is OFF above handswitch for 2CV-1075-1.	On Panel 2C17, placed handswitch for 2CV-1075-1 to OPEN On Panel 2C17, observed that Red light is ON and Green light is OFF above handswitch for 2CV-1075-1.	N/A SAT UNSAT
10.	Close 2CV-1075-1. <u>POSITIVE CUE:</u> Green light is ON and Red light is OFF above handswitch for 2CV-1075-1.	On Panel 2C17, placed handswitch for 2CV-1075-1 to CLOSE. On Panel 2C17, observed that Green light is ON and Red light is OFF above handswitch for 2CV-1075-1.	N/A SAT UNSAT
END			

JOB PERFORMANCE MEASURE**EXAMINEE'S COPY****JPM INITIAL TASK CONDITIONS:**

Mode 3, post reactor trip, EFAS #1 and #2 have actuated. Chemistry has been notified to sample Main Steam to accommodate dose calculations.

INITIATING CUE:

The SS/CRS directs, "Secure 'B' Emergency Feedwater Pump (2P7B) due to failure of 2CV-1025-1 to open from the control room and establish EFW flow and restore both steam generator's level to 60% with EFW Pump 2P7A using 2106.006 Section 14.0."

JOB PERFORMANCE MEASURE

UNIT: 2 REV #: 000 DATE: _____

SYSTEM/DUTY AREA: Chemical and Volume Control System

TASK: Operate Charging Pump 2P36B Locally During Alternate Shutdown

JTA#: ANO2ROCVCSOFFNORM46

KA VALUE RO: 3.8 SRO: 3.4 KA REFERENCE: 004 A4.08

APPROVED FOR ADMINISTRATION TO: RO: X SRO: X

TASK LOCATION: INSIDE CR: _____ OUTSIDE CR: X BOTH: _____

SUGGESTED TESTING ENVIRONMENT AND METHOD (PERFORM OR SIMULATE):

PLANT SITE: Simulate SIMULATOR: _____ LAB: _____

POSITION EVALUATED: RO: _____ SRO: _____

ACTUAL TESTING ENVIRONMENT: SIMULATOR: _____ PLANT SITE: _____ LAB: _____

TESTING METHOD: SIMULATE: _____ PERFORM: _____

APPROXIMATE COMPLETION TIME IN MINUTES: 20 Minutes

REFERENCE(S): AOP 2203.014, Rev. 14-06-0

EXAMINEE'S NAME: _____ SSN: _____

EVALUATOR'S NAME: _____

THE EXAMINEE'S PERFORMANCE WAS EVALUATED AGAINST THE STANDARDS CONTAINED IN THIS JPM AND IS DETERMINED TO BE:

SATISFACTORY: _____ UNSATISFACTORY: _____

PERFORMANCE CHECKLIST COMMENTS:

Start Stop Total Time
Time Time _____
_____ _____

SIGNED: _____ DATE: _____

SIGNATURE INDICATES THIS JPM HAS BEEN COMPARED TO ITS APPLICABLE PROCEDURE BY A QUALIFIED INDIVIDUAL (NOT THE EXAMINEE) AND IS CURRENT WITH THAT REVISION.

JOB PERFORMANCE MEASURE

THE EXAMINER SHALL REVIEW THE FOLLOWING WITH THE EXAMINEE:

The examiner shall review the "Briefing Checklist - System Walkthrough" portion of 1064.023 Attachment 6 with the examinee.

JPM INITIAL TASK CONDITIONS:

The control room has been evacuated as required by 2203.014, "Alternate Shutdown". Simulate obtaining keys, handheld radio and flashlight from the alternate shutdown locker. Enter controlled access, if necessary, using normal ingress and egress methods and follow all normal procedural controls for radiological, security and other concerns during the performance of this JPM.

TASK STANDARD:

Charging pump (2P36B) has been started from breaker 2B62-A5.

TASK PERFORMANCE AIDS:

2203.014, Alternate Shutdown Section 6, RO 2 Follow-up Actions. Mark through steps 1, 2, 3 and 4 to indicate completion.

SIMULATOR SETUP:

None.

EXAMINER'S NOTES:

JOB PERFORMANCE MEASURE

INITIATING CUE:

The SM/CRS directs, "Perform applicable steps of Alternate Shutdown AOP for RO2, Section 6. Steps 1 through 4 have been completed."

CRITICAL ELEMENTS (C): 3, 4, 6, 8, 9, 10

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
<p>NOTE: Examinee will enter RCA by normal means. The following actions are performed on the 354' elevation of the auxiliary building.</p>			
1.	<p>Open breakers 2B62-E4, power to 2CV-4840-2 and 2B62-F2, power to 2CV-4950-2.</p> <p><u>POSITIVE CUE</u></p> <p>Breaker 2B62-E4 is open. Green light is on.</p> <p>Breaker 2B62-F2 is open. Green light is on.</p>	<p>At MCC 62, open breakers 2B62-E4, power to 2CV-4840-2 and 2B62-F2, power to 2CV 4950-2.</p> <p>Observed green light ON for 2B62-E4, and 2B62-F2.</p>	N/A SAT UNSAT
2.	<p>Inform RO 1 on radio that power has been removed from 2CV-4950-2.</p> <p>Give the following response when contacted as RO 1: "Understand RWT Suction To Charging Pumps Valve 2CV-4950-2 is de-energized (RO1 step 6)."</p>	<p>Contacted RO 1 by radio and inform that RWT Suction To Charging Pumps valve 2CV-4950-2 is de-energized (RO1 step 6).</p>	N/A SAT UNSAT
<p align="center">NOTE:</p> <p>The following actions are performed on the 354' elevation of the auxiliary building in the Upper South Piping Penetration Room (USPPR). Area around 2CV 4840-2 may be contaminated, so actions to verify valve closed may need to be done from a distance away from the valve.</p>			

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
C	3.	<p>Verify 2CV-4840-2 is OPEN.</p> <p><u>POSITIVE CUE:</u> 2CV 4840-2 is OPEN.</p>	<p>In the USPPR, verified 2CV-4840-2 is OPEN by one of the following methods:</p> <p>Manual engagement lever would be depressed and handwheel taken to the open direction until valve travel stopped.</p> <p><u>AND/OR</u></p> <p>Verify that pointer on valve indicates open.</p> <p><u>AND/OR</u></p> <p>Screw threads on the valve stem are at the upper part of the gland packing area (the shiny part of the stem is exposed).</p>	N/A SAT UNSAT
<p>NOTE:</p> <p>After transitioning out of USPPR, Give the following message: “ RO 1 reports on the radio that the BAMT Gravity Feed Outlet valves, 2CV-4920-1 and 2CV-4921-1 are de-energized.”</p> <p>The Examinee with then transition to the 386’ of the RCA to the Boric Acid Tank Room.</p>				
C	4.	<p>Verify 2CV-4920-1 and 2CV-4921-1 are OPEN.</p> <p><u>POSITIVE CUE:</u> 2CV-4920-1 and 2CV-4921-1 are OPEN.</p>	<p>In Boric Acid Tank Room under each Boric Acid Tank, verified 2CV-4920-1 and 2CV-4921-1 are OPEN by one of the following methods on each valve:</p> <p>Manual engagement lever would be depressed and handwheel taken to the open direction until valve travel stopped.</p> <p><u>AND/OR</u></p> <p>Verify that pointer on valve indicates open.</p> <p><u>AND/OR</u></p> <p>Screw threads on the valve stem are at the upper part of the gland packing area (the shiny part of the stem is exposed).</p>	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
	5.	<p>Inform CRS on radio that BAM Tank Gravity Feed Outlet Valves are OPEN (CRS step 19).</p> <p>Give the following response when contacted as CRS: "Understand BAM Tank Gravity Feed Outlet Valves are OPEN (CRS step 19)."</p>	<p>Contact CRS on radio and inform that BAM Tank Gravity Feed Outlet Valves are OPEN (CRS step 19).</p> <p>N/A SAT UNSAT</p>
<p>NOTE:</p> <p>Inform the examinee that steps 10 and 11 of section 6 will NOT be performed as part of this JPM. Provide the following message: "CRS reports that the VCT outlet valve 2CV-4873-1 has been de-energized."</p> <p>NOTE:</p> <p>This valve, 2CV 4873-2 is located on 354' level of the RCA inside the VCT room and is in a locked high radiation area. DO NOT ALLOW ENTRY. Discuss how valve would be verified closed, if entry were made, when outside the room.</p>			
C	6.	<p>Verify VCT Outlet Valve 2CV-4873-1 is closed.</p> <p><u>POSITIVE CUE:</u> 2CV 4873-1 is CLOSED.</p>	<p>On 354' level inside VCT room, verified 2CV-4873-1 CLOSED by one of the following methods:</p> <p>DISCUSS ONLY</p> <p>Manual engagement lever would be depressed and handwheel taken to the open direction until valve travel stopped.</p> <p><u>AND/OR</u></p> <p>Verify that pointer on valve indicates open.</p> <p><u>AND/OR</u></p> <p>Screw threads on the valve stem are at the upper part of the gland packing area (the shiny part of the stem is exposed).</p> <p>N/A SAT UNSAT</p>
	7.	<p>Verify VCT Makeup Isolation Valve 2CV-4941-2 maintained CLOSED.</p> <p><u>POSITIVE CUE:</u> 2CV-4941-2 is CLOSED.</p>	<p>On 354' level outside VCT Room, verified 2CV-4941-2 is maintained CLOSED by:</p> <p>Closing Instrument Air Supply valve.</p> <p><u>AND</u></p> <p>Venting air pressure off supply regulator.</p> <p>N/A SAT UNSAT</p>

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS		(Circle One)
<p>NOTE:</p> <p>Inform the examinee that Steps 14 and 15 of Section 6 will NOT be performed as part of this JPM.</p> <p>MCC 62 is located on 354' elevation of the RCA.</p> <p>Provide the following message when at MCC 62: "2P36B is not running, green light is lit on 2B62-A5."</p>				
	8.	<p>Inform TSC that 2P36B is not running.</p> <p>When TSC is contacted provide the following:</p> <p>"Understand Charging Pump 2P36B is not running. Start Charging Pump 2P36B."</p>	<p>At breaker 2B62-A5, observed Green light and informed the TSC Charging Pump 2P36B is NOT running.</p>	N/A SAT UNSAT
C	9.	<p>Place local/remote handswitch (2HS-4843-2) for 2P36B to LOCAL.</p> <p><u>POSITIVE CUE:</u></p> <p>Local/remote handswitch in LOCAL.</p>	<p>At breaker 2B62-A5, rotated local/remote handswitch (2HS-4843-2) to LOCAL.</p>	N/A SAT UNSAT
C	10.	<p>Start Charging Pump (2P36B).</p> <p><u>POSITIVE CUE:</u></p> <p>Red light ON; green light OFF.</p> <p><u>NEGATIVE CUE:</u></p> <p>Green light ON; red light OFF.</p>	<p>At breaker 2B62-A5, rotated start/stop handswitch (2HS-4844-2) to START.</p> <p>Observed red light ON, green light OFF.</p>	N/A SAT UNSAT
END				

JOB PERFORMANCE MEASURE

EXAMINEE'S COPY

JPM INITIAL TASK CONDITIONS:

The control room has been evacuated as required by 2203.014, "Alternate Shutdown". Simulate obtaining keys, handheld radio and flashlight from the alternate shutdown locker. Enter controlled access, if necessary, using normal ingress and egress methods and follow all normal procedural controls for radiological, security and other concerns during the performance of this JPM.

INITIATING CUE:

The SM/CRS directs, "Perform applicable steps of Alternate Shutdown AOP for RO2, Section 6. Steps 1 through 4 have been completed."

JOB PERFORMANCE MEASURE

UNIT: 2 REV #: 000 DATE: _____

SYSTEM/DUTY AREA: CEDM Control System

TASK: Test TCB2

JTA#: ANO2ROCEDMSURV15

KA VALUE RO: 4.3 SRO: 4.3 KA REFERENCE: 012 A4.06

APPROVED FOR ADMINISTRATION TO: RO: X SRO: X

TASK LOCATION: INSIDE CR: _____ OUTSIDE CR: _____ BOTH: X

SUGGESTED TESTING ENVIRONMENT AND METHOD (PERFORM OR SIMULATE):

PLANT SITE: Simulate SIMULATOR: _____ LAB: _____

POSITION EVALUATED: RO: _____ SRO: _____

ACTUAL TESTING ENVIRONMENT: SIMULATOR: _____ PLANT SITE: _____ LAB: _____

TESTING METHOD: SIMULATE: _____ PERFORM: _____

APPROXIMATE COMPLETION TIME IN MINUTES: 20 Minutes

REFERENCE(S): 2105.009, Rev. 020-07-0 and 2102.002 Rev 050-02-0

EXAMINEE'S NAME: _____ SSN: _____

EVALUATOR'S NAME: _____

THE EXAMINEE'S PERFORMANCE WAS EVALUATED AGAINST THE STANDARDS CONTAINED IN THIS JPM AND IS DETERMINED TO BE:

SATISFACTORY: _____ UNSATISFACTORY: _____

PERFORMANCE CHECKLIST COMMENTS:

Start Time _____ Stop Time _____ Total Time _____

SIGNED: _____ DATE: _____

SIGNATURE INDICATES THIS JPM HAS BEEN COMPARED TO ITS APPLICABLE PROCEDURE BY A QUALIFIED INDIVIDUAL (NOT THE EXAMINEE) AND IS CURRENT WITH THAT REVISION.

JOB PERFORMANCE MEASURE

THE EXAMINER SHALL REVIEW THE FOLLOWING WITH THE EXAMINEE:

The examiner shall review the "Briefing Checklist - System Walkthrough" portion of 1064.023 Attachment 6 with the examinee.

JPM INITIAL TASK CONDITIONS:

The plant is in Mode 5 and preparations are being made for heatup. The Reactor Trip Circuit Breakers (TCB's) are open. TCB 9 is closed. All reactor trip signals are clear. Both MG sets are running. The requirements of TCB/CEDMCS Status Log (OPS-B26) are satisfied.

TASK STANDARD:

TCB 2 tested. (Complete 2105.009 Supplement 1 steps 2.1 & 2.2 for TCB 2)

TASK PERFORMANCE AIDS:

OP2105.009 Supplement 1 and 2102.002 Exhibit 1

SIMULATOR SETUP:

None.

EXAMINER'S NOTES:

JOB PERFORMANCE MEASURE

INITIATING CUE:

The SM/CRS directs, "Test TCB 2 using 2105.009 Supplement 1."

CRITICAL ELEMENTS (C): 1, 2, 5, 11

START TIME: _____

PERFORMANCE CHECKLIST		STANDARDS		(Circle One)
<u>TRANSITION NOTE</u>				
Proceed to Reactor Trip Circuit Breaker Panel area on 404' elevation of the RAB.				
(C)	1.	Verify Undervoltage Trip Device Armature in contact with Air Gap Adjustment Screw for TCB 2. <u>POSITIVE CUE:</u> Undervoltage Trip Device Armature is in contact with Air Gap Adjustment Screw for TCB 2. <u>NEGATIVE CUE:</u> Undervoltage Trip Device Armature is NOT in contact with Air Gap Adjustment Screw for TCB 2.	Opens breaker door. Using 2102.002 Exhibit 1, observed Undervoltage Trip Device Armature in contact with Air Gap Adjustment Screw for TCB 2..	N/A SAT UNSAT
<u>TRANSITION NOTE</u>				
Proceed to Unit Two Control Room, elevation 386' RAB.				
(C)	2.	Unlock PPS trip path reset keylock and close TCB 2 using pushbutton on 2C23. <u>POSITIVE CUE:</u> TCB 2 is closed. <u>NEGATIVE CUE:</u> TCB 2 is open.	Obtains trip path reset key from Shift Manager. Inserts key into trip path reset keylock. Unlocks trip path. Closes TCB 2 using pushbutton on 2C23. Observes TCB 2 indication on mimic panel above 2C-23 red light on and green light off.	N/A SAT UNSAT
	3.	Lock PPS trip path reset and remove key. <u>POSITIVE CUE:</u> Trip path reset is locked and key is removed.	Locks trip path. Removes key.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS		(Circle One)
<u>TRANSITION NOTE</u>				
Proceed to Reactor Trip Circuit Breaker Panel area on 404' elevation of the RAB.				
	4.	Verify TCB 2 closed per step 2.1. <u>POSITIVE CUE:</u> TCB 2 is closed. <u>NEGATIVE CUE:</u> TCB is open.	Observes TCB 2 local breaker position red light on and green light off <u>AND/OR</u> Mechanical breaker position closed.	N/A SAT UNSAT
(C)	5.	Hold 2HS/TEST in UV Bypass position. <u>POSITIVE CUE:</u> 2HS/TEST in UV Bypass position. <u>NEGATIVE CUE:</u> 2HS/TEST not in the UV Bypass position.	Holds switch 2HS/TEST to the UV Bypass position.	N/A SAT UNSAT
	6.	Momentarily depress Reactor Trip pushbutton (2HS-9071-2) on 2C03. <u>POSITIVE CUE:</u> Operator in the Control Room acknowledges direction.	Using proper communications techniques, directs Operator in the Control Room to open TCB 2 by momentarily depressing Reactor Trip pushbutton (2HS-9071-2) on 2C03.	N/A SAT UNSAT
	7.	Verify TCB opens. <u>POSITIVE CUE:</u> TCB 2 is open.	Observes TCB 2 local breaker position red light on and green light off <u>AND/OR</u> Mechanical breaker position closed.	N/A SAT UNSAT
	8.	Check 2K12-A10 alarm comes in or re-flashes. <u>POSITIVE CUE:</u> Operator in the control room acknowledges direction and reports the alarm window 2K12-A10 indicates breaker tripped.	Using proper communications techniques, directs Operator in Control Room to check 2K12-A10 alarm comes in or re-flashes.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
	9. Release 2HS/TEST switch. <u>POSITIVE CUE:</u> 2HS/TEST in normal position. <u>NEGATIVE CUE:</u> 2HS/TEST not in normal position.	Releases switch 2HS/TEST to the normal position.	N/A SAT UNSAT
<u>NOTE TO INSTRUCTOR</u>			
It is not necessary to require the student to return to the control room to re-close the TCB. The student performed this action in step 3 & 4 above. The student should direct control room operators to perform this action.			
	10. Verify TCB 2 closed per step 2.1. <u>POSITIVE CUE:</u> TCB 2 is closed. <u>NEGATIVE CUE:</u> TCB is open.	Using proper communications techniques, directs Operator in the Control Room to CLOSE TCB 2. Observes TCB 2 local breaker position red light on and green light off <u>AND/OR</u> Mechanical breaker position closed.	N/A SAT UNSAT
(C)	11. Hold 2XS/TEST in Shunt Bypass position. <u>POSITIVE CUE:</u> 2HS/TEST in Shunt Bypass position. <u>NEGATIVE CUE:</u> 2HS/TEST not in the Shunt Bypass position.	Holds switch 2HS/TEST to the Shunt Bypass position.	N/A SAT UNSAT
	12. Momentarily depress Reactor Trip pushbutton (2HS-9071-2) on 2C03. <u>POSITIVE CUE:</u> Operator in Control Room acknowledges direction.	Using proper communications techniques, directs Operator in Control Room to open TCB 2 by momentarily depressing Reactor Trip pushbutton (2HS-9071-2) on 2C03.	N/A SAT UNSAT
	13. Verify TCB opens. <u>POSITIVE CUE:</u> TCB 2 is open.	Observes TCB 2 local breaker position red light on and green light off and/or mechanical breaker position closed.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
14.	<p>Check 2K12-A10 alarm comes in or re-flashes.</p> <p><u>POSITIVE CUE:</u> Operator in the control room acknowledges direction and reports the alarm window 2K12-A10 indicates breaker tripped.</p>	<p>Using proper communications techniques, directs Operator in Control Room to check 2K12-A10 alarm comes in or re-flashes.</p>	N/A SAT UNSAT
15.	<p>Release 2HS/TEST switch.</p> <p><u>POSITIVE CUE:</u> 2HS/TEST in normal position.</p> <p><u>NEGATIVE CUE:</u> 2HS/TEST not in normal position.</p>	<p>Releases switch 2HS/TEST to normal position.</p>	N/A SAT UNSAT
END			

STOP TIME: _____

JOB PERFORMANCE MEASURE

Examinee's Copy

JPM INITIAL TASK CONDITIONS:

The plant is in Mode 5 and preparations are being made for heatup.
The Reactor Trip Circuit Breakers (TCB's) are open.
TCB 9 is closed.
All reactor trip signals are clear.
Both MG sets are running.
The requirements of TCB/CEDMCS Status Log (OPS-B26) are satisfied.

INITIATING CUE:

The SM/CRS directs, "Test TCB 2 using 2105.009 Supplement 1."