

Facility: <u>ANO UNIT 2</u>		Date of Examination: <u>2/11/2002</u>
Exam Level (circle one): <u>RO</u> / SRO(I) / SRO(U)		Operating Test No.: <u>1</u>
B.1 Control Room Systems		
System / JPM Title	Type Code*	Safety Function
a. ANO-2-JPM-NRC-BMSRM 068 A3.02 RO-3.6/SRO-3.6 Ability to monitor automatic operation of the LRS including automatic isolations.	D/C	9 Radioactivity Release
b. ANO-2-JPM-NRC-EDG02 064 A4.07 RO - 3.4/SRO - 3.4 (Emergency Diesel Generator) Ability to manually operate and/or monitor in the Control Room transfer of EDG (with load) to grid.	D/S/A	6 Electrical
c. ANO-2-JPM-NRC-CNRCL 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
d. 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
e. ANO-2-JPM-NRC- 010 A4.01 RO - 3.7/SRO - 3.5 Ability to manually operate and/or monitor Pzr Spray valve in the Control Room.	D/S	3 Pressure
f. ANO-2-JPM-NRC- 001 AA4.01 RO - 3.1/SRO - 2.9 Ability to manually operate and/or monitor controls for CCWS in the control room.	N/S	1 Reactivity
g. ANO-2-JPM-NRC-RCP02 008 AA4.01 RO - 3.3/SRO - 3.1 (Component Cooling Water) Ability to manually operate and or monitor in the control room CCW indications and controls.	M/S/A/L	8 Plant Services
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

UNIT: 2 REV #: 001 DATE: _____

SYSTEM/DUTY AREA: Process Radiation Monitoring System

TASK: Perform BMS Liquid Discharge Radiation Monitor Functional Check

JTA#: ANO2WCOLRWBMSNORM21

KA VALUE RO: 3.6 SRO: 3.6 KA REFERENCE: 068 A3.02

APPROVED FOR ADMINISTRATION TO: RO: X SRO: _____

TASK LOCATION: INSIDE CR: X OUTSIDE CR: _____ 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: 7 Minutes

REFERENCE(S): 2104.014 Rev 032-06-0

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:

2T21A Liquid Radwaste Release Permit, 2104.014 Supplement 1, is completed through step 4.0. A Waste Control Operator (WCO) is available at 2C112.

TASK STANDARD:

Functional Test has been completed on 2RITS-2330.

TASK PERFORMANCE AIDS:

2104.014 Supplement 1 Step 5.0

EXAMINER'S NOTE:

JOB PERFORMANCE MEASURE

INITIATING CUE:

The SM/CRS directs, "Perform the functional test of the BMS Liquid Discharge Radiation Monitor using 2104.014 Supplement 1, Step 5.0."

CRITICAL ELEMENTS (C): 4, 6, 10, 11

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
	1. Direct WCO to verify 2P-53A/B Discharge to Circ Water Flume (2LRW-13) is closed. <u>POSITIVE CUE:</u> WCO reports 2LRW-13 is closed.	Directed the WCO to verify 2LRW-13 is closed.	N/A SAT UNSAT
	2. Direct WCO to verify 2P47A/B Discharge to Circ Water Flume (2BM-35) is closed. <u>POSITIVE CUE:</u> WCO reports 2BM-35 is closed.	Directed the WCO to verify 2BM-35 is closed.	N/A SAT UNSAT
	3. Direct WCO to verify 2F11/11A Disch to CW Flume (2LRW-24) is closed. <u>POSITIVE CUE:</u> WCO reports 2LRW-24 is closed.	Directed the WCO to verify 2LRW-24 is closed.	N/A SAT UNSAT
(C)	4. Hold 2RITS-2330 Selector Switch in CHECK SOURCE. <u>POSITIVE CUE:</u> Switch in CHECK SOURCE. <u>NEGATIVE CUE:</u> Switch in OPERATE.	On panel 2C25, held 2RITS-2330 Selector Switch in CHECK SOURCE.	N/A SAT UNSAT
	5. Verify 2RITS-2330 meter moves up scale. <u>POSITIVE CUE:</u> Meter moved up scale.	On panel 2C25, verified 2RITS-2330 indication moved up scale.	N/A SAT UNSAT
(C)	6. Return 2RITS-2330 Selector Switch to OPERATE. <u>POSITIVE CUE:</u> Switch to OPERATE. <u>NEGATIVE CUE:</u> Switch in CHECK SOURCE.	On panel 2C25, placed 2RITS-2330 Selector Switch to OPERATE.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARD	(Circle One)
	7. Verify 2RITS-2330 meter reading returns to normal. <u>POSITIVE CUE:</u> Meter returns to normal.	On panel 2C25, verified 2RITS-2330 meter reading returned to original level.	N/A SAT UNSAT
	8. Direct WCO to open LRW/BMS Discharge to Circ Water Flume valve(s) (2CV-2330A and/or 2CV-2330B). <u>POSITIVE CUE:</u> WCO reports 2CV-2330A and/or 2CV-2330B are open.	Directed WCO to open 2CV-2330A and/or 2CV-2330B.	N/A SAT UNSAT
<u>EXAMINER'S NOTE:</u>			
Provide the following cue: <u>POSITIVE CUE:</u> Setpoint from Preliminary Report = "2E1".			
	9. Determine dial setting to be used from "Radiation Monitor Alarm Setpoint Table" using setpoint from Preliminary Report.	From "Radiation Monitor Alarm Setpoint Table" determined that Preliminary Report setpoint of 2E1 equal dial setpoint of 0.51.	N/A SAT UNSAT
(C)	10. Release 2RE-2330 potentiometer stop AND adjust dial to setting of 0.51.	On panel 2C25, released 2RE-2330 potentiometer stop AND adjusted dial setting of 0.51.	N/A SAT UNSAT
(C)	11. Place 2RE-2330 Selector Switch in PULSE CAL. <u>POSITIVE CUE:</u> Switch in PULSE CAL. <u>NEGATIVE CUE:</u> Switch in OPERATE.	On panel 2C25, placed 2RE-2330 Selector Switch in PULSE CAL.	N/A SAT UNSAT
	12. Direct WCO to verify annunciator 2K14-B1 "LIQUID RADWASTE DISCHARGE RADIATION HIGH" is actuated on Panel 2C112. <u>POSITIVE CUE:</u> 2K14-B1 is actuated.	Directed WCO to verify annunciator 2K14-B1 actuated on 2C112.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
13.	Verify annunciator 2K11-C10 "PROC LIQUID RADIATION HI/LO" is actuated on Panel 2C14. <u>POSITIVE CUE:</u> 2K11-C10 is actuated.	On panel 2C14, verified 2K11-C10 is actuated on Panel 2C14.	N/A SAT UNSAT
14.	Direct WCO to verify LRW/BMS Discharge to Circ Water Flume (2CV-2330A and/or 2CV-2330B) are closed. <u>POSITIVE CUE:</u> WCO reports 2CV-2330A and/or 2CV-2330B are closed.	Directed WCO to verify 2CV-2330A and/or 2CV-2330B are closed.	N/A SAT UNSAT
15.	Reset 2RE-2330 and place in OPERATE. <u>POSITIVE CUE:</u> High Alarm light OFF; Channel Test light OFF.	On panel 2C25, placed the Operation Selector switch to RESET. Observed High Alarm light OFF. Placed the Operation Selector switch to OPERATE. Observed the Channel Test light OFF.	N/A SAT UNSAT
16.	Verify valve(s) tested have reopened. <u>POSITIVE CUE:</u> WCO reports 2CV-2330A and/or 2CV-2330BB open.	Directed WCO to verify 2CV-2330A and/or 2CV-2330B open.	
17.	Check associated alarms clear. <u>POSITIVE CUE:</u> 2K11-C10 and 2K14-B1 are in "slow flash".	On panel 2C14, verified 2K11-C10 is in "slow flash" OR NOT illuminated. Directed WCO to verify annunciator 2K14-B1 on 2C112 is in "slow flash" OR NOT illuminated.	N/A SAT UNSAT
END			

JOB PERFORMANCE MEASURE

EXAMINEE'S COPY

JPM INITIAL TASK CONDITIONS:

2T21A Liquid Radwaste Release Permit, OP 2104.014 Supplement 1, is completed through step 4.0. A

Waste Control Operator (WCO) is available at 2C112.

INITIATING CUE:

The SM/CRS directs, "Perform the functional test of the BMS Liquid Discharge Radiation Monitor using 2104.014 Supplement 1, Step 5.0."

JOB PERFORMANCE MEASURE

UNIT: 2 REV #: 000 DATE: _____

SYSTEM/DUTY AREA: Control Rod Drive Cooling

TASK: Start 'B' CEDM Cooling Fan and Secure 'C' CEDM Cooling Fan

JTA#: ANO2ROCVENTNORM12

KA VALUE RO: 3.1 SRO: 2.9 KA REFERENCE: 001 A4.01

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: 8 Minutes

REFERENCE(S): 2104.033 Rev. 041-03-0

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:

2VSF-35C trips it's breaker periodically due to motor degradation. System Engineering recommends "using it for emergency use only" for the rest of the cycle.

TASK STANDARD:

2VSF-35B has been placed in service and 2VSF-35C has been secured.

TASK PERFORMANCE AIDS:

2104.033 Rev 41-03-0 Section 9.0.

SIMULATOR SETUP:

2VSF-35A, 2VSF-35C, and 2VSF-35D are running in normal alignment with 2VSF-35B secured.

EXAMINER'S NOTES:

JOB PERFORMANCE MEASURE

INITIATING CUE:

The SM/CRS directs, "Place 2VSF-35B in service and secure 2VSF-35C using procedure 2104.033 Section 9.0."

CRITICAL ELEMENTS (C): 1, 2, 3, 4, 5

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
(C)	1.	Open 2VSF-35B Chilled Water Inlet valve 2CV-3849. <u>POSITIVE CUE:</u> Red light ON. <u>NEGATIVE CUE:</u> Green light ON.	On Panel 2C22, placed handswitch for 2CV-3849 to OPEN position. Observed Red light ON and Green light OFF for 2CV-3849.	N/A SAT UNSAT
(C)	2.	Open damper 2HCD-8311 (2VSF-35B to 2VSF35C header). <u>POSITIVE CUE:</u> Red lights ON. <u>NEGATIVE CUE:</u> Green lights ON.	On Panel 2C22, placed handswitch for 2HCD-8311 to OPEN position. Observed Red light ON and Green light OFF for 2HCD-8311.	N/A SAT UNSAT
(C)	3.	Start 2VSF-35B. <u>POSITIVE CUE:</u> Red light ON. <u>NEGATIVE CUE:</u> Green light ON.	On Panel 2C22, placed handswitch for 2VSF-35B to Normal After Start position. Observed Red light ON and Green light OFF for 2VSF-35B.	N/A SAT UNSAT
(C)	4.	Stop 2VSF-35C. <u>POSITIVE CUE:</u> Green light ON. <u>NEGATIVE CUE:</u> Red light ON.	On Panel 2C22, placed handswitch for 2VSF-35C to Normal After Stop position. Observed Green light ON and Red light OFF for 2VSF-35C.	N/A SAT UNSAT
(C)	5.	Verify damper 2HCD-8252 closed. <u>POSITIVE CUE:</u> Green light ON. <u>NEGATIVE CUE:</u> Red light ON.	On Panel 2C22, placed handswitch for 2UCD-8252 to CLOSED position. Observed Green light ON and Red light OFF above handswitch for 2HCD-8252.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
6.	<p>Close Chilled Water to 2VCC-16C valve 2CV-3860.</p> <p><u>POSITIVE CUE:</u> Green light ON.</p> <p><u>NEGATIVE CUE:</u> Red light ON.</p>	<p>On Panel 2C22, placed handswitch for 2CV-3860 to CLOSED position.</p> <p>Observed Green light ON and RED light OFF for 2CV-3860.</p>	N/A SAT UNSAT
7.	<p>Verify CEDM Cooling Coil Water Flow Low alarms for operating units clear. (This is a common alarm for all the coolers.)</p> <p><u>POSITIVE CUE:</u> 2K13 C-4 is clear.</p> <p><u>NEGATIVE CUE:</u> 2K13 C-4 is in fast flash.</p>	<p>On Annunciator Panel 2K13, verified window C-4, CEDM Cooling Coil Water Flow Low is clear.</p> <p>Observed annunciator window 2K13 C-4 is clear or slow flashing.</p>	N/A SAT UNSAT
8.	<p>Verify CEDM Supply Fan A, B and D Low Flow alarms are clear.</p> <p><u>POSITIVE CUE:</u> 2K13 C-3, C-5 and D-2 alarm windows are clear.</p> <p><u>NEGATIVE CUE:</u> 2K13 D-2, 2VSF-35B low flow alarm window is in fast flash.</p>	<p>On Annunciator Panel 2K13, verify windows, C-3, C-5, and D-2 CEDM Supply Fan Low Flow alarms are clear.</p> <p>Observed annunciator window 2K13 C-4 is clear or slow flashing.</p>	N/A SAT UNSAT
END			

JOB PERFORMANCE MEASURE

EXAMINEE'S COPY

JPM INITIAL TASK CONDITIONS:

2VSF-35C trips it's breaker periodically due to motor degradation. System Engineering recommends "using it for emergency use only" for the rest of the cycle.

INITIATING CUE:

The SM/CRS directs, "Place 2VSF-35 B in service and secure 2VSF-35C using procedure 2104.033 Section 9.0."

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 #: 001 DATE: _____

SYSTEM/DUTY AREA: Emergency Diesel Generator System

TASK: Load the Diesel Generator

JTA#: ANO2ROEDGSURV19

KA VALUE RO: 3.4 SRO: 3.4 KA REFERENCE: 064 A4.07

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: 10 Minutes

REFERENCE(S): 2104.036 Rev 045-03-0

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:

2DG1 running unloaded at 60 Hz and 4160 volts. 2104.036 Section 9.0 has been completed through Step 9.10.

TASK STANDARD:

2DG1 has been tripped and it's output breaker has been opened.

This is an alternate success path JPM.

TASK PERFORMANCE AIDS:

2104.036 Section 9.0, Form 2104.036A, and Synchroscope Switch

SIMULATOR SETUP:

Ensure the SW Outlet Valve handswitch is turned to open.

Run Case File JPM02, this will set trigger #5 to actuate override to load #1 EDG uncontrollably when #1 EDG governor handswitch (CS4) is taken to increase position AND the EDG output breaker (2A308) is closed.

EXAMINER'S NOTES:

JOB PERFORMANCE MEASURE

JOB PERFORMANCE MEASURE

INITIATING CUE:

The SS/CRS directs, "Parallel 2DG1 with offsite power and load 2DG1 to 700 KW using 2104.036 starting with step 9.11."

CRITICAL ELEMENTS (C): 2, 3, 4, 5, 6, 7, 9

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
	1.	Perform post start checks on EDG. <u>POSITIVE CUE:</u> AO reports that post start checks have been completed satisfactory.	Informed AO to perform post start checks using EXHIBIT 4.	N/A SAT UNSAT
(C)	2.	Place 2DG1 synchroscope switch to "ON". <u>POSITIVE CUE:</u> Synchroscope is ON. <u>NEGATIVE CUE:</u> Synchroscope is OFF.	On panel 2C33, inserted synchroscope switch handle into 2DG1 Output breaker synchroscope switch (152-308/SS). Rotated handle clockwise to "ON".	N/A SAT UNSAT
(C)	3.	Adjust generator voltage (incoming) higher than system voltage (running). <u>POSITIVE CUE:</u> Voltages are adjusted. <u>NEGATIVE CUE:</u> Voltages are not adjusted.	On panel 2C33, adjusted generator voltage (incoming) by using Voltage Control Handswitch (CS3) to raise or lower 2DG1 voltage so: Generator voltage (incoming) is ≈ 100 volts higher than system voltage (running) by 2C33 indication. AND Generator voltage (incoming) is higher than system voltage (running) by SPDS indication.	N/A SAT UNSAT
(C)	4.	Adjust 2DG1 frequency. <u>POSITIVE CUE:</u> Synchroscope rotating slowly in FAST direction (clockwise). <u>NEGATIVE CUE:</u> Synchroscope rotating slowly in SLOW direction (counter-clockwise).	On panel 2C33, adjusted frequency to cause synchroscope to rotate slowly in the FAST direction using Governor Control Handswitch (CS4) to raise or lower 2DG1 speed.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
(C)	5.	<p>Close 2DG1 Output Breaker (2A-308).</p> <p><u>POSITIVE CUE:</u> Red light ON for 2A-308.</p> <p><u>NEGATIVE CUE:</u> Green light ON for 2A-308.</p>	<p>On panel 2C33, placed hand on 2DG1 Output Breaker handswitch (152-308).</p> <p>Observed 2DG1 synchroscope rotation.</p> <p>Rotated 152-308 handswitch to "CLOSE" when synchroscope passed through 12 o'clock position.</p> <p>Verified red light for 2DG1 Output Breaker 2A-308 ON.</p>	N/A SAT UNSAT
(C)	6.	<p>Increase 2DG1 load.</p> <p><u>POSITIVE CUE:</u> Load indicates 700 KW and increasing.</p>	<p>On panel 2C33, increased 2DG1 load to 700 KW using Governor Control Handswitch.</p> <p>Observed 2DG1 KW meter during loading operation.</p> <p>Observed 2DG1 Load increasing after Governor Control Handswitch is released.</p>	N/A SAT UNSAT
(C)	7.	<p>Attempt to stop uncontrolled load increase.</p> <p><u>NEGATIVE CUE:</u> Load is increasing.</p>	<p>On panel 2C33, placed Governor Control Handswitch. to LOWER.</p> <p>Observed load still increasing on 2DG1 KW meter.</p>	N/A SAT UNSAT
NOTE				
The examinee may choose to open the EDG output breaker prior to securing the EDG. If he does so, continue with Step 8. Otherwise, proceed to Step 9.				
	8.	<p>Open 2DG1 Output Breaker 2A-308.</p> <p><u>POSITIVE CUE:</u> 2A-308 is open.</p>	<p>On Panel 2C33, placed 2DG1 Output Breaker Handswitch to Trip or Pull-To-Lock.</p> <p>Observed output breaker opens.</p>	N/A SAT UNSAT
(C)	9.	<p>Stop 2DG1 by placing Engine Control Handswitch to Pull-To-Lock.</p> <p><u>POSITIVE CUE:</u> 2DG1 is secured.</p>	<p>On Panel 2C33, placed 2DG1 Engine Control Handswitch to Pull-To-Lock.</p> <p>Observed engine shuts down and output breaker opens.</p>	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST	STANDARDS	(Circle One)
END		

JOB PERFORMANCE MEASURE

EXAMINEE'S COPY

JPM INITIAL TASK CONDITIONS:

2DG1 is running unloaded at 60 Hz and 4160 volts. 2104.036 Section 9.0 has been completed through Step 9.10.

INITIATING CUE:

The SS/CRS directs, "Parallel 2DG1 with offsite power and load 2DG1 to 700 KW using 2104.036 starting with step 9.11."

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: 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 ≈ 547°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. 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> 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> Red light ON; green light OFF.</p> <p><u>NEGATIVE CUE:</u> 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 #: 001 DATE: _____

SYSTEM/DUTY AREA: Abnormal/Emergency Operations

TASK: Initiate Auxiliary Spray

JTA#: ANO2ROPZRNORM7

KA VALUE RO: 3.7 SRO: 3.5 KA REFERENCE: 010 A4.01

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: 10 Minutes

REFERENCE(S): 2202.001 Rev 005-00-0; 2202.010 Rev 006-01-0

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:

Mode 3, Post Reactor Trip, No RCPs running, Standard Post Trip Actions in progress, RCS Pressure 2275 psia and slowly rising.

TASK STANDARD:

Auxiliary Spray has been initiated as indicated by Aux Spray valve open, Charging Pump operating and proper valve alignment.

TASK PERFORMANCE AIDS:

2202.010 Rev 006-01-0, Standard Attachment 29, PZR Spray Operation.

SIMULATOR SETUP:

Mode 3, LOOP with Pzr Pressure at approximately 2275 psia.

EXAMINER'S NOTES:

JOB PERFORMANCE MEASURE

INITIATING CUE:

The SM/CRS directs, "Establish Auxiliary Spray Flow to reduce Pressurizer Pressure using 2202.010 Standard Attachment 29 Step 2.

CRITICAL ELEMENTS (C): 2, 5, 7

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
	1. Verify at least ONE Charging Pump running <u>POSITIVE CUE:</u> Red light is ON. Flow greater than 44 gpm <u>NEGATIVE CUE</u> Green Light is ON. Flow less than 44 gpm.	On Panel 2C09, verified at least one Charging Pump (2P36A, B, C) running by observing red light ON above appropriate handswitch: 2HS-4832-1 2P36A 2HS-4852-1 2P36B 2HS-4853-2 2P36B 2HS-4842-2 2P36C	N/A SAT UNSAT
(C)	2. Isolate Letdown System IF Regen Hx To RCS Temperature (2TI-4825) is greater than 275°F. <u>POSITIVE CUE:</u> 2TI-4825 reads greater than 275°F. <u>NOTE:</u> This is not a critical step if temperature is less than 275°F. <u>POSITIVE CUE:</u> Green light is ON.	On Panel 2C09, observed Regen Hx to RCS Temperature (2TI-4825) to determine if temperature is greater than 275°F. On Panel 2C09, isolated Letdown System by placing handswitch for one of the following valves to CLOSE:: 2CV-4820-2 2CV-4821-1 2CV-4823-2 Observed Green light ON, Red light OFF for appropriate valve.	N/A SAT UNSAT
	3. Complete Table 1. <u>POSITIVE CUE:</u> Temperature is less than 275°F	On Panel 2C09, observed 2TI-4825 to determine IF temperature is reduced below 275°F. Completed Table 1 IF temperature is greater than 275°F.	N/A SAT UNSAT
	4. Complete Table 1 <u>POSITIVE CUE:</u> Temperature difference is less than 200°F.	Completed Table 1 IF Regen HX to RCS temperature (2TI-4825) and Pzr Water Phase temperature (2TI-4627) differential temperature greater than 200°F.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
(C)	5.	<p>CLOSE Regen Hx to RCP B/C valves.</p> <p><u>POSITIVE CUE:</u> Green lights are ON.</p>	<p>On panel 2C09, placed handswitch for 2CV-4827-2 and 2CV-4831-2 in CLOSE.</p> <p>Observed Green light ON; Red light OFF above handswitches for 2CV-4827-2 and 2CV-4831-2.</p>	N/A SAT UNSAT
	6.	<p>Verify Pzr Spray or Pzr Spray Isolation vales are CLOSED.</p> <p><u>POSITIVE CUE:</u> Green light ON, Red light is OFF for Pzr Spray or Pzr Spray Block Valves.</p>	<p>On Panel 2C09, observed Green light ON, Red light OFF for following valves: 2CV-4651 <u>AND</u> 2CV-4652 <u>OR</u> 2CV-4655 <u>AND</u> 2CV-4653. IF required valves NOT closed, placed handswitch for valve(s) to CLOSE until Green light(s) ON, Red light(s) OFF.</p>	N/A SAT UNSAT
(C)	7.	<p>Throttle OPEN Aux Spray Valve (2CV-4824-2)</p>	<p>On Panel 2C09, placed handswitch for Aux Spray Valve (2CV-4824-2) to OPEN as desired.</p> <p>For 2CV-4824-2, observed Red light ON, Green light ON for valve in throttled position.</p>	
END				

JOB PERFORMANCE MEASURE

EXAMINEE'S COPY

JPM INITIAL TASK CONDITIONS:

Mode 3, Post Reactor Trip, No RCPs running, Standard Post Trip Actions in progress, RCS Pressure 2275 psia and slowly rising.

INITIATING CUE:

The SM/CRS directs, "Establish Auxiliary Spray Flow to reduce Pressurizer Pressure using 2202.010 Standard Attachment 29 Step 2.

JOB PERFORMANCE MEASURE

UNIT: 2 REV #: 000 DATE: _____

SYSTEM/DUTY AREA: Abnormal/Emergency Operations

TASK: Restore Component Cooling Water To Reactor Coolant Pumps (Alternate Success Path)

JTA#: ANO2ROCCWOFFNORM10

KA VALUE RO: 3.3 SRO: 3.1 KA REFERENCE: 008 A4.01

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): 2202.010 Rev 006-01-0

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:

2A1, 2A2 are re-energized from SU#2 following a Degraded Power situation. 2202.010 Attachment 29 steps through 1.M have been completed. Power to CCW pumps has been restored. RCP Seal temperatures are > 180°F and < 300°F.

TASK STANDARD:

Controlled bleed off has been isolated to VCT and CBO relief valve has been isolated.

TASK PERFORMANCE AIDS:

2202.010 Rev 006-01-0, Standard Attachment 21, Restoration of CCW to RCPs.

SIMULATOR SETUP:

Set up CCW valves per 2202.010 Standard Attachment 29 "STARTUP TRANSFORMER #2 USAGE".

Perform steps through Step 1.M. Close RCP CCW RETURN Valves, 2CV-5255-1, 2CV-5254-1, and

2CV-5236-1. No SIAS actuation. Run CASE File JPM 11. This will do the following: Set T4 = ccwrpc (this will trigger T4 when 2CV-5255-1 red light is energized). When 2CV-5255-1 is taken to open position.

This will cause a leak on the CCW header in containment to occur at 200 gpm (~110 gpm leak with 92 gpm Makeup to surge tank) ramped over 5 minutes. CCWLEAKCONT malfunction; value =200; Ramp 5:00.

EXAMINER'S NOTES:

JOB PERFORMANCE MEASURE**INITIATING CUE:**

The SM/CRS directs, "Restore CCW to the RCPs using 2202.010 Attachment 21."

CRITICAL ELEMENTS (C): 7, 8, 10,11,12, 13,14

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
1.	Verify RCP Bleedoff to VCT valves open.	On Panel 2C17, verified 2CV-4846-1 Red light ON; control switch in OPEN. On Panel 2C16 verified 2CV-4847-2 Red light ON; control switch in OPEN.	N/A SAT UNSAT
2.	Verify RCP Bleedoff Relief Isolation to Quench Tank open.	On Panel 2C09, verified 2CV-4856 Red light ON; key-switch in LOCKED OPEN.	N/A SAT UNSAT
3.	Determine RCP Seal temperature and status of Loop II CCW pump. <u>POSITIVE CUE:</u> RCP seal temperatures are > 180°F and one CCW pump is running on Loop II.	On Panel 2C14 or on PMS computer, determined RCP seal temperatures. On Panel 2C14, observed running indication for one Loop II CCW pump and Loop II flow.	N/A SAT UNSAT
4.	Verify RCP CCW Return valve (2CV-5255-1) CLOSED. <u>POSITIVE CUE:</u> Green light ON.	On Panel 2C17, verified 2CV-5255-1 CLOSED. Observed Green light ON; Red light OFF above handswitch.	N/A SAT UNSAT
5.	Open RCP CCW Supply valve (2CV-5236-1). <u>POSITIVE CUE:</u> Red light ON.	On Panel 2C17, placed handswitch for 2CV-5236-1 in OPEN. Observed Green light OFF; Red light ON.	N/A SAT UNSAT
6.	Open RCP CCW Return valve (2CV-5254-2). <u>POSITIVE CUE:</u> Red light ON.	On Panel 2C16, placed handswitch for 2CV-5254-2 in OPEN. Observed Green light OFF; Red light ON.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST		STANDARDS		(Circle One)
EXAMINER'S NOTE:				
When 2CV-5255-1 is taken to OPEN, the leak into containment will start. This will result in an unexplained level drop in the surge tank requiring CCW to be isolated. Level indication is located on Panel 2C14.				
(C)	7.	Throttle RCP CCW Return valve (2CV-5255-1) OPEN. <u>POSITIVE CUE:</u> Red light ON. Green light ON.	On Panel 2C17, took handswitch for 2CV-5255-1 to OPEN for one (1) second then released. Observed red and green lights ON.	N/A SAT UNSAT
(C)	8.	Verify Loop 2 CCW Surge Tank Level is dropping. <u>POSITIVE CUE:</u> Surge tank level is dropping.	On Panel 2C14, observed that CCW Surge Tank level is dropping.	N/A SAT UNSAT
EXAMINER'S NOTE:				
The examinee should go to Step 4 of Attachment 21. Examinee may secure CCW pumps, if level drops low enough.				
	9.	Verify ALL RCP's secured. <u>POSITIVE CUE:</u> Green light ON and Red light OFF for 2P32 A, B, C, D.	On Panel 2C04, observed 2P32A, B, C, and D RCP handswitches in STOP or PTL. Observed handswitch is Green flagged; Green light ON and Red light OFF for each RCP.	N/A SAT UNSAT
(C)	10.	Close RCP CCW RETURN (2CV-5255-1.). <u>POSITIVE CUE:</u> Green light ON and Red light OFF for 2CV-5255-1.	On Panel 2C17, placed handswitch for 2CV-5255-1 to CLOSE Observed Green light ON; Red light OFF.	N/A SAT UNSAT
(C)	11.	Close RCP CCW RETURN (2CV-5254-2.). <u>POSITIVE CUE:</u> Green light ON and Red light OFF for 2CV-5254-2.	On Panel 2C16, placed handswitch for 2CV-5254-2 to CLOSE Observed Green light ON; Red light OFF.	N/A SAT UNSAT

JOB PERFORMANCE MEASURE

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
(C)	12.	Close RCP CCW SUPPLY (2CV-5236-1). <u>POSITIVE CUE:</u> Green light ON and Red light OFF for 2CV-5236-1.	On Panel 2C17, placed handswitch for 2CV-5236-1 to CLOSE. Observed Green light ON; Red light OFF.	N/A SAT UNSAT
(C)	13.	Close RCP Bleedoff to VCT valves. <u>POSITIVE CUE:</u> For 2CV-4846-1 Green light ON and for 2CV-4847-2 Green light ON.	On Panel 2C17, placed handswitch for 2CV-4846-1 to CLOSE. On Panel 2C16, placed handswitch for 2CV-4847-2 to CLOSE. For each valve, observed Green light ON; Red light OFF.	N/A SAT UNSAT
(C)	14.	Close RCP Bleedoff Relief Isolation to Quench Tank valve (2CV-4856). <u>POSITIVE CUE:</u> Green light ON.	On Panel 2C09, placed handswitch for 2CV-4856 to CLOSE Observed Green light ON; Red light OFF.	N/A SAT UNSAT
END				

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

2A1, 2A2, are re-energized from SU#2 following a degraded power situation. 2202.010 ATTACHMENT 29 steps through 1.M have been completed. Power to CCW pumps has been restored. Seal temperatures are > 180°F and < 300°F.

INITIATING CUE:

The SM/CRS directs, "Restore CCW to the RCP's using 2202.010 Attachment 21, Restoration of CCW to RCPs."

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.	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
15.	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 normal position.	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."