Final Submittal

(Blue Paper)

1. Administrative Questions/JPMs
2. In-plant JPMs
3. Control Room JPMs (simulator JPMs)

WATTS BAR EXAM 2002-301

50-390
NOVEMBER 26 &
DECEMBER 9 - 13, 2002

Facility:	WATTS BAR	Date of Examination:	11-9-13/02
Examination Level (circle one):	RO / SRO	Operating Test Number	1

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Conduct of Operations	a. Calculate Shutdown Margin (NEW)
		b. Complete Shift Turnover Checklist (NEW)
A.2	Equipment Control	Complete Shift Daily Surveillance Log Mode One and Evaluate Surveillance Log (NEW)
A.3	Radiation Control	Access a High Radiation Area (New)
A.4	**Emergency Procedures/Plan** Emergency Plan implementation	Classify the Event per the REP (Security Event) - SRO (NRC-JPM-NEW)
		Medical Emergency Response (RO)

REGION II
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JOB PERFORMANCE MEASURE

A.1.a RO/SRO JPMRADMIN

CALCULATE SHUTDOWN MARGIN

APPLICANT _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JOB PERFORMANCE MEASURE

Task: Calculate Shutdown Margin

Alternate Path: N/A

Facility JPM #: New

K/A Rating(s): 001A4.11 [3.5/4.1] 2.1.7 [3.7/4.4] 2.1.25 [2.8/3.1]

Task Standard: Performer completes a Conservative SDM Hand Calculation per 1-SI-0-10 Section 6.2. Determines Required RCS Boron Concentration, determines present boron concentration is inadequate for cooldown. Performer notifies SM/Unit Supervisor of the results.

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator __X__ In-Plant _____ Perform __X__ Simulate _____

References: 1-SI-0-10, "Shutdown Margin", Rev. 11; NUPOP, "Nuclear Parameters and Operating Package for Watts Bar Unit 1, Cycle 5", Rev 0; NOB, "Unit 1 Nuclear Operating Book, Sheet A-3" Rev 20.

Task Number: RO-085-SI-0-10-001 APPLICABLE FOR: RO/SRO

10CFR55.45: 1, 5, 12

Validation Time: ____ min. **Time Critical:** No

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Applicant: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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_____

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Tools/Equipment/Procedures Needed:

Latest revision of 1-SI-0-10
NUPOP for WBN Unit 1 Cycle 5
NOB for WBN Unit 1
Ruler or straight edge.
Calculator

NOTE: START THIS JPM AT A LOCATION WHERE PERFORMER HAS ACCESS TO PROCEDURES (Simulator, Main Control Room, TIC or provide performer with procedure).

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the administrative task to be performed. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The Unit has tripped and will require a Unit Cooldown to 160 °F.

Core average burnup is 2500 MWD/MTU.

All control rods have fully inserted into the core.

At least one reactor coolant pump will remain in operation until cooldown is complete.

RCS boron concentration is 1150 ppm.

You are an extra Unit Operator.

INITIATING CUES:

The SM/Unit SRO has directed you to perform a Conservative SDM Hand Calculation per 1-SI-0-10 "Shutdown Margin", Section 6.2 based on the conditions stated above.

- **Determine the Required RCS Boron concentration.**

- **Determine if acceptance criteria are met.**
- **Notify SM/Unit SRO of the Required RCS Boron Concentration.**

START TIME: _____

STEP 1: Obtain a copy of the instruction. STANDARD: *A copy of 1-SI-0-10 has been obtained.* **EXAMINER'S CUE: Provide the applicant a copy of the instruction.** COMMENTS:	___ SAT ___ UNSAT
NOTE If this instruction cannot be performed for any reason (e.g. unknown Boron Concentration) refer to Technical Specifications for appropriate actions and contact Reactor Engineering for assistance.	
STEP 2: **[1]** **ENSURE** precautions and limitations in Section 3.0 have been reviewed. STANDARD: Applicant reviews Section 3.0 Precautions and Limitations. COMMENTS:	___ SAT ___ UNSAT

STEP 3: **[2]** **ENSURE** prerequiste actions in Section 4.0 have been met. **EVALUATOR CUE: State that Section 4.0 action have been met.** STANDARD: Applicant proceeds to the next step COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 4: **[3]** **OBTAIN** the NuPOP for the applicable cycle AND **RECORD**: A. The WCAP number and cycle number: WCAP - _____ Cycle _____ B. The Maximum Stuck Rod Worth. Table D1, (Mode 2 below nuclear heating through Mode 5): _____pcm STANDARD: Applicant records WCAP- 15796 and Cycle 5 . Applicant records 1384 pcm. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

NOTE 1 Mode 1 or 2 calculations should be run assuming the reactor has just tripped and is in Mode 3 with an RCS temperature of 547 °F. **NOTE 2** If reliable RCS temperature or RCS boron sample data is not available, it is permissible to enter values known to be conservative (i.e. a lower temperature or boron concentration) or to initiate immediate boration until reliable data can be obtained. **NOTE 3** Calculations for periodic SI performance should use current conditions. **NOTE 4** Calculations for projecting SDM based on the evolution should use the projected final conditions. Remember that Mode 4 is more limiting than Mode 5.	
STEP 5: **[4]** **DETERMINE** the following plant conditions: A. Core average burnup: _____MWD/MTU. B. Number of immovable/untrippable rods: _____ C. *Minimum Tcold for the desired condition:* _____ °F D. RCS Boron Concentation Cb: _____ ppm E. Differential Boron Worth: _____pcm/ppm (see NuPOP Figure 6-22 STANDARD: Applicant records the following: A. Core average burnup: 2500 MWD/MTU. B. Number of immovable/untrippable rods: 0 C. Minimum Tcold for the desired condition: 160 °F D. RCS Boron Concentation Cb: 1150 ppm E. Differential Boron Worth: -6.4 pcm/ppm (see NuPOP Figure 6-22 COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 6: **[5]** **IF** there are immovable/untrippable rods, **THEN CALCULATE** the stuck rod correction _____ x _____pcm ÷ _____ pcm/ppm (Step [4] B) (Step [3] B) (Step [4] E) Stuck rod correction = _____ ppm. STANDARD: Applicant determines that there are no stuck rods (based on initial conditions). __0__ x __1384__pcm ÷ __-6.4__ pcm/ppm (Step [4] B) (Step [3] B) (Step [4] E) Stuck rod correction = __0__ ppm. COMMENTS:	___ SAT ___ UNSAT
STEP 7: **[6]** **RECORD** the $(M\text{-}P)_{SDM}$ from NOB Sheet A-3. $(M\text{-}P)_{SDM}$ = _____ppm. STANDARD: Applicant obtains the required value by referring to the NOB sheet A-3. records it in the procedure blank. $(M\text{-}P)_{SDM}$ = __100__ ppm. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 8: **[7]** **CALCULATE** required RCS C_B **[a]** **DETERMINE** UNCORRECTED Maximum Required C_B, from NuPOP Table 7-4 using burnup of Step [4] A and *temperature of Step [4] C:* UNCORRECTED Max Required CB = _____ ppm STANDARD: Applicant obtains the required value by referring to the NuPOP Table 7-4 for 2500 MWD/MTU and 160 F records value in the procedure blank. UNCORRECTED Max Required CB = 1648 ppm COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 9: **[7b]** **CALCULATE** required RCS C_B **[b]** **CALCULATE** the Required C_B _____ + _____ + _____ (Step [5]) (Step [6]) (Step [7] [a]) Required C_B = _____ ppm STANDARD: Applicant calculates the sums from Step [5], Step [6] and Step 7a, and enters the valve calculated in the Required Cb blank. 0 + 100 + 1648 (Step [5]) (Step [6]) (Step [7] [a]) Required C_B = 1748 ppm COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 10: **[8]** **VERIFY** That RCS C_B in Step [4] D is greater than or equal to the Required C_B in Step [7][b] (Acc Crit. A & B). STANDARD: Applicant determines that the acceptance critieria are NOT met. Value in step [4] D is less than Value in Step [7][b]. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 11: **[9]** **IF** dilution protection is needed via boron analysis, **THEN PERFORM** Appendix A. **EVALUATOR CUE: State that dilution protection is not required at this time. The RCS boron concentration will be raised before cooldown is commenced.** STANDARD: Applicant proceeds to the next step. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 12: **[10] NOTIFY** SM/Unit SRO of Required RCS CB AND RECORD date and time below. _____/_____ SM/Unit SRO Date & Time **EVALUATOR CUE: Role play as SM/Unit supervisor and acknowledge report..** STANDARD: Applicant informs the SM/Unit Supervisor of the Required RCS CB that was calculated. Should also inform him that acceptance criteria for this SI were not met. COMMENTS: **END OF TASK**	___ SAT ___ UNSAT

TIME STOP: _____

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

APPLICANT CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the administrative task to be performed. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The Unit has tripped and will require a Unit Cooldown to 160 °F.

Core average burnup is 2500 MWD/MTU.

All control rods have fully inserted into the core.

At least one reactor coolant pump will remain in operation until cooldown is complete.

RCS boron concentration is 1150 ppm.

You are an extra Unit Operator.

INITIATING CUES:

The SM/Unit SRO has directed you to perform a Conservative SDM Hand Calculation per 1-SI-0-10 "Shutdown Margin", Section 6.2 based on the conditions stated above.

- **Determine the Required RCS Boron concentration.**
- **Determine if acceptance criteria are met.**
- **Notify SM/Unit SRO of the Required RCS Boron Concentration.**

REGION II
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JOB PERFORMANCE MEASURE

A.1.b JPMRADMIN

COMPLETE SHIFT TURNOVER CHECKLIST

APPLICANT _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JOB PERFORMANCE MEASURE

Task: Complete Shift Turnover Checklist

Alternate Path: N/A

Facility JPM #: New

K/A Rating(s): 2.1.3 [3.0/3.4]

Task Standard: Properly completes relief of the Operator At the Controls per Guidance provided by OPDP-1 Shift Relief Turnover form. The performer should determine that the turnover sheet that was provided does not note some important items that were *noted in operators narrative log, or by annunciator alarms, or control board switch* configuration in the main horseshoe portion of the simulator control room.

References: OPDP-1 "Conduct Of Operations" Rev. 1.

Task Number:: AUO-119-OPDP-1-003 APPLICABLE FOR: AUO/RO/SRO

10CFR55.45: 3, 5, 7, 12, 13

Validation Time: ____ min. **Time Critical:** No

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Applicant: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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SIMULATOR OPERATOR INSTRUCTIONS:

1. Initialize to IC # **182**.

2. Acknowledge all alarms.

3. Freeze simulator until the performance indicates understanding of the task and time is allowed for control board familiarization.

4. NOTE: This JPM has been preshot in IC #**181**. The following is the setup instructions if needed:

   Initialize to IC #50
   Insert the following over ride **mrf rpr-3** in to rack in Rx Trip Bypass Bkr BY-A
   Place Control Rods in **MANUAL.**
   Place 1A MDAFW pump in P-T-L
   Insert the following over rides for T O of 1A-A MDAFW pump
   ior zlohs3118a[1] off
   ior zlohs3355 close
   ior zlohs3355[1] off
   ior zlohs3355[2] off
   Place pressurizer master controller in **MANUAL**. 1-PIC-68-340D.

   Acknowledge all alarms .
   FREEZE the simulator till the performer indicates an understanding of the task.

5. After performer indicates understanding of task, place simulator in run.

SIMULATOR OPERATOR INSTRUCTIONS:

NONE

Tools/Equipment/Procedures Needed:

Completed Shift Turnover sheet for the on-coming UO.
Reactivity Management Brief.
Operating Logs for three days.
Standing Order/Night order book.

NOTE TO EVALUATOR: Hand out the Applicant Data Sheet along with the Applicant's Cue Sheet.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the administrative task to be performed. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The Unit is at 100% rated thermal power.

You have been off shift for the past 24 hours.

You have been requested to relieve the Unit Operator for the remainder of the shift.

The off-going Unit Operator has completed a Shift Turnover Checklist.

You are an available, currently active Unit Operator.

INITIATING CUES:

- **The Unit Supervisor has directed you to review the shift turnover checklist, complete appropriate reviews and board walkdown.**
- **Inform the Unit Supervisor when you have assumed the shift as Unit Operator.**

START TIME: _____

STEP 1: Obtains copy of shift turnover checklist. STANDARD: Performer obtains copy of Shift Turnover Checklist.. **EXAMINER'S CUE: Provide the applicant with marked up surveillance.** COMMENTS:	___ SAT ___ UNSAT
NOTE TO EVALUATOR The following steps may be performed in any sequence **Part - 1 Completed by off-going shift/ Reviewed by on-coming shift:**	
STEP 2: Performer reviews the Shift Turnover Checklist reviewing what is noted for the four major items that was completed by the off-going Unit Operator: • Abnormal equipment lineup/conditions: • SI/Test in progress/planned: (including need for new brief) • Major Activities/Procedures in progress/planned. • Radiological changes in plant during shift. STANDARD: Performer completes the above review. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

Part 2 - Performed by on-coming shift:	
STEP 3: Performer completes the following: ☐ A review of the Operating Log since last held shift or 3 days, whichever is less (N/A for AUOs) ☐ A review of the Rounds Sheets/Abnormal readings (AUOs only) STANDARD: Performer completes review of the Operating Log that were provided. May note some items to check on during board walkdown. **EXAMINER'S CUE: Provide the applicant with Operating Logs to review. State to the operator that the Simulator SOMs logs have not been setup for this task.** COMMENTS:	___ SAT ___ UNSAT
STEP 4: Review the following programs for changes since last shift turnover: ☐ *Standing Orders* ☐ Immediate required reading ☐ LCO(s) in actions (N/A for AUOs) ☐ TACF (N/A for AUOs) STANDARD: Performer reviews Standing Order/Night Order book. **EXAMINER'S CUE: State to the operator that there are no new TACF, and there is no immediate required reading assigned.** COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

Part 3 - Performed by both off-going and on-coming shift:	
STEP 5: Performs a walkdown of the MCR control boards (N/A for AUOs). Relief time: _____ Relief Date: _____	**CRITICAL STEP**
STANDARD: Performer conducts a control board walkdown of the Main Control Room Horse Shoe boards. The performer should note or determine the following deficiencies: **(Must get three out of five)** 1. The daily log states that 1-SI-99-10-A "31-Day Functional Test of SSPS Train A and Reactor Trip Breaker A. This was not noted on the turnover sheet. May also note that Annunciator for Rx Trip BY-A breaker is LIT. 2. Control Rods are in manual, was not identified on turnover nor mentioned in operating log. Reactivity Management brief sheet indicates control rods are in AUTO. 3. Operating logs indicate that maximum letdown has been placed in service. Turnover states this also, yet only a 75 gpm orifice is in service. 4. Pressurizer Master Controller is in MANUAL. 5. 1A-A AFW pump is listed as having Holder Order, but there aren't any control board tags to indicate this.	___ SAT ___ UNSAT
EXAMINER'S CUE: For the purpose of this evaluation, limit your walkdown to the Main Control Room Horse Shoe.	
COMMENTS:	

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 7: Inform Unit Supervisor that you have completed a shift turnover checklist, and that you a discovered deficiencies that were left by the off-going UO.	___ SAT
STANDARD: Performer Informs Unit Supervisor that he has completed a Shift Turnover Checklist and is ready to assume the watch. The performer should also advise the Unit Supervisor on the deficiencies that were found, if they had not already been reported earlier..	___ UNSAT
***CUE:* **Acknowledge report as Unit Supervisor using repeat back. State that We Will Stop Here.**	
COMMENTS:	
END OF TASK	

TIME STOP: _____

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

APPLICANT CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the administrative task to be performed. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The Unit is at 100% rated thermal power.

You have been off shift for the past 24 hours.

You have been requested to relieve the Unit Operator for the remainder of the shift.

The off-going Unit Operator has completed a Shift Turnover Checklist.

You are an available, currently active Unit Operator.

INITIATING CUES:

- **The Unit Supervisor has directed you to review the shift turnover checklist, complete appropriate reviews and board walkdown.**
- **Inform the Unit Supervisor when you have assumed the shift as Unit Operator.**

SHIFT TURNOVER CHECKLIST

Page _____ of ____

- ☐ SM
- ☐ US/MCR Unit _____
- ☒ UO Unit _____
- ☐ AUO Station _____
- ☐ STA (STA Function)

Off-going - Name _____

On-coming - Name _____

Part 1 - Completed by off-going shift/Reviewed by on-coming shift: C_b = 947 ppm

- Abnormal equipment lineup/conditions:
  1A-A MDAFWP OOS with Hold Order for maintenance to replace outboard motor bearing. ETR 25 hours. LCO 3.7.5 condition B - For 20 hours. Medium Risk.
  Maximum letdown being maintained for crud burst cleanup.

- SI/Test in progress/planned: (including need for new brief)
  1-SI-0-2

- Major Activities/Procedures in progress/planned:
  Maintain 100% load.

- Radiological changes in plant during shift:
  Crud Burst occurred last shift. Chem recommends that maximum RCS letdown be maintained to facilitate cleanup.

Part 2 - Performed by on-coming shift

- ☐ A review of the Operating Log since last held shift or 3 days, whichever is less (N/A for AUOs)
- ☐ A review of the Rounds sheets/Abnormal readings (AUOs only)

Review the following programs for changes since last shift turnover:

- ☐ Standing Orders
- ☐ LCO(s) in actions (N/A for AUOs)
- ☐ Immediate required reading
- ☐ TACF (N/A for AUOs

Part 3 - Performed by both off-going and on-coming shift

- ☐ A walkdown of the MCR control boards (N/A for AUOs)

Relief Time: _____ Relief Date: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

REGION II
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JOB PERFORMANCE MEASURE

A.2 JPMRADMIN

COMPLETE SHIFT DAILY SURVEILLANCE LOG MODE ONE and EVALUATE SURVEILLANCE LOG

APPLICANT _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JOB PERFORMANCE MEASURE

Task: Complete Shift Daily Surveillance Log Mode One and Evaluate Surveillance Log.

Alternate Path: N/A

Facility JPM #: New

K/A Rating(s): 2.2.12 [3.0/3.4]

Task Standard: Correctly record data on data sheet 1 reference 11, 12, 13, and 23 and review this data to determine whether or not the surveillance meets acceptance critieria.

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator __X__ In-Plant _____ Perform __X__ Simulate _____

References: 1-SI-0-2B-01 "0700-1900 Shift And Daily Surveillance Log Mode One" Rev. 25.

Task Number:: RO-113-GEN-004 APLICABLE FOR: RO/SRO

10CFR55.45:

Validation Time: _____ min. **Time Critical:** No

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Applicant: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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SIMULATOR OPERATOR INSTRUCTIONS:

1. Initialize to IC # **181**.

2. Acknowledge all alarms.

3. Freeze simulator until the performance indicates understanding of the task and time is allowed for control board familiarization.

4. NOTE: *This JPM has been preshot in IC #**181**. The following is the setup* instructions if needed:

   Initialize to IC #50
   Acknowledge all alarms .
   FREEZE the simulator till the performer indicates an understanding of the task.

5. After performer indicates understanding of task, place simulator in run.

SIMULATOR OPERATOR INSTRUCTIONS:

NONE

Tools/Equipment/Procedures Needed:

Marked up copy of 1-SI-0-2B-01 "0700-1900 Shift and Daily Surveillance Log Mode One with pages reference 11, 12, 13, and 23.
Calculator

NOTE TO EVALUATOR: Hand out the Applicant Data Sheet along with the Applicant's Cue Sheet.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the administrative task to be performed. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The unit is operating at 100% rated thermal power

You are the Unit Operator responsible to perform and review the Shift Daily Surveillance Log Mode 1.

Portions of the Surveillance Log have been completed for you.

INITIATING CUES:

- **You are to complete reference 11, 12, 13, and 23 and verify that the logs you have completed have met all acceptance criteria.**
- **Report the results to the Unit Supervisor.**

START TIME: _____

STEP 1: Obtain a copy of the instruction.

STANDARD: A copy of 1-SI-0-2B-01 has been obtained.

EXAMINER'S CUE: Provide the applicant with marked up surveillance.

COMMENTS:

___ SAT

___ UNSAT

STEP 2: **[Ref 11]** Log data for RCS Loop ΔT into data table, check Operable, Channel Check, and MCD ≤ 7%.

CRITICAL STEP

STANDARD: Applicant obtains current readings for RCS Loop ΔTs and records them on the data sheet, determines that the channels are operable, channel checked and MCD is within ≤ 7%.:

___ SAT

___ UNSAT

Loop 1	1-TI-68-2D	Operable, Channel Check, and MCD ≤ 7%	100 % full power
Loop 2	1-TI-68-25D		99 % full power
Loop 3	1-TI-68-44D		100 % full power
Loop 4	1-TI-68-67D		100 % full power
Loop 1	1-TI-68-2A	Operable, Channel Check, and MCD ≤ 7%	109 % full power
Loop 2	1-TI-68-25A		110 % full power
Loop 3	1-TI-68-44A		111 % full power
Loop 4	1-TI-68-67A		110 % full power
Loop 1	1-TI-68-2B	Operable, Channel Check, and MCD ≤ 7%	114 % full power
Loop 2	1-TI-68-25B		113 % full power
Loop 3	1-TI-68-44B		114 % full power
Loop 4	1-TI-68-67B		116 % full power

COMMENTS:

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 3: **[Ref 12]** Log data for RCS Tavg into data table, check Operable, ≤593 °F and ≥ 555 °F, Channel Check, and MCD ≤ 5 °F.

STANDARD: Applicant obtains current readings for RCS Tavg and records them on the data sheet, determines that Tavg is ≤593 °F and ≥ 555 °F, determines that the channels are operable, channel checked and MCD is within ≤ 5 °F.

CRITICAL STEP

___ SAT

___ UNSAT

Loop 1	1-TI-68-2E	Operable, ≤593 °F and ≥ 555 °F, Channel Check, and MCD ≤ 5 °F.	588.5 °F
Loop 2	1-TI-68-25E		588.0 °F
Loop 3	1-TI-68-44E		589.0 °F
Loop 4	1-TI-68-67E		589.0 °F

COMMENTS:

STEP 4: **[Ref 13]** Log data for RCS Loop flows into data table, Total RCS Flow Rate ≥ 380,000 gpm for indicators (Average ≥ 98%), Channel Check, and MCD ≤ 4%.

STANDARD: Applicant obtains current readings for RCS Loopflows and records them on the data sheet, determines that flow rate is within T S Limit, channel checked and MCD is within ≤ 4%.:

CRITICAL STEP

___ SAT

___ UNSAT

Loop 1 Flow	1-FI-68-6A	Total RCS Flow Rate ≥ 380,000 gpm for indicators (Average ≥ 98%), Channel Check, and MCD ≤ 4%	100 %
	1-FI-68-6B		100 %
	1-FI-68-6D		100 %
Loop 2 Flow	1-FI-68-29A		100 %
	1-FI-68-29B		100 %
	1-FI-68-29D		100 %
Loop 3 Flow	1-FI-68-48A		100 %
	1-FI-68-48B		100 %
	1-FI-68-48D		100 %
Loop 4 Flow	1-FI-68-71A		100 %
	1-FI-68-71B		100 %
	1-FI-68-71D		100 %
Total all operable indicators and divide by the number of operable indicators for average. Compare average to 98%. Mark YES if ≥ 98%. Mark NO if < 98 %			1200 %tot ÷ 12 ind = 100 %Avg YES ■ NO

COMMENTS:

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 5: **[Ref 23]** Ice Cndnsr Door Status Position Monitoring System, check Operable, all doors closed, & Channel Check.

STANDARD: Applicant checks Ice Cndnsr Door Status Position Monitoring System, checks operable, all door closed, and completes channel checks.

___ SAT

___ UNSAT

1-M-10	1-XI-61-187	Operable, all doors closed, & Channel Check,	(✓) ✓

COMMENTS:

STEP 6: Inform the Unit Supervisor that Reference 11, 12, 13, and 23 of 1-SI-0-2B-01 has been completed, and gives package to the Unit Supervisor.

STANDARD: Applicant inform the Unit Supervisor of the completion of Reference 11, 12, 13, and 23 of 1-SI-0-2B-01. Report any Acceptance Criteria not met.

EXAMINER'S CUE: Acknowledge report as Unit Supervisor, then state We will stop here.

___ SAT

___ UNSAT

COMMENTS:

END OF TASK

TIME STOP: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

APPLICANT CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the administrative task to be performed. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The unit is operating at 100% rated thermal power

You are the Unit Operator responsible to perform and review the Shift Daily Surveillance Log Mode 1.

Portions of the Surveillance Log have been completed for you.

INITIATING CUES:

- **You are to complete reference 11, 12, 13, and 23 and verify that the logs you have completed have met all acceptance criteria.**
- **Report the results to the Unit Supervisor.**

REGION II
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JOB PERFORMANCE MEASURE

A.3 JPMRADMIN

ACCESS A LOCKED HIGH RADIATION AREA

APPLICANT _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JOB PERFORMANCE MEASURE

Task: **Access A Locked High Radiation Area.**

Alternate Path: N/A

Facility JPM #: New

K/A Rating(s): 2.3.10 [2.9/3.3]

Task Standard: Performer demonstrates (identifies) the actions necessary to enter a locked high radiation area.

Preferred Evaluation Location:

Simulator ____ In-Plant __X__

Preferred Evaluation Method:

Perform __X__ Simulate _____

References: RCI-100, "Control Of Radiological Work", Rev 18; SPP-5.1, "Radiological Controls", Rev 4.

Task Number:: AUO-119-SSP-5.01-001
AUO-199-SSP-5.51-001

APLICABLE FOR: AUO/RO/SRO

10CFR55.45: 10

Validation Time: ____ min. **Time Critical:** No

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Applicant: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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Tools/Equipment/Procedures Needed:

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the administrative task to be performed. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Unit is stable at 100% power.

You will be entering a Locked High Radiation Area. (Spent Resin Storage Tank Room) This entry is an non-emergency entry.

INITIATING CUES:

You are directed to demonstrate what you have to do to obtain access and entry into this locked high radiation area.

START TIME: _____

NOTE TO EVALUATOR: The following steps may be performed out of order.	
STEP 1: Determine requirements to enter a Locked High Radiation Area, and the expected radiological conditions. STANDARD: Performer states that he would contact RADCON, and determine whether or not an RWP exists for the job. **EVALUATOR CUE: Role play as RADCON and state that an RWP does exist and is posted.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 2: Reviews the RWP for specific requirements for entry into a Locked High Radiation Area. STANDARD: Performer locates an RWP for entry into Locked High Radiation Area. Reviews the RWP to determine specific requirements. RWP 701 (02000701) is located outside RADCON desk elevation 713. **EVALUATOR NOTE: RWP specific items to note are the Dose Alarm Setpoint (30 mr); the Dose Rate Alarm Setpoint (50 mr); Do not exceed 15 mr above electronic dosimeter dose alarm setpoint per entry or your remaining allowable dose; That RADCON briefing is required and continuous coverage by RADCON will be specified during RADCON briefing. RADCON FORM 208 required.** COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 3: Performer must obtain a briefing from RADCON and be entered into the HIS for logging onto the RWP. STANDARD: Briefing states that a briefing would be conducted by RADCON to determine specific radiological conditions, dosimetry, metering requirements and be logged into system. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 4: Obtain the key for the locked high radiation area. STANDARD: Performer states how and where to obtain a key for the Locked High Radiation Area from the On-duty RADOPS Shift Supervisor. **NOTE TO EVALUATOR: A locked high rad area key box is located at the RADCON station at Aux Building RCA entry station.** *****CUE:* After performer has demonstrated how to obtain a key to the Locked High Radiation Area, then state that We Will Stop Here.** COMMENTS: **END OF TASK**	**CRITICAL STEP** ___ SAT ___ UNSAT

TIME STOP: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

APPLICANT CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the administrative task to be performed. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Unit is stable at 100% power.

You will be entering a Locked High Radiation Area. (Spent Resin Storage Tank Room) This entry is an non-emergency entry.

INITIATING CUES:

You are directed to demonstrate what you have to do to obtain access and entry into this locked high radiation area.

REGION II
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JOB PERFORMANCE MEASURE

A.4.RO JPMRADMIN

RESPOND TO A MEDICAL EMERGENCY IN ACCORDANCE WITH EPIP-10

APPLICANT _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JOB PERFORMANCE MEASURE

Task: **Respond To A Medical Emergency**

Alternate Path: N/A

Facility JPM #: 3-OT-JPMADA.4-1

K/A Rating(s): 2.4.39 [3.3/3.1]

Task Standard: Performer performs actions of Appendix A of EPIP-10, "Medical Emergency Response".

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator __X__ In-Plant _____ Perform __X__ Simulate _____

References: EPIP-10, "Medical Emergency Response", Rev. 15.

Task Number: RO-100-SOI-100-011 APPLICABLE FOR: RO/SRO

10CFR55.45: 11

Validation Time: ___ min. **Time Critical:** No

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Applicant: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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SIMULATOR OPERATOR INSTRUCTIONS:

This JPM may be performed either on the simulator or in another location. If performed on the simulator refer to the following.

1. Initialize to any IC.
2. Acknowledge all alarms.
3. Freeze simulator for duration of task performance.
4. NOTE: This JPM may be performed using a console booth instructor who acts as personnel outside the main control room. Cues may be made by him as indicated by the JPM.

SIMULATOR OPERATOR INSTRUCTIONS:

When directed by the evaluator, place phone call to the "Horseshoe" to initiate the medical emergency:

Call the "Horseshoe" and state the following:

"I want to report a medical emergency."

Tools/Equipment/Procedures Needed:

Latest revision of EPIP-10

NOTE: START THIS JPM AT A LOCATION WHERE PERFORMER HAS ACCESS TO PROCEDURES (Simulator, Main Control Room, TIC or provide performer with procedure).

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the administrative task to be performed. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

You are the Control Room Operator (CRO) on shift.

You have received a telephone call reporting an onsite medical emergency.

INITIATING CUES:

- **Respond to the medical emergency in accordance with EPIP-10.**

START TIME: _____

STEP 1: Obtain a copy of the instruction. STANDARD: A copy of EPIP-10 has been obtained. **EXAMINER'S CUE: After the performer locates and obtains correct instruction, the evaluator can provide a copy of the instruction.** COMMENTS:	___ SAT ___ UNSAT
NOTE TO EVALUATOR: The following steps are from EPIP-10, Appendix A. Control room personnel will USE the following checklist in their RESPONSE to an onsite medical emergency.	
STEP 2: [Step A] Obtain NAME of caller. STANDARD: CRO requests name of caller and records on Appendix A. ***CUE:* State to the performer that your name is John Doe.** COMMENTS:	___ SAT ___ UNSAT

STEP 3: [Step B] LOCATION (Bldg., Elev., Column). STANDARD: Performer requests the location of the caller and records on Appendix A. ***CUE:*** **State to the performer that you are just south of the station air compressors on elevation 708' in the Turbine Building.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 4: [Step C] Type of Medical Emergency. STANDARD: Performer requests the type of Medical Emergency and records on Appendix A. ***CUE:*** **State to the performer that you found a male victim lying *on the floor unconscious but has heartbeat and is* breathing.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 5: [Step D] Number of personnel Involved. STANDARD: Performer requests how many people involved and records on Appendix A. ***CUE:*** **State to the performer: "no other individuals are involved".** COMMENTS:	___ SAT ___ UNSAT

STEP 6: [Step E] Immediate Area Hazards (Radiological, Safety). STANDARD: Requests if immediate hazards exist and records on Appendix A. ***CUE:* State to the performer: "no hazards exist in the area".** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 7: [Step F] Telephone number of the caller. STANDARD: Request the telephone number of the caller and records on Appendix A. ***CUE:* State to the performer that the phone number of the phone you are calling from is 5555.** COMMENTS:	___ SAT ___ UNSAT
STEP 8: [Step G] ALERT and DISPATCH MERT PERSONNEL STANDARD: Performer alerts and dispatches MERT personnel. ***CUE:* As MERT personnel, acknowledge performer's communication.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 9: [Step H] Make the following plant announcement with public address: **"ATTENTION ALL SITE PERSONNEL."** **"ATTENTION ALL SITE PERSONNEL."** **"A MEDICAL emergency has been reported. The MERT is to ACTIVATE and RESPOND to the following LOCATION: _____"** STANDARD: Performer makes public address announcement and has MERT respond to Turbine Building elevation 708', just south of the station air compressors. **EXAMINER'S CUE: If NOT being performed on the simulator, do NOT allow performer to actually perform this announcement. Ensure it is simulated.** COMMENTS:	___ SAT ___ UNSAT
STEP 10: [Step I] CONFIRM that the Shift Manager (SM) has been notified. STANDARD: Performer ensures the SM has been notified. (may make phone call or announce to the control crew that a medical emergency is in progress.) ****CUE: Acknowledge report as Shift Manager.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 11: [Step J] CONFIRM that the Fire Protection Section Duty Shift Supervisor (Fire Brigade Leader) was notified by: Radio or Telephone (extension #3311 or #3355) or Pocket Pager #40566 STANDARD: Performer ensures the Fire Protection Section Duty Shift Supervisor was notified by either radio, telephone, or pocket pager. **EXAMINER'S CUE: Do NOT allow performer to actually perform this notification. Ensure it is simulated.** **CUE: Acknowledge report as Fire Protection Section Duty Shift Supervisor.** COMMENTS:	___ SAT ___ UNSAT
STEP 12: [Step K] CONFIRM/COORDINATE MERT response (via radio or phone) until Incident Commander assumes control. STANDARD: Performer confirms/coordinate the MERT response until the Incident Commander assumes control. **CUE: As Incident Commander, notify the performer that you have assumed control of the emergency. We will stop here.** COMMENTS: **END OF TASK**	**CRITICAL STEP** ___ SAT ___ UNSAT

TIME STOP: _____

APPLICANT CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the administrative task to be performed. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

You are the Control Room Operator (CRO) on shift.

You have received a telephone call reporting an onsite medical emergency.

INITIATING CUES:

- **Respond to the medical emergency in accordance with EPIP-10.**

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Admin A.4 SRO

CLASSIFY THE EVENT PER THE REP (SECURITY EVENT)

APPLICANT _____

EXAMINER _____

EVALUATION SHEET

Task: Classify The Event Per The REP (Loss Of Main Control Room Annunciation)

Alternate Path: N/A

Facility JPM #: 3-OT-JPMS082A

K/A Rating(s): 2.4.38 [2.2/4.0]

Task Standard:
1. The event is classified as an Notification Of Unusual Event based on EAL 4.6 - "SECURITY"
2. Notifications are made per EPIP-2.

Preferred Evaluation Location:

Simulator __X__ In-Plant _____

Preferred Evaluation Method:

Perform __X__ Simulate _____

This JPM will be simulated.

References: EPIP-1 "Emergency Plan Classification Flowpath", Rev. 20; EPIP-2 Notification Of Unusual Event", Rev. 21

Task Number: SRO-113-EPIP-001 APPLICABLE FOR: SRO

10CFR55.45: 11, 12

Validation Time: ____ min. **Time Critical:** Yes

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Applicant: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT _____ UNSAT _____ Performance Time ____

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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EVALUATOR INFORMATION SHEET

TASK TITLE: CLASSIFY THE EVENT PER THE REP (SECURITY EVENT)

DO NOT NEED 3RD. PARTY TO ANSWER THE TELEPHONE AND PROVIDE PHONE CUES.

SIMULATOR SETUP INSTRUCTIONS:

NONE: THIS JPM IS SIMULATED and the simulator will not be used to reflect the conditions.

REQUIRED MATERIALS:

EPIP-1 and EPIP-2

SAFETY CONSIDERATIONS:

None

Tools/Equipment/Procedures Needed:

Ensure clean copy of EPIP-2 in all copies of Emergency Instructions on the Simulator Floor and in the file drawer of Unit Supervisor's desk.

SIMULATOR OPERATOR INSTRUCTIONS:

1. Obtain copy of EPIP-2 to facilitate role plays for contacts made by the performer.
2. Performer must use NRC ring down phone.

Ensure clean copy of EPIP-2 in all copies of Emergency Instructions on the Simulator Floor and in the file drawer of Unit Supervisor's desk.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

THE CURRENT SIMULATOR CONDITIONS ARE NOT REPRESENTATIVE OF THIS JPM.

INITIAL CONDITIONS:

- The unit is at 100% RTP with all systems operable.
- There has been a severe weather watch issued for Rhea and McMinn counties.
- There have been wind gusts up to 40 MPH on site.
- You are the SM/SRO.

INITIATING CUES:

Approximately 3 minutes ago the Nuclear Shift Supervisor notified you that several of the on-shift AUO's wives are being held in a hostage situation that has been confirmed. The AUO's report that unless they comply with the hostage takers requests and shutdown the plant operations, their families will be injured.

Using this information provided to you by the crew and Nuclear Shift Supervisor, make the initial classification of this event and make required notifications according to the REP.

Portions of this JPM are time critical.

START TIME: _____

STEP 1: Refers to EPIP-1 to determine level of event. STANDARD: Performer refers to EPIP-1 and declares an Notification Of Unusual Event based on EAL 4.6 "SECURITY" This must be completed within **15 minutes** of task assignment. **This step is critical to ensure proper activation of TVA resources for event in progress.** COMMENTS: **RECORD time that declaration was made:_____**	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 2: Implements EPIP-2, NOTIFICATION OF UNUSUAL EVENT. STANDARD: EPIP-2, Notification Of unusual Event, is implemented. COMMENTS:	___ SAT ___ UNSAT
NOTE Steps not required to be performed may be N/A'd.	
STEP 3: **[STEP 1] INITIATE** Appendix A, Notification Information. STANDARD: Appendix A is accurately completed. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

CAUTION **If there is any possibility of a radiological release or security adversary attack, do not send personnel into areas of unknown radiological conditions or security risk without first contacting Radiological Control (RADCON) or Security.**	
STEP 4: **[STEP 2] IF,** in the judgement of SM\SED, the Unusual Event requires the activation of the TSC and OSC, **THEN DIRECT** Shift Personnel to activate the Emergency Paging System (EPS) to staff the TSC and OSC. Shift Personnel should confirm activation and provide the 20 minute printed report to the SM for review. A IF the EPS system fails, call the ODS, ringdown or (5-751-1700) and have him activate the EPS. B IF the above methods of activating the EPS fail, Shift Personnel must use the Radiological Emergency Response Call Lists to staff the TSC and OSC. This list is located in the EPS Manual near the terminal. STANDARD: SM/SED determines whether or not to staff the TSC and OSC. If TSC/OSC is to be staffed then Shift personnel are notified to activate the emergency paging system (EPS) to staff the TSC and Operations Support Center (OSC) or EPS is activated in the control room OR decision is made not to staff TSC. **This step is critical only if decision made to staff TSC and OSC.** *****CUE:*** **After the shift personnel are notified, acknowledge the request to activate the Emergency Paging System.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

NOTE: ODS should be notified within **5 minutes** after declaration of the event.	
STEP 5: **[STEP 3] NOTIFY** the ODS direct by ODS Ringdown or No. 5-751-1700 or 5-751-2495 **and PROVIDE** the information from Appendix A. **IF** the ODS cannot be contacted within 10 minutes, the Tennessee Emergency Management Agency is to notified of the Radiological Emergency Plan activation by calling: 9-1-800-262-3300 or 9-1-615-741-0001 or 9-1-800-262-3400. STANDARD: The ODS is notified and provided the information on Appendix A. This notification must be made within **5 minutes** of event declaration. **Step is critical to ensure timely staffing of CECC and notification of the appropriate state agencies.** **EVALUATOR NOTE: DO NOT allow actual call to ODS. Ensure call is to simulator instructor** *****CUE:*** **Role play as the ODS and repeat back the report.** COMMENTS: **RECORD time that ODS was notified:_____**	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 6:	**[STEP 4] ANNOUNCE** to the crew: "A Notification of Unusual Event is being declared based on EAL 4.6, SECURITY. I will be the Site Emergency Director."	**CRITICAL STEP**
STANDARD:	The above announcement is made to the crew. Wording describing the event may vary.	___ SAT
	Step is critical to alert crew to the declaration of the Notification of unusual Event and provide for tracking personnel.	___ UNSAT
***CUE:**	**After the crew is notified, acknowledge the report.**	
COMMENTS:		
STEP 7:	**[STEP 5] FAX** Appendix A to the ODS. (# pre-programmed or 5-751-8620), or TEMA at 9-1-615-242-9635.	___ SAT
STANDARD:	Appendix A is placed in the fax machine and transmission simulated.	___ UNSAT
***CUE:**	**Do NOT allow fax to be transmitted.**	
COMMENTS:		

STEP 8: **[STEP 6] ANNOUNCE** to the plant: "ATTENTION ALL SITE PERSONNEL. ATTENTION ALL SITE PERSONNEL. A Notification of unusual Event is being declared based on Security Event Conditions." (Repeat) STANDARD: A public address announcement for Plant Personnel is made over the plant paging system. Wording describing the event may vary. COMMENTS:	___ SAT ___ UNSAT
CAUTION You should not initiate Assembly and Accountability at this time IF it will present a danger to employees - For example: A severe weather condition exists or is imminent (such as a Tornado). An onsite Security risk condition exists (Consult with Nuclear Security).	
STEP 9: **[STEP 7] IF** NOUE has been declared due to a Security EAL and Nuclear Security recommends Accountability to establish the 'Two Person (Line of Sight) Rule.' **Then** implement EPIP-8 for Assembly and Accountability. STANDARD: Performer determines that Assembly and Accountability nor line of sight rule is not needed at this time. ***CUE:* Role play as the Nuclear Shift Supervisor and state that it not necessary to establish the "Two Person Line of Sight Rule" at this time.** COMMENTS:	___ SAT ___ UNSAT

STEP 10:	**[STEP 8] NOTIFY** Duty Plant Management in accordance with SPP-3.5, **and PROVIDE** NOUE Notification information.	**CRITICAL STEP**
STANDARD:	Duty Plant Manager is provided the Appendix A information. **This step is critical as it alerts plant management to REP activation.**	___ SAT ___ UNSAT
	*****CUE:*** **Role play as the Duty Plant Manager and acknowledge the report.**	
COMMENTS:		
STEP 11:	**[STEP 9] RECEIVE** confirmation call from the ODS (to verify notification of the State of Tennessee) (NA this step, if the state was contacted directly).	
STANDARD:	The performer determines whether or not ODS has notified the State of Tennessee of REP Activation.	___ SAT
	*****CUE:*** **Role play as the ODS and report that the State of Tennessee has been Notified of REP Activation at Watt Bar Nuclear Plant.**	___ UNSAT
COMMENTS:		

NOTE **NRC notification should be made as soon as practicable but within one hour of "NOTIFICATION OF UNUSUAL EVENT" declaration. Whenever NRC requests, a qualified person must provide a continuous update to NRC Operations Center.** **EVALUATOR NOTE: DO NOT allow actual call to NRC. Ensure call is to simulator instructor.**	
STEP 12: **[STEP 10] NOTIFY** the NRC, using designated NRC phone (ENS), of plan activation. The following commercial numbers are for the NRC Operations Center. 9-1-301-816-5100 (MAIN) 9-1-301-951-0550 (BACKUP) 9-1-301-816-5151 (FAX) STANDARD: The NRC is notified of plan activation using designated line. **This step is critical as it alerts NRC to REP activation.** **EVALUATOR NOTE: DO NOT allow actual call to NRC. Ensure call is to simulator instructor.** *****CUE:*** **Role play the NRC and acknowledge the report.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 13: **[STEP 11] EVALUATE** the need to implement EPIP-16, "Initial Dose Assessment for Radiological Emergencies," for a dose projection if radioactivity is being released through normal plant release paths. STANDARD: The performer determines whether or not EPIP-16 is to be implemented. Either decision is acceptable. *****CUE:*** **If RADCON is notified to implement EPIP-16, acknowledge the report.** COMMENTS:	___ SAT ___ UNSAT

STEP 14: **[STEP 12] IF** there are personnel injuries, **IMPLEMENT** WBN EPIP-10, "Medical Emergency Response." STANDARD: Performer determines that it is NOT necessary to implement EPIP-10. *****CUE:*** **Inform the performer that there are NO personnel injuries.** COMMENTS:	___ SAT ___ UNSAT
STEP 15: **[STEP 13]** NOTIFY WBN Emergency Preparedness. Notification to Emergency Preparedness should be made as soon as practicable, but only when notification does not interfere with emergency actions or notifications in progress. Work - 3232 or Work - 8004 or 1838 Home - 9-1-423-337-2911 Home -9-1-865-376-4691 Pager - 30374 Pager - 70215 **NOTE TO EVALUATOR: DO NOT allow actual call. Ensure call is to simulator instructor** *****CUE:*** **Role play as Emergency Preparedness and acknowledge the report.** STANDARD: WBN Emergency Preparedness is notified of plan activation. COMMENTS:	___ SAT ___ UNSAT

STEP 16: **[STEP 14] NOTIFY** the NRC Resident Inspector by calling 1776 and **PROVIDING** the information on Appendix A. STANDARD: The NRC Resident Inspector is provided Appendix A information. **This step is critical as it alerts NRC to REP activation.** EVALUATOR NOTE: ***DO NOT allow actual call to NRC Resident.* Ensure call is to simulator instructor.** *****CUE:*** **Role play the NRC Resident and acknowledge the report.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 17:	**[STEP 15] REEVALUATE** the event using EPIP-1 as necessary to determine if conditions warrant reclassification. A. **IF** the condition warrants upgrading to a higher classification, **INITIATE** the appropriate steps of WBN EPIP's 3, 4, or 5. B. **IF** other plant conditions warrant the need for follow-up information, **COMPLETE** the Follow-up Notification Form, Appendix B and **NOTIFY** the TSC/CECC (if it is staffed), or NOTIFY the ODS direct by ODS Ringdown or No. 5-751-1700 or 5-751-2495 and **PROVIDE** the information. **IF** the ODS cannot be contacted within 10 minutes, the Tennessee Emergency Management Agency is to notified of the information by calling: 9-1-800-262-3300 or 9-1-615-741-0001 or 9-1-800-262-3400. C. IF the situation no longer exists complete Appendix B and TERMINATE the emergency by informing the ODS, NRC and the Duty Plant Manager. D. FAX Appendix B to the ODS. (# pre-programmed or 5-751-8620), or TEMA at 9-1-615-242-9635.	___ SAT ___ UNSAT
STANDARD:	The Security Shift Supervisor has no new information. Performer determines that no change in event classification is required and Appendix B is not required to be completed at this time.	
***CUE:**	**There have been no changes in the event.**	
COMMENTS:		

STEP 18: **[STEP 16] ENSURE** applicable notifications/actions *required by SPP-3.5 and SPP-3.1 have been made.* STANDARD: Applicable SPP-3.5 and SPP-3.1 notifications have been made. *****CUE:*** **All applicable notifications have been made then state that this JPM has been completed.** COMMENTS: **END OF TASK**	___ SAT ___ UNSAT

TIME STOP: _____

PERFORMER HANDOUT SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

THE CURRENT SIMULATOR CONDITIONS ARE NOT REPRESENTATIVE OF THIS JPM.

INITIAL CONDITIONS:

- The unit is at 100% RTP with all systems operable.
- There has been a severe weather watch issued for Rhea and McMinn counties.
- There have been wind gusts up to 40 MPH on site.
- You are the SM/SRO.

INITIATING CUES:

Approximately 3 minutes ago the Nuclear Shift Supervisor notified you that several of the on-shift AUO's wives are being held in a hostage situation that has been confirmed. The AUO's report that unless they comply with the hostage takers requests and shutdown the plant operations, their families will be injured.

Using this information provided to you by the crew and Nuclear Shift Supervisor, make the initial classification of this event and make required notifications according to the REP.

Portions of this JPM are time critical.

Facility: **Watts Bar** Date of Examination: 12/9-13/02
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. Transfer a 6.9KV RCP Board (Alt to Normal) per SOI-202.01 (JPM #042) 3-OT-JPMR042	DS	6
b. **Transfer ECCS to RHR Containment Sump per ES-1.3 (JPM #069) 3-OT-JPMR069**	MAS	3
c. Depressurize the RCS Per ES-0.4 (JPM #126) 3-OT-JPMR126	DAS	2
d. Respond to High Containment Pressure JPMR125A	DS	5
e. Transfer Steam Dumps to Tavg Mode (NRC-JPM-New)	NS	4S
f. Retrieve a Dropped Rod per AOI-2 (JPM #95A) JPMR095A	DAS	1
g. Remove SRM N132 from Service (NRC-JPM-New)	NLS	7

B.2 Facility Walk-Through

a. Respond to Steam Binding of 1A-A AFW Pump per SOI-3.02 (3-OT-JPMA065) 3-OT-JPMA065	DR	4S
b. Rolling 1B-B Diesel Generator for Water in Cylinders per SOI-82.02 (JPM #048) JPMA048	D	6
c. Perform LOCAL restart of Control and Service Air Compressors per AOI-10 (3-OT-JPMA001C) 3-OT-JPMA001C	DA	8

* 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 Note: **Bold items designate SROU JPMs.**

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

B.1.a JPMR042/Sim

Transfer A 6.9 KV RCP Board (Alt To Normal) Per SOI-202.01

CANDIDATE _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task: Transfer A 6.9 KV RCP Board (Alt To Normal) Per SOI-202.01

Alternate Path: N/A

Facility JPM #: 3-OT-JPMR042 Rev 2

K/A Rating(s): 062A4.01 [3.3/3.1] 2.1.30 [3.9/3.4] 2.1.23 [3.9/3.4]

Task Standard: The RCP 1A board is being fed from the Normal Feeder (without an inadvertent RCP trip) and the Alternate ACB Hand switch, 2522, has been aligned to allow Auto Transfer per SOI-202.01.

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator __X__ In-Plant _____ Perform __X__ Simulate _____

References: SOI-202.01 "6.9 KV Reactor Coolant Board 1A" Rev.6

Task Number:: RO-202-SOI-202-001 APPLICABLE FOR: RO/SRO

10CFR55.45: 2, 8, 12

Validation Time: 6 min. **Time Critical:** No

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Candidate: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

_____

_____

_____

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_____

_____

SIMULATOR OPERATOR INSTRUCTIONS:

1. Initialize to IC # 153

2. Place the Simulator in RUN

3. Acknowledge all alarms

4. This JPM has been pre-shot in IC #153. Should IC #153 be erased or fail to perform as expected then use the following set-up instructions:

   Initialize to IC #45.
   Transfer RCP 1 to its Alternate Supply per SOI-202.01 Section 8.2.
   Acknowledge all alarms.

SIMULATOR OPERATOR INSTRUCTIONS:

NONE

Tools/Equipment/Procedures Needed:

Ensure clean copy of SOI-202.01 in all copies of Operating Instructions on the Simulator Floor.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The Unit is in Mode 1 at 21% power.

RCP 1 is being fed off its alternate power source.

You are the Operator At The Controls.

INITIATING CUES:

US/SRO has directed you to transfer RCP 1 to its Normal Supply per SOI-202.01 and has granted approval to perform the task.

You are to notify the US/SRO when the transfer has been completed.

START TIME: _____

STEP 1: Obtain a copy of the procedure. **EXAMINER'S CUE:** ***After the performer has demonstrated the method of obtaining the correct instruction, the evaluator can provide a copy of the instruction.*** STANDARD: A copy of SOI-202.01 has been obtained and performer has turned to section 8.1. COMMENTS:	___ SAT ___ UNSAT
STEP 2: **[Step 1] OBTAIN** SRO approval. ****CUE: If asked, role play as Unit Supervisor and approve transfer of 1A Unit Board from it alternate supply to it normal supply.** STANDARD: Performer obtains SRO approval to perform task. (May assume approval granted since directed by Unit Supervisor to perform task.) COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

NOTE: If the Unit is out of service, Bd may be energized by backfeeding from USSTs.	
STEP 3: **[STEP 2] CHECK** voltage available to Normal ACB 2112 on 1-EI-57-57, USST 1A VOLTS [1-M-1] STANDARD: 1-EI-57-57 has been checked and normal voltage verified to be within the normal voltage range (between the red lines). COMMENTS:	___ SAT ___ UNSAT
STEP 4: **[STEP 3] ENSURE** 1-HS-68-8AA, RCP 1 NORMAL BKR & LIFT PMP [1-M-5], PUSHED IN to place handswitch in control of ACB 2112. STANDARD: 1-HS-68-8AA has been placed in the IN position. COMMENTS:	___ SAT ___ UNSAT

STEP 5: **[STEP 4] ENSURE** 1-HS-68-8BA, RCP 1 ALTERNATE BKR & XFER SELECTOR [1-M-5], PUSHED IN to place ACB 2522 auto transfer circuit in MANUAL. STANDARD: 1-HS-68-8BA has been verified in the IN position. COMMENTS:	___ SAT ___ UNSAT
STEP 6: **[STEP 5] MONITOR** 1-EI-68-8A, RCP 1 AMPS [1-M-5] during transfer to ensure RCP Amp load transfers to Normal supply. STANDARD: The performer verifies that the amps on 1-EI-57-8A rise during the transfer in the following steps. COMMENTS:	___ SAT ___ UNSAT
CAUTION Release handswitches SLOWLY after transfer is complete to prevent inadvertent breaker actuation.	
STEP 7: **[STEP 6] PLACE** 1-HS-68-8AA, RCP 1 NORMAL BKR & LIFT PMP control switch in START and **HOLD** until transfer is complete. STANDARD: 1-HS-68-8AA Hand switch is placed in the Start Position and held in the Start Position. **Step is critical to assure prevent loss of bus during performance of the next step.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

EVALUATOR NOTE: JPM Steps 8 and 9 evaluate procedure step 7.	
STEP 8: **[STEP 7] PLACE** 1-HS-68-8BA, RCP 1 ALTERNATE BKR & XFER SELECTOR, in STOP, and STANDARD: 1-HS-68-8BA has been placed in the STOP position, then, 1-HS-68-8AA is released. **Step is critical to allow board transfer without loss of bus or loads on the bus.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 9: **[STEP 7] ENSURE** Normal ACB 2112 CLOSED, and Alt ACB 2522 OPEN. STANDARD: 1. Normal Supply Bkr, 2112, red position indicating light verified ON. 2. Alternate Supply Bkr, 2522, green position indicating light verified ON. COMMENTS:	___ SAT ___ UNSAT

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 10:	**[STEP 7] IF** desired to place Board Transfer in AUTO, **THEN PULL** 1-HS-68-8BA, RCP 1 ALTERNATE BKR & XFER SELECTOR switch, out to PULL AUTO.	**CRITICAL STEP**
STANDARD:	1-HS-68-8BA placed in the AUTO position (Pull Out position). **Step is critical to allow rapid transfer to alternate should turbine generator trip occur.**	___ SAT ___ UNSAT
COMMENTS:		
STEP 11:	Notify Unit Supervisor that 6.9kV RCP Board 1A has been transferred to its normal supply. *****CUE:*** **When notified, acknowledge the report using repeat back.**	___ SAT ___ UNSAT
STANDARD:	The Unit Supervisor has been notified that 6.9kV RCP Board 1A is on its normal supply.	
COMMENTS:		
	END OF TASK	

TIME STOP: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

CANDIDATE CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The Unit is in Mode 1 at 21% power.

RCP 1 is being fed off its alternate power source.

You are the Operator At The Controls.

INITIATING CUES:

US/SRO has directed you to transfer RCP 1 to its Normal Supply per SOI-202.01 and has granted approval to perform the task.

You are to notify the US/SRO when the transfer has been completed.

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

B.1.b JPMR069/Sim

TRANSFER ECCS TO RHR CONTAINMENT SUMP PER ES-1.3

CANDIDATE _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task: Transfer ECCS To RHR Containment Sump Per ES-1.3

Alternate Path: Containment pressure requires continued operation of containment spray pump. Containment Sump Valve 1-FCV-63-73 fails a 4% on sump transfer and the respective RHR pump's suction from RWST will fully close. Performer must take RNO and stop and PULL-TO-OCK the affected RHR pump.

Facility JPM #: Modified 3-OT-JPMR069 Rev 4

K/A Rating(s):

006A3.03 [4.1/4.1]	006A4.01 [4.1/3.9]	006A4.02 [4.0*/3.8]
006A3.08 [4.2/4.3]	006A4.04 [3.7*/3.6]	006A4.05 [3.9/3.8]
006A4.08 [4.2/4.3]	2.1.20 [4.3/4.2]	2.1.23 [3.9/4.0]
2.1.31 [4.2/3.9]	2.1.30 [3.9/3.4]	2.2.20 [3.9/4.0]

Task Standard: The ECCS pump suction has been swapped over to the containment sump per ES-1.3

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator __X__ In-Plant _____ Perform __X____ Simulate _____

References: ES-1.3 "Transfer To Containment Sump" Rev. 11

Task Number:: RO-113-ES-1.3-001 APPLICABLE FOR: RO/SRO

10CFR55.45: 3, 6, 7, 8

Validation Time: 10 min. **Time Critical:** No

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Candidate: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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_____

_____

SIMULATOR OPERATOR INSTRUCTIONS:

1. Initialize to **IC # 156.**

2. Place H. O. on 1B Containment Spray Pump.

3. Acknowledge all alarms and clear motor trip-out white lights.

4. After performer indicates understanding of task, place simulator in RUN.

5. This JPM has been pre-shot in **IC # 156.** Should **IC # 156** be erased or fail to perform as expected then use the following set-up instructions:

   Initialize to **IC-50**.
   Insert **imf th01b 100** @ 100% Severity (Hot Leg Break Loop 2).
   Stop RCPs.
   Insert **rfi sir14** to on (Restore power to FCV-63-1).
   Ensure 1-FCV-1-153 and 1-FCV-70-156 (CCS to RHR Hx) are OPEN.
   Close 0-HS-70-197A (SFP HT EXCH Supply) and 1-HS-70-207 (CDWE Supply from Hdr 1B).
   Ensure CCS flows and pressures stabilize.
   Alarm Silence Generator Core Monitor Alarm
   Insert ZAO PDI3042 @ 4.5
   Insert ZAO PDI3043 @ 4.5
   Insert ZAO PDI3044 @ 4.5
   Insert ZAO PDI3045 @ 4.5
   Insert ZAO PR3045[1] @ 4.5
   Insert ZAO PR3045[2] @ 4.5
   Insert **ior zaopdr30133[1] 0.5** Cntmt Annulus ΔP.
   Insert **ior an:ov:03c116 ON** 125-D Hi Cntmt Press
   Insert **mrf csr04 off** to remove power to CS Pump B for tagout.
   Insert **imf rh09 (e1) 4** To fail FCV-63-73 to 4% assigned to trigger 1.
   Place simulator to FREEZE after transfer complete.

SIMULATOR OPERATOR INSTRUCTIONS:

ENSURE malfunction **rh09 to 4%** has been assigned to manual **trigger e1**.

SELECT page **rh1** to view containment sump valve FCV-63-73. After the evaluator is ready to place simulator in run, within the first few minutes RWST sump swapover will begin, and as **soon as** the **red light lights** on **1-FCV-63-73**, **insert imf itrigger** to activate **e1 trigger** which fails this valve at 4% open.

Tools/Equipment/Procedures Needed:

Ensure clean copy of ES-1.3 in the simulator copies on the Simulator Floor.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

A Large Break LOCA has occurred.

E-0 was entered and transition made to E-1.

All steps of E-1 prior to and including Steps 24a & b have been completed.

You are the Operator at the Controls.

INITIATING CUES:

The Unit Supervisor directs you to monitor RWST level and ensure transfer ECCS pumps suction to Containment Sump by procedure.

You are to notify the Unit Supervisor when the ECCS Pump transfer substeps are complete.

The containment spray pump suction will be transferred by another Unit Supervisor directive.

START TIME: _____

STEP 1: Obtain a copy of the appropriate procedure. **EXAMINER'S CUE:** ***After the performer has identified the correct instruction, the evaluator can provide a copy of the instruction.*** STANDARD: A copy of ES-1.3 has been obtained. COMMENTS:	___ SAT ___ UNSAT
CAUTION • **ECCS flow to RCS must be maintained at all times to ensure adequate core cooling.** • **Transfer to recirculation mode may cause high radiation in the Auxiliary Building.** **NOTE** • Performance of this instruction is a higher priority than performance of the FRs because it maintains ECCS pump suction. • The transfer sequence should be performed without delay. Implementation of FRs is delayed UNTIL transfer sequence is completed or transitioned from.	
STEP 2: **[1] ENSURE** both RHR pumps RUNNING STANDARD: Red breaker position indicating lights illuminated on both RHR Pump Hand switches (1-HS-74-10A & 1-HS-74-20A) or RHR Pump amps verified in normal range (1-EI-74-17A & 1-EI-74-26). COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 3: **[2] ESTABLISH** CCS to RHR heat exchangers [M-27B]: a. **ENSURE** RHR heat exchanger outlet valves 1-FCV-70-153 and 1-FCV-70-156 FULL OPEN. b. **CLOSE** SFP heat exchanger A CCS supply 0-FCV-70-197. c. **ENSURE** CCS flow to ESF supply header 1-FI-70-159 and 1-FI-70-165 greater than 5000 gpm. d. **MONITOR** level in CCS surge tanks. STANDARD: 1. 1-FCV-70-153 checked in the open by identified power disconnected valve open identifier and flow through heat exchanger. 2. 1-FCV-70-156 is opened with 1-HS-70-156 A and checked in the open position and red valve position light illuminated. 3. 0-FCV-70-197 is closed with 0-HS-70-197A and is checked closed by green position valve close light illuminated. 4. CCS flow verified on 1-FI-70-159 and 165 greater than 5000 gpm. 5. CCS Surge Tank level verified stable on 1-LI-70-63A and 99A. **Step is critical to suction supply to adequate cooling water to RHR heat exchangers** **EVALUATOR NOTE: Critical portion is underlined.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 4: **[3] CHECK** RWST less than 34%. STANDARD: RWST level indicators, 1-LI-63-50,51, 52, and 53 checked indicating less than 34%. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 5: **[4] CHECK** cntmt sump level greater than or equal to 16.1%. STANDARD: Cntmt Sump level indicators, 1-LI-63-180, 181, 182, and 183 checked indicating ≥16.1%. COMMENTS:	___ SAT ___ UNSAT
EVALUATOR NOTE PERFORMANCE STEPS 6 & 7 & 8 ARE PART OF THE SAME PROCEDURE STEP	
STEP 6: **[5] ENSURE** automatic switchover complete: a. **ENSURE** cntmt sump valves 1-FCV-63-72 and 1-FCV-63-73 OPEN. STANDARD: Performer ensures 1-FCV-63-73 is fully open by observing respective valve position red indicating light lit, green light off. Performer determines that 1-FCV-63-72 is **not fully open** by observing that the respective valve green and red lights remain LIT, respective pumps discharge pressure is lower the other train. Performer goes to RNO. COMMENTS:	___ SAT ___ UNSAT

STEP 7:	**[5 RNO]** **IF** NO cntmt sump valve can be opened, **THEN** ****GOTO** ECA-1.1, Loss of RHR Sump Recirculation. **IF** ONE cntmt sump valve can **NOT** be fully opened, **THEN STOP** and **PULL TO LOCK RHR** pump on the associated train. **Step is critical because RHR pump is operating with just recirculation flow and suction path to Cntmt sump has not been properly established.** STANDARD: Performer PULL-TO-LOCK RHR Pump 1A-A with 1-HS-74-10A. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 8:	**[5b]** **ENSURE** RWST to RHR suction valves 1-FCV-74-3 and 1-FCV-74-21 CLOSED . STANDARD: Performer ensures 1-FCV-74-3 and 21 green valve position indicating lights are illuminated. COMMENTS:	___ SAT ___ UNSAT

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

EVALUATOR NOTE: Performance Step 9 is a Continuous Action Step. **CAUTION** **If RWST level decreases to 8%, then any charging, SI, or *cntmt spray pump taking suction from* the RWST must be stopped.**	
STEP 9: **[6] MONITOR** RWST level greater than 8%. STANDARD: RWST level is monitored by performer. No other action required unless RWST ≤8%. If RWST level reaches 8% the performer must stop and pull to lock the pumps listed below, until swapover is complete. The RHR pumps are not to be stopped. [1A & 1B CCP's, 1A & 1B SIP's, and 1A &1B CSP's] **EVALUATOR NOTE: This step is critical only if RWST reaches 8%.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 10: **[7] DETERMINE** if cntmt spray should be stopped: a. **MONITOR** cntmt press less than 2.0 psig. STANDARD: Cntmt press is determined to be greater than 2.0 psig by any of the following 1-PDI-30-42, 1-PDI-30-43, 1-PDI-30-44, 1-PDI-30-45, or 1-PR-30-45 and performer proceeds to the RNO. COMMENTS:	___ SAT ___ UNSAT

STEP 11: **[7a RNO]** **WHEN** cntmt press less than 2.0 psig, **THEN PERFORM** Substeps 7b thru e. ****GO TO** Step 8. STANDARD: Performer proceeds to Instruction Step 8. COMMENTS:	___ SAT ___ UNSAT
STEP 12: **[8]** **DETERMINE** if ONE train cntmt spray should be stopped: a. **CHECK** BOTH trains cntmt spray delivering flow. STANDARD: Performer determines train B cntmt spray OOS (Hold Order on 1B CS pump, hand switch in PULL-TO- LOCK) and proceeds to RNO. COMMENTS:	___ SAT ___ UNSAT
STEP 13: **[8a RNO]** ****GO TO** Step 9. STANDARD: Performer proceeds to Instruction Step 9. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 14: **[9] IF** RCS press rises to greater than 1350 psig, **THEN STOP** SI pumps. STANDARD: Performer determines RCS press less than 1350 psig by any of the following: 1-PR-68-63, 1-PR-68-340, 1-PI-68-340A/334/323/322. COMMENTS:	___ SAT ___ UNSAT
EVALUATOR NOTE STEPS 15 THROUGH 26 MUST BE PERFORMED IN SEQUENCE. **CAUTION** **If a valves fails during the transfer sequence, any corrective action should be postponed UNTIL transfer is complete, EXCEPT as required to satisfy each step.** **NOTE** Each transfer sequence action is identified by a number on the control board (e.g. #1).	
STEP 15(s): **[10]** (#1) **ISOLATE** SI pump miniflow: • **CLOSE** 1-FCV-63-3 • **CLOSE** 1-FCV-63-175 • **CLOSE** 1-FCV-63-4 STANDARD: Performer isolates SI pump miniflow using 1-HS-63-3A, 1-HS-63-175A and 1-HS-63-4A. **Step is critical to prevent Cntmt Sump water from being pumped to RWST.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 16(s): **[11]** (#2) **ISOLATE** RHR crossties: • **CLOSE** 1-FCV-74-33 • **CLOSE** 1-FCV-74-35 STANDARD: Performer isolates RHR crossties using 1-HS-74-33A and 1-HS-74-35A **Step is critical to separate the ECCS trains.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 17(s): **[12]** (#3) **ALIGN** charging pump and SI pump supply from RHR: • **OPEN** 1-FCV-63-6 • **OPEN** 1-FCV-63-7 • **ENSURE** 1-FCV-63-177 OPEN STANDARD: Performer aligns charging and SI pumps' supply from RHR using 1-HS-63-6A, 1-HS-63-7A, and 1-HS-63-177A. **Step is critical to suction supply to ECCS pumps..** **EVALUATOR NOTE: Critical portion is underlined.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

NOTE 1-FCV-63-8 and 1-FCV-63-11 are interlocked with the SI pump miniflows being full closed.	
STEP 18(s): **[13]** (#4) **ALIGN** RHR discharge to charging pump and SI pump suction: a. **OPEN** 1-FCV-63-8 b. **OPEN** 1-FCV-63-11 STANDARD: Performer aligns RHR discharge to charging and SI pumps' suction using 1-HS-63-8A and 1-HS-63-11A. **Step is critical to suction supply to ECCS pumps.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 19(s): **[14]** **DO NOT CONTINUE** this Instruction UNTIL Steps 10 thru 13 complete. STANDARD: Performer determines that Instruction Steps 10 through 13 are complete. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

EVALUATOR NOTE: Performance Step 20 is CAUTION just before performance Step 21.	
STEP 20(s): **CAUTION IF the RCS pressure is greater than 1350 psig, the SI pumps should NOT be restarted because the recirc path is isolated.** STANDARD: Performer determines RCS press less than 1350 psig by any of the following: 1-PR-68-63, 1-PR-68-340, 1-PI-68-340A/334/323 /322. COMMENTS:	___ SAT ___ UNSAT
STEP 21(s): **RESTART** any charging pumps and SI pumps previously stopped due to RWST level less than 8%. STANDARD: No performer action required unless the RWST level did reach 8%, THEN any pump stopped must be restarted. [**NOTE**: If the performer stopped any pumps due to RWST level **< 8% THEN, the RESTARTING OF THESE WOULD BE CONSIDERED CRITICAL STEPS IN THIS EVENT.**] COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

CAUTION **If offsite power is lost after SI reset, manual action will be required to restart the SI pumps and RHR pumps due to loss of SI start signal.•**	
STEP 22(s): **[16]** (#5) **RESET** SI, and **CHECK** the following: • SI ACTUATED permissive DARK. • AUTO SI BLOCKED permissive LIT. STANDARD: Annunciator window 70B is verified to be lit and annunciator window 70A is verified to be NOT lit. COMMENTS:	___ SAT ___ UNSAT
STEP 23(s): **[17]** **IF** offsite power is lost, **THEN**: a. **PLACE** charging pumps in PULL TO LOCK b. **RESTART** RHR pumps. c. **RESTART** charging pumps. d. **IF** RCS press less than 1350 psig, **THEN** **RESTART** SI pumps. STANDARD: No performer action required, stated condition does not apply. COMMENTS:	___ SAT ___ UNSAT

CAUTION **ECCS pump discharge flow and motor amps should be monitored WHILE closing the RWST suction valves.**	
STEP 24(s): **[18]** (#6) **ISOLATE** charging pump suction from RWST: a. **CLOSE** 1-LCV-62-135 b. **CLOSE** 1-LCV-62-136 c. **ENSURE** 1-HS-62-135A in A-AUTO (pushed in). d. **ENSURE** 1-HS-62-136A in A-AUTO (pushed in). STANDARD: Charging pump suction isolated by performer using 1-HS-62-135A and 1-HS-62-136A. Both hand switches left in A-AUTO. **Step is critical to isolate RWST from CCPs.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 25(s): **[19]** (#7) **ISOLATE** SI pump suction from RWST: • **CLOSE** 1-FCV-63-5. STANDARD: Performer isolates SI pump suction from RWST using 1-HS-63-5A. **Step is critical to isolate RWST from SIPs.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 26(s): **[20]** (#8) **ISOLATE** RHR suction from RWST: a. **ENSURE** power restored to 1-FCV-63-1 USING Appendix A (ES-1.3), 1-FCV-63-1 Breaker Operation. b. **CLOSE** 1-FCV-63-1. **CUE: If asked, state that power is on 1-FCV-63-1.** STANDARD: Performer verifies power restored to 1-FCV-63-1 and closes 1-FCV-63-1. COMMENTS:	___ SAT ___ UNSAT
STEP 27: *Notify Unit Supervisor that ECCS Pumps suction have been transferred to the Containment Sump.* ***CUE:*** **When notified, acknowledge the report using repeat back.** STANDARD: Unit Supervisor has been notified that ECCS Pump Suction transfer to the Containment Sump has been completed. COMMENTS: **END OF TASK**	___ SAT ___ UNSAT

TIME STOP: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

CANDIDATE CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

A Large Break LOCA has occurred.

E-0 was entered and transition made to E-1.

All steps of E-1 prior to and including Steps 24a & b have been completed.

You are the Operator at the Controls.

INITIATING CUES:

The Unit Supervisor directs you to monitor RWST level and ensure transfer ECCS pumps suction to Containment Sump by procedure.

You are to notify the Unit Supervisor when the ECCS Pump transfer substeps are complete.

The containment spray pump suction will be transferred by another Unit Supervisor directive.

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

B.1.c JPMR126/Sim

DEPRESSURIZE THE RCS PER ES-0.4

APPLICANT _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task: Depressurize The RCS Per ES-0.4

Alternate Path: When PORV is opened to reduce pressure to 1600 psig, the PORV will fail open, the performer should attempt to close valve, then close the respective block valve.

Facility JPM #: Modified from 3-OT-JPM126R Draft

K/A Rating(s): 2.1.23 [3.9/4.0]

Task Standard: Performer follows rules of usage to complete ES-0.4 Step 7 and does NOT open the Aux Spray valve to depressurize the RCS. PORV is used to lower RCS pressure, when PORV fails to close, the performer should attempt to close PORV, then close the respective block valve.

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator __X__ In-Plant _____ Perform __X__ Simulate _____

References: ES-0.4, NATURAL CIRCULATION COOLDOWN WITH STEAM VOID IN VESSEL (WITHOUT RVLIS), Rev 5

Task Number:: RO-113-ES-0.4-001 APPLICABLE FOR: RO/SRO

10CFR55.45: 3, 6, 7, 8, 12

Validation Time: 4 min. **Time Critical:** No

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Applicant: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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SIMULATOR OPERATOR INSTRUCTIONS:

1. Initialize to IC # **174**.

2. Acknowledge all alarms.

3. Freeze simulator until the performance indicates understanding of the task and time is allowed for control board familiarization.

4. NOTE: This JPM has been preshot in IC **#174**. The following is the setup instructions if needed:

   Initialize to IC #50
   Override the CCS cooling water valves to RCPs closed
   Manually trip Reactor and Shutdown RCPs
   Complete E-0 first four steps, transition to ES-0.1, then to ES-0.2 and then complete the first six step of ES-0.4.
   Complete AOI-17 post trip actions.
   Insert **ior zdihs7087a close** to isolate thermal barrier cooling to RCPs
   Insert **ior zdihs7090a close** to isolate thermal barrier cooling to RCPs
   Insert **ior zdihs70133a close** to isolate thermal barrier cooling to RCPs
   insert **ior zdihs70134a close** to isolate thermal barrier cooling to RCPs
   Insert **imf rx30A** to lockup RVLIS Display A.
   Insert **imf rx30B** to lockup RVLIS Display B.
   Insert **ior zdihs6269 close** to fail FCV-62-69 closed to isolate letdown.
   Insert **ior zaoli2233a 0.5** to place B CSST level at 50,000 gal.
   Insert **ior zaoli2230a 2** to place A CSST level at 200,000 gallons.
   Cooldown plant to pont where Hot leg temperature is just below 500 °F.
   Take particular care and follow procedure and do not cause and auto SI on low pressure.
   Assign the following manual triggers which will fail a PORV fully OPEN:
   ior zdihs68340aa (e1) open To fail PORV 340 open.
   ior zdihs68334a (e2) open To fail PORV 334 open

   Acknowledge all alarms .
   FREEZE the simulator till the performer indicates an understanding of the task.

5. After performer indicates understanding of task, place simulator in run.

SIMULATOR OPERATOR INSTRUCTIONS:

View Malfunction Summary Page and ENSURE that triggers to fail respective PORVs open have been assigned:
imf itrigger open for PORV 340 or
imf itrigger2 open for PORV 334

View page rc2 on instructor console. When performer opens a PORV to lower RCS pressure in JPM step 3, activate the appropriate trigger with the ETM summary page or by entering:

imf itrigger for PORV 340 or
imf itrigger2 for PORV 334

Tools/Equipment/Procedures Needed:

Ensure clean copy of ES-0.4 Emergency Operating Instructions on the Simulator Floor.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Unit was tripped due to loss of CCS to the RCP oil coolers.

The operating crew was unable to restore cooling to the RCPs.

Both RVLIS have been proven to be INOPERABLE.

Decision has been made to cooldown per ES-0.4, NATURAL CIRCULATION COOLDOWN WITH STEAM VOIDS IN VESSEL (WITHOUT RVLIS) and the Instruction has been completed through step 6.

You are the Operator at the Controls.

INITIATING CUES:

The Unit Supervisor has directed you to perform ES-0.4 Step 7.

You are to notify the Unit Supervisor when Step 7 has been completed.

START TIME: _____

STEP 1: Obtain the correct procedure. **EXAMINER'S CUE: After the performer has demonstrated the method of obtaining the correct instruction, the evaluator can provide a copy of the instruction.** STANDARD: A copy of ES-0.4 has been obtained. COMMENTS:	___ SAT ___ UNSAT
STEP 2: **[Step 7] DEPRESSURIZE** RCS to 1600 psig: a. **CHECK** letdown in service. STANDARD: Performer determines that letdown is NOT in service and goes to the RNO. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 3:	**[Step 7 RNO] DEPRESSURIZE** RCS with one pzr PORV. ** **GO TO** Step 7c.	**CRITICAL STEP**
STANDARD:	Performer determines that PORV is available and opens a PORV to lower RCS pressure to 1600 psig. **Step is critical to comply with step to lower RCS pressure to 1600 psig since RCS letdown is not available nor in service.**	___ SAT ___ UNSAT
COMMENTS:		

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 4: **[STEP 7c] CHECK** RCS press less than 1600 psig. STANDARD: Performer determines that RCS pressure is less than 1600 psig and to the next step. COMMENTS:	___ SAT ___ UNSAT
STEP 5: **[STEP d] STOP** RCS depressurization. **CUE: After performer closes the respective PORV block valve to stop RCS depressurization, state that this completes the JPM. We'll stop here.** STANDARD: Performer attempts closing PORV opened. When PORV fails to close, the performer closes the block valve for the respective PORV that has failed open. **Step is critical to comply with prevent RCS pressure lowering to saturation which will affect natural circulating cooling of the RCS and lead to larger void formation in the reactor vessel head.** COMMENTS: **END OF TASK**	**CRITICAL STEP** ___ SAT ___ UNSAT

TIME STOP: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

APPLICANT CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Unit was tripped due to loss of CCS to the RCP oil coolers.

The operating crew was unable to restore cooling to the RCPs.

Both RVLIS have been proven to be INOPERABLE.

Decision has been made to cooldown per ES-0.4, NATURAL CIRCULATION COOLDOWN WITH STEAM VOIDS IN VESSEL (WITHOUT RVLIS) and the Instruction has been completed through step 6.

You are the Operator at the Controls.

INITIATING CUES:

The Unit Supervisor has directed you to perform ES-0.4 Step 7.

You are to notify the Unit Supervisor when Step 7 has been completed.

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

B.1.d JPMR125B/Sim

Respond To A High Containment Pressure Per FR-Z.1

CANDIDATE _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task: Respond To A High Containment Pressure Per FR-Z.1.

Alternate Path: N/A

Facility JPM #: 3-OT-JPMR125B Rev 3

K/A Rating(s): 026-A4.01 [4.5/4.3] 2.1.23 [3.9/4.0] 2.1.32 [3.4/3.8]

Task Standard: Containment Spray Pump 1A-A is removed from service due to the containment pressure being less than 9.5 psig.

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator __X__ In-Plant _____ Perform __X____ Simulate _____

References: FR-Z.1 "High Containment Pressure" Rev. 8; ECA-1.1 "Loss Of RHR Sump Recirculation" Rev 8.

Task Number:: RO-113-FR-Z.1-001 APPLICABLE FOR: RO/SRO
RO-113-ECA-1.1-001

10CFR55.45: 3, 4, 7, 8, 12, 13

Validation Time: 8 min. **Time Critical:** No

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Candidate: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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SIMULATOR OPERATOR INSTRUCTIONS:

1. Initialize to IC # **175**.

2. Acknowledge all alarms.

3. Place HOLD ORDER on RHR pump 1A-A.

4. Ensure Source Range Count Rate is audible in control room.

5. Freeze simulator until the performer indicates understanding of the task and time is allowed for control board familiarization.

6. NOTE: This JPM has been pre-shot in **IC #125.** Should **IC #125** be erased or fail to perform as expected then use the following set-up instructions:

   a. Initialize to IC-50.

   b. Insert malfunctions:
      imf th01d 50 LOCA - Hot Leg Loop 4.
      Imf rh01b 10: Trip of 1B-B RHR pump on IOC after 10 minute time delay.

   c. Insert overrides for the following:
      ior zaopdi3042 5
      ior zaopdi3043 5
      ior zaopdi3044 5
      ior zaopdi3045 5
      ior zaopr3045[1] 5
      ior zaopr3045[2] 5
      ior zaopdr30133[1] 0.5 Cntmt Annulus ΔP
      ior an:ov:03c123 on Annunciator window 125-A
      ior an:ov:04c005 on Annunciator window 125-B
      ior an:ov:04c012 on Annunciator window 125-C
      ior an:ov:03c116 on Annunciator window 125-D
      ior zlohs7410a[1] off
      mrf sir14 on (power to 63-1)
      mrf sir06 on (power to 63-22)
      mrf sir01 on (power to cold leg accumulator isolation valves)
      Then Follow instructions above.

   d. Place HOLD ORDER on RHR pump 1A-A

   e. Freeze simulator until the performer indicates understanding of the task and time is allowed for control board familiarization.

SIMULATOR OPERATOR INSTRUCTIONS:

NONE

Tools/Equipment/Procedures Needed:

Ensure clean copy of ECA-1.1 & FR-Z.1 in all copies of Emergency Instructions on the Simulator Floor.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Unit was at 100% RTP

1A-A RHR pump was out of service and clearance issued to repair power cable.

A Reactor Trip and Safety Injection occurred due to a LOCA.

The crew transitioned to E-1, Loss of Reactor or Secondary Coolant through step 19, and then to ECA-1.1, Loss of RHR Sump Recirculation due to loss of 1B-B RHR pump.

While performing ECA-1.1, Step 3a, the STA reports that the Containment Status Tree has an ORANGE path to FR-Z.1, High Containment Pressure.

You are the Operator At The Controls.

INITIATING CUES:

The Unit Supervisor directs you to perform FR-Z.1.

You are to notify the Unit Supervisor when FR-Z.1 has been completed.

START TIME: _____

STEP 1: Obtain the proper procedure. STANDARD: A copy of FR-Z.1 has been obtained. **EXAMINER'S CUE:** ***After the performer has demonstrated the method of obtaining the correct instruction, the evaluator can provide a copy of the instruction.*** COMMENTS:	___ SAT ___ UNSAT
EVALUATOR NOTE Step 2 is a caution and note prior to step 1 in FR-Z.1	
STEP 2: **CAUTION** IF ECA-1.1, Loss of RHR Sump recirculation, is in effect, the number of cntmt spray pumps to be operated is directed in ECA-1.1 rather than in this Instruction. NOTE Adverse containment setpoints [ADV] should be used where provided due to Phase B actuation. STANDARD: Performer determines that ECA-1.1 is in effect and the number of spray pumps to be operated is controlled by that instruction. (May or may not refer to the ECA at this time.) COMMENTS:	___ SAT ___ UNSAT

STEP 3: **[STEP 1] ENSURE** cntmt spray operation: a. Cntmt spray signal ACTUATED. b. Cntmt spray pumps RUNNING c. Cntmt spray valves 1-FCV-72-2 and 1-FCV-72-39 OPEN. d. Cntmt spray pump suction valves OPEN: • Valves from RWST: 1) 1-FCV-72-21 and 2) 1-FCV-72-22, OR OR • Valves from cntmt sump: 1) 1-FCV-72-44 and 2) 1-FCV-72-45 from cntmt sump e. Cntmt spray flow: • 1-FI-72-34 • 1-FI-72-13	**CRITICAL STEP** ___ SAT ___ UNSAT
STANDARD: *Performer determines, from ECA-1.1, that ONE containment* spray pump should be in operation and removes either the 1A-A CSP from service by placing 1-HS-72-27A to the STOP position, then to the PTL position or the 1B-B CSP from service by placing 1-HS-72-10A to the STOP position, then to the PTL position . **Step is critical to conserve RWST inventory.** **NOTE TO EVALUATOR: Discharge for Cntmt Spray pump which is secured may or may not be closed by applicant.** COMMENTS:	

STEP 4: **[STEP 2] ENSURE** cntmt isolation: a. Phase A isolation: • Train A GREEN. • Train B GREEN. STANDARD: Performer determines that the isolation signals are present on the MISSPs, 1-XX-55-6C & 1-XX-55-6D and checks both Train of each are green as indicated by green indicating lights on for each component in each Train on CNTMT ISOL STATUS PNL, 1-XX-55-6E & 1-XX-55-6F. COMMENTS:	___ SAT ___ UNSAT
STEP 5: **[STEP 2b]** Cntmt Vent isolation: • Train A GREEN. • Train B GREEN. STANDARD: Performer determines that the isolation signals are present on the MISSPs, 1-XX-55-6C & 1-XX-55-6D and checks both Train of each are green as indicated by green indicating lights on for each component in each Train on CNTMT ISOL STATUS PNL, 1-XX-55-6E & 1-XX-55-6F. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 6: **[STEP 2c]** Phase B isolation: • Train A GREEN. • Train B GREEN. STANDARD: Performer determines that the isolation signals are present on the MISSPs, 1-XX-55-6C & 1-XX-55-6D and checks both Train of each are green as indicated by green indicating lights on for each component in each Train on CNTMT ISOL STATUS PNL, 1-XX-55-6E & 1-XX-55-6F. **NOTE TO EVALUATOR: Cntmt Air Return Fans will be operating (which are the only red lights lit on the Phase B MISSPs.** COMMENTS:	___ SAT ___ UNSAT
STEP 7: **[STEP 3]** **ENSURE** MSIVs and bypasses CLOSED. STANDARD: Performer verifies green indicating lights above the hand switches for the MSIVs (1-HS-1-4A, 1-HS-1-11A, 1-HS-1-22A, & 1-HS-1-29A). Note: The bypass normal configuration is closed with power removed for the conditions in this JPM. COMMENTS:	___ SAT ___ UNSAT

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 8: **[STEP 4] PLACE** steam dump controls OFF. • 1-HS-1-103A, STEAM DUMP FSV "A". • 1-HS-1-103B, STEAM DUMP FSV "B". STANDARD: 1-HS-1-103A and 1-HS-1-103B positioned to OFF. COMMENTS:	___ SAT ___ UNSAT
STEP 9: **[STEP 5] ENSURE** all four RCPs STOPPED. STANDARD: Performer verifies green indicating lights above the hand switches for the RCPs or that the amp meters for each RCP indicate Zero. *****CUE:* After this step is complete. State that the CRO will complete FR-Z.1, then state "We'll stop here"** COMMENTS: **END OF TASK**	___ SAT ___ UNSAT

TIME STOP: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

CANDIDATE CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Unit was at 100% RTP

1A-A RHR pump was out of service and clearance issued to repair power cable.

A Reactor Trip and Safety Injection occurred due to a LOCA.

The crew transitioned to E-1, Loss of Reactor or Secondary Coolant through step 19, and then to ECA-1.1, Loss of RHR Sump Recirculation due to loss of 1B-B RHR pump.

While performing ECA-1.1, Step 3a, the STA reports that the Containment Status Tree has an ORANGE path to FR-Z.1, High Containment Pressure.

You are the Operator At The Controls.

INITIATING CUES:

The Unit Supervisor directs you to perform FR-Z.1.

You are to notify the Unit Supervisor when FR-Z.1 has been completed.

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

B.1.e JPM/Sim

TRANSFER STEAM DUMPS TO Tavg MODE PER GO-3

APPLICANT _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task: Transfer Steam Dumps To Tavg Mode Per GO-3

Alternate Path: N/A

Facility JPM #: New

K/A Rating(s): 041A4.03 [2.4*/2.5*] 2.1.20 [4.3/4.2]

Task Standard: Steam Dump Valves have been transferred to the STEAM PRESSURE MODE, and controlling without inadvertent overcooling of the RCS (> 10°F).

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator __X__ In-Plant _____ Perform __X__ Simulate _____

References: GO-3, Unit Startup From Less Than 4% Reactor Power To 30% Reactor Power, Rev 12.

Task Number:: RO-001-SOI-1.02-017 APPLICABLE FOR: RO/SRO
RO-001-SOI-1.02-003

10CFR55.45: 1, 2, 4, 5, 6, 7

Validation Time: 10 min. **Time Critical:** No

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Applicant: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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SIMULATOR OPERATOR INSTRUCTIONS:

1. Initialize to **IC # 176**

2. Acknowledge all alarms.

3. Freeze the simulator until the performer indicates understanding of the task.

4. NOTE: This JPM has been preshot in **IC #176**. Should **IC # 176** be erased or fail to perform as expected then use the following set-up instructions:

   Initialize to IC 46
   Tie main generator to grid, increase load on turbine and reactor power to about 22% (with steam dumps in pressure mode at approximately 5% demand)
   Complete actions of GO-3 up through Section 5.4 Step 1.
   Acknowledge all alarms .
   FREEZE the simulator.

5. After performer indicates understanding of task, place simulator in run.

SIMULATOR OPERATOR INSTRUCTIONS:

Ensure Evaluator has signed copy of GO-3 completed to Section 5.4 Step 1 complete.

Tools/Equipment/Procedures Needed:

Ensure clean copy of GO-3 and SOI-1.02 in all copies of Operating Instructions on the Simulator Floor.

Ensure Evaluator has signed copy of GO-3 completed to Section 5.4 Step 1 complete.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The Unit is in startup between 20 and 24% reactor power.

Steam dumps are approximately 5% open.

Control Rods are in manual.

You are the Control Room Operator.

INITIATING CUES:

You are directed by the Unit Supervisor to transfer the steam dumps to Tavg MODE per GO-3.

GO-3 has been completed through Section 5.4 Step 1.

You are to notify the Unit Supervisor when the steam dump transfer is complete.

START TIME: _____

STEP 1: Obtain the correct procedure. STANDARD: A copy of GO-3 has been obtained. **EXAMINER'S CUE:** ***The evaluator to provide a copy of the Instruction with steps signed off through Section 5.4 Step 1 complete.*** COMMENTS:	___ SAT ___ UNSAT
NOTE 1 Tavg is programmed from 557°F at no load to 588.2°F at 100%, at a rate of 0.31°F/% power. **NOTE 2** Pzr level is programmed from 25 to 60% as a function of Tavg.	

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 2: **[2] MONITOR** the following as load rises: • Tavg following Tref program. • RCP seal flow between 8 and 13 gpm per pump. • PZR level on program • All RPIs, Step Counters, Loop ΔT, and NIS for correct power distribution, *quadrant power tilts, rod insertion, rod* misalignment, inoperable RPIs, and inoperable rods.	___ SAT ___ UNSAT
STANDARD: Performer determines all parameters are acceptable for current plant conditions with steam dumps slightly open (turbine has not been load ed enough to close steam dumps).	
NOTE TO EVALUATOR: Tavg/Tref error is about 4.2 °F. Steam dump demand is ≈ 5%. Performer should determine that turbine load should be raised to close valves. If asked about inserting control rods to reduce Tavg/Tref mismatch, do not allow rods to be used to reduce this mismatch.	
COMMENTS:	

STEP 3: **[3] COMPARE** Tag, ΔT, and NIS to verify indications are consistent with expected values. STANDARD: Performer determines Tavg, ΔT, and NIS are consistent with expected values. COMMENTS:	___ SAT ___ UNSAT
STEP 4: **[4] WHEN** Turbine load is greater than 15%, **THEN** • **VERIFY** Permissive 66-A, C-5 LO TURB IMPULSE PRESS ROD BLOCK, is NOT LIT. • **IF** auto rod control is desired, **THEN PLACE** rod control in AUTO per SOI-85.01. *****CUE:*** **Auto Rod Control is NOT desired.** STANDARD: Performer determines Permissive 66-A, C-5 LO TURB IMPULSE PRESS ROD BLOCK, is NOT LIT. Performer leaves Rod Control in MANUAL. **NOTE TO EVALUATOR: If asked about inserting control rods to reduce Tavg/Tref mismatch, do not allow rods to be used to reduce this mismatch.** COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

NOTE TO EVALUATOR: *The following step evaluates the performers efforts to raise turbine load to close steam dumps.*	
STEP 5: Raise turbine load by: • **PUSH** REFERENCE CONTROL Δ (raise) button to set desired load in SETTER display. • **PUSH** the GO button. *****CUE:*** **IF asked, role play as Unit Supervisor and concur with raising turbine load.** STANDARD: Performer raises turbine load using the reference control raise to set desired value in Setter and pushed go. Performer monitors turbine load rise, and monitors steam dump demand. Turbine load in raised sufficiently to close steam dumps. **This step is critical to get steam dumps closed.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
CAUTION **If the Steam Dumps cycle, the MFP and Bypass Regs may swing, and control rods may respond if in Auto.**	
STEP 6: **[5]** **WHEN** steam dump demand (1-XI-1-33) reduces to zero, **THEN TRANSFER** Steam Dumps to Tavg mode by performing the following: STANDARD: Performer determines that Steam Dump demand indicator 1-XI-1-33 is reading zero prior to proceeding to next step. **Step is critical for to avoid swing in steam pressure during task performance.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 7: **[5a] PLACE** 1-HS-1-103A, STEAM DUMP FSV "A", and 1-HS-1-103B, STEAM DUMP FSV "B", to OFF. STANDARD: Performer places Steam Dump FSV "A" 1-HS-1-103A and FSV "B" 1-HS-1-103B to the OFF position. **Step is critical for to ensure steam dump valves do not *spuriously open during the next step.*** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 8: **[5b] PLACE** 1-HS-1-103D, STEAM DUMP MODE to T AVG. STANDARD: Performer places 1-HS-103D, Steam Dump MODE to the Tavg position. **Step is critical to permit steam dumps to operate when armed for load rejection or reactor trip.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 9: **[5c]** **IF** Permissive 66-E, C-7 LOSS OF LOAD STM DUMP INTERLOCK, is LIT, **THEN** **[1] MOMENTARILY PLACE** 1-HS-1-103D to RESET. **[2] VERIFY** Permissive 66-E is NOT LIT. STANDARD: Performer determines that Permissive 66-E , C-7 LOSS OF LOAD STM DUMP INTERLOCK is NOT LIT, and proceeds to the next step. COMMENTS:	___ SAT ___ UNSAT
STEP 10: **[5d]** **ADJUST** 1-PIC-1-33, STEAM DUMP PRESS CONTROL, to 84% and place in AUTO. STANDARD: Performer verifies that steam dump pressure controller 1-PIC-1-33 setpoint is 84% and places the controller in AUTO. **This step is only critical if the performer had adjusted the setpoint in an effort to reduce Tavg/Tref error.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

NOTE If Tavg is greater than Tref, a demand will be indicated in Tavg mode, however, the dumps will NOT operate until armed by a load rejection or a Reactor trip signal.	
STEP 11: **[5e] PLACE** 1-HS-1-103A, STEAM DUMP FSV "A", and 1-HS-1-103B, STEAM DUMP FSV "B", to ON. STANDARD: Performer places Steam Dump FSV "A" 1-HS-1-103A and FSV "B" 1-HS-1-103B to the ON position. **Step is critical to enable steam dump to operate when armed.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 12: Notify the Unit Supervisor that the steam dump valves have been transferred to the Tavg mode. STANDARD: Performer notifies the Unit Supervisor that steam dumps have been transferred to the Tavg MODE. COMMENTS: **END OF TASK**	___ SAT ___ UNSAT

TIME STOP: _____

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

APPLICANT CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The Unit is in startup between 20 and 24% reactor power.

Steam dumps are approximately 5% open.

Control Rods are in manual.

You are the Control Room Operator.

INITIATING CUES:

You are directed by the Unit Supervisor to transfer the steam dumps to Tavg MODE per GO-3.

GO-3 has been completed through Section 5.4 Step 1.

You are to notify the Unit Supervisor when the steam dump transfer is complete.

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

B.1.f JPMR095A/Sim

RETRIEVE A DROPPED ROD PER AOI-2

CANDIDATE _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task: RETRIEVE A DROPPED ROD PER AOI-2

Alternate Path: Rod cannot be aligned requiring use of alternate path in AOI-2.

Facility JPM #: 3-OT-JPMR095A Rev 1

K/A Rating(s):

001A4.03	(4.0/3.7)	001A4.06	(2.9/3.2)	2.1.30	(3.9/3.4)
2.1.23	(3.9/4.0)	2.4.4	(4.0/4.3)	003AA1.02	(3.6/3.4)
003AA1.03	(3.6/3.3)	003AK3.04	(3.8/4.1	003AK3.09	(3.0/3.5)

Task Standard: Performer prepares for the withdrawal of the dropped rod per AOI-2, Section 3.3, Steps 16-27.

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator __X__ In-Plant _____ Perform __X__ Simulate _____

References: AOI-2 "Malfunction Of The Reactor Control System" Rev.25

Task Number:: RO-085-AOI-2-004 APPLICABLE FOR: RO/SRO

10CFR55.45: 2, 3, 4, 5, 6, 12, 13

Validation Time: 19 min. **Time Critical:** No

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Candidate: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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SIMULATOR OPERATOR INSTRUCTIONS:

1. Initialize to IC # **177**.

2. Ensure Bank Step Counters at correct settings.

3. Acknowledge all alarms.

4. Freeze simulator until the performance indicates understanding of the task and time is allowed for control board familiarization.

5. NOTE: This JPM has been preshot in IC **#177**. The following is the setup instructions if needed:
   Reset to IC **#51**
   imf rd07b. Causes C-5 rod to drop.
   Dilute 700 gallons
   Ensure Shutdown Bank and Control Banks that are fully withdrawn have step counters at correct setting (Simulator at 228, check K0015 which contains the current monthly full out rod position on ICS computer).

6. Ensure CR in Manual

7. Ensure Power Range NIs at 75% or less.

8. After performer indicates understanding of task, place simulator in run.

SIMULATOR OPERATOR INSTRUCTIONS:

ENSURE that malfunction **rd07b** is **active** by viewing malfunction summary page.

Tools/Equipment/Procedures Needed:

Ensure clean copy of AOI-2 in all copies of Operating Instructions on the Simulator Floor.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The plant was operating at 100% power when shutdown rod C-5 dropped into the core due to a power cabinet card problem about 15 minutes ago.

AOI-2,Sect 3.3, was entered and performed through Step 16.

The problem has been repaired.

The reactor power was reduced to ≤ 75% per the instruction.

Unit SRO, Shift Manager, Reactor Engineering and STA have agreed on a retrieval rate of 64 steps per minute, and maximum power level of 100%.

You are the Operator At The Controls.

INITIATING CUES:

The Unit Supervisor directs you to realign the C-5 rod starting at AOI-2, Section 3.3, Step 17.

You are to notify the Unit Supervisor when the rod is realigned with the bank.

START TIME: _____

STEP 1: Obtain the correct procedure. STANDARD: A copy of AOI-2 Section 3.3 has been obtained. **EXAMINER'S CUE:** ***After the performer has demonstrated the method of obtaining the correct instruction, the evaluator can provide a copy of the instruction.*** COMMENTS:	___ SAT ___ UNSAT
STEP 2: **[STEP 17] PLACE** rod control in bank select position for affected bank. STANDARD: 1-RBSS is placed in the SBD position. **Step is critical to ensure proper bank is selected to align affected rod.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

NOTE: Computer Points for individual rods are C0009A through C0035A for shutdown banks and C0039A through C0076A for control banks. Average rod position points are U0001 through U0013. Rod step position points are U0049 through U0056. All points are in ICS "GROUP DISPLAY MENU" listed in "SPECIAL GROUPS" as "SG 1".	
STEP 3: **[STEP 18] RECORD** *the value of the following:* • Affected bank's step counter(s). • Computer step indication for rods in the affected bank. • P/A converter for bank (N/A for Shutdown Bank) [Aux Inst Room, el 708, 1-PNL-85-R42]. • Bank Overlap Counter (N/A for Shutdown Bank) [control rod drive room, el 782, panel 1-L-122]. STANDARD: Performer determines & logs the following: - Step counter readings for SD bank D - Computer step indication for SD bank D. COMMENTS:	___ SAT ___ UNSAT
NOTE Toggle switch up is disconnected. Toggle switch down is connected.	
STEP 4: **[STEP 19] DISCONNECT** all lift coils in affected bank, EXCEPT for dropped RCCA. STANDARD: Toggle switches in cabinet 1-XS-85-1 for rods E-13, N-11, & L-3 are placed in the disconnect position (up position). **Step is critical to assure proper rod is selected to be aligned and the remaining rods are not inadvertently positioned in the following steps.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

NOTE **The next step will cause a CONTROL ROD URGENT FAILURE alarm (except for Shutdown Banks C and D). Additional alarms associated with rod position may occur due to possible errors in the P/A converter and the computer (such as Lo-Lo Rod insertion alarm when zeroing the P-A converter). After the rods are aligned and the rod position is updated, then these alarms will reset.**	
STEP 5: **[STEP 20] INSERT** affected RCCA greater than 10 steps, and **CONTINUE** until NO RCCA motion is observed on RPI. STANDARD: 1-FLRM, Rod Motion Control IN-OUT stick, is used to insert rod > 10 steps on step counter. COMMENTS:	___ SAT ___ UNSAT
STEP 6: **[STEP 21] SET** affected step counter to "000". STANDARD: Shutdown Bank D Step counter is set at "0" COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 7: **[STEP 22] USE** Plant computer to set affected bank's position to zero. a. **SELECT** NSS AND BOP b. **SELECT** ROD BANK UPDATE c. **ENTER** 0 in affected bank position, **THEN PRESS** F3 to save. STANDARD: Performer uses the plant computer Rod Bank update function to set Shutdown Bank D Step Counter to "0". COMMENTS:	___ SAT ___ UNSAT
STEP 8: **[STEP 23] IF** dropped RCCA is in Control Bank, **THEN ADJUST** the P/A converter, USING Attachment 1 [Aux Inst Room, el 708, 1-PNL-85-R42]. STANDARD: Performer determines the rod is in shutdown bank, and proceeds to next step. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

NOTE **Computer constant K0015 contains the current monthly full out rod position for all rod banks.**	
STEP 9: **[STEP 24] DETERMINE** affected RCCA bank's required position. *****CUE:*** **IF NOB is referenced or Reactor Engineering contacted, state full out position is 228 steps.** STANDARD: Performer reviews data from Step 18 or from computer point K0015 or from NOB or calls Rx Engineering to determine full out position. COMMENTS:	___ SAT ___ UNSAT
STEP 10: **[STEP 25] OBTAIN** approval from the Plant Manager or designee prior to raising reactor power. *****CUE:*** **When Plant Manager or his designate is contacted, grant approval to raise power.** STANDARD: Performer calls Plant Manager or his designee for approval prior to raising Reactor Power. COMMENTS:	___ SAT ___ UNSAT

CAUTION Power level for performing recovery and maximum allowable power level during recovery will depend on initial power, location of dropped RCCA and duration of event.	
STEP 11: **[STEP 26] DO NOT CONTINUE** UNTIL the following agree on a retrieval rate, power level at which recovery will be performed and maximum power level: • Unit SRO. • Shift Manager. • Reactor Engineering. • STA. *****CUE:*** **If any one of the above is contacted, state that the Unit SRO, Shift Manager, Rx Engineering and STA are in agreement to retrieve the rod at normal manual speed of 64 steps/minute. Maximum power level is 100%. Recover from present power level.** STANDARD: Performer determines that the above personnel have agreed to retrieval rate and maximum power level per initial conditions. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

NOTE	**Step 27 RNO does not apply if alignment stopped due to turbine load reaching maximum established in Step 26. Step 28 will reduce turbine load and allow alignment to continue.**	
STEP 12:	**[STEP 27] ALIGN** RCCA to affected bank position: • **USE** rod control to position affected RCCA to bank position determined in Step 24. • **RAISE** turbine load to maintain T-avg and T-ref within 3°F.	___ SAT
STANDARD:	Performer attempts to realign the rod by placing 1-FLRM to the OUT position AND determines that the rod is NOT withdrawing.	___ UNSAT
*****CUE:***	**If requested then CRO will control turbine load to maintain T-avg and T-ref within 3° F.**	
COMMENTS:		
NOTE TO EVALUATOR: Following steps are the RNO for Step 27.		
STEP 13:	**[STEP 27 RNO] IF** RCCA can **NOT** be aligned, **THEN**: a. **RECONNECT** lift coils of affected bank.	**CRITICAL STEP**
STANDARD:	Toggle switches in cabinet 1-XS-85-1 for rods E-13, N-11, & L-3 are placed in the connected position (down position.). **This step is critical to reconnect lift coils to the operable rods.**	___ SAT ___ UNSAT
COMMENTS:		

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 14: **[RNO b.] RESET** CONTROL ROD URGENT FAILURE alarm [86-A] with 1-RCAR. STANDARD: 1-RCAR is placed to the RESET position. **NOTE TO EVALUATOR: This alarm is NOT LIT. Performer may or may not place switch in RESET.** COMMENTS:	___ SAT ___ UNSAT
STEP 15: **[RNO c.] SET** affected group step counters to original value. STANDARD: Shutdown Bank D Step counter is set at "228" steps COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 16: **[RNO d.] RESET** the computer to its original value USING the UPDATE function.	___ SAT
STANDARD: Performer uses the plant computer Rod Bank update function to set Shutdown Bank D Step Counter to "228".	___ UNSAT
NOTE TO EVALUATOR: This accomplished on the ROD BANK UPDATE screen on the plant computer, selecting shutdown bank D and entering 228, then pressing F3 to save or clicking on save on screen.	
COMMENTS:	

STEP 17: **[RNO e.] RESET** control bank P/A converter to its original value USING Attachment 1 if dropped RCCA in control bank. STANDARD: Performer determines the rod is in shutdown bank and proceeds to next sub-step. COMMENTS:	___ SAT ___ UNSAT
STEP 18: **[RNO f.] REFER TO** Tech Specs • 3.1.5, Rod Group Alignment Limits • 3.1.6, Shutdown Bank Insertion Limits • 3.1.7, Control Bank Insertion Limits *****CUE:*** **When performer open Tech Spec or asks Unit Supervisor or STA to check, State that the Unit Supervisor will refer to the Tech Spec.** STANDARD: Performer refers to or asks Unit Supervisor or STA to refer to Tech Spec. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 19: **[RNO g.] NOTIFY** Plant Management and Reactor Engineering. *****CUE:*** **Acknowledge report as Plant Management and as Reactor Engineering when contacted.** STANDARD: Performer notifies Plant Management and Reactor Engineering. COMMENTS:	___ SAT ___ UNSAT
STEP 20: **[RNO h.] RETURN TO** Instruction in effect. STANDARD: Performer determines transition from AOI-2 is required. *****CUE:*** **After performer determines transition is required, state that "WE'LL STOP HERE".** COMMENTS: **END OF TASK**	___ SAT ___ UNSAT

TIME STOP: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

APPLICANT CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The plant was operating at 100% power when shutdown rod C-5 dropped into the core due to a power cabinet card problem about 15 minutes ago.

AOI-2,Sect 3.3, was entered and performed through Step 16.

The problem has been repaired.

The reactor power was reduced to ≤ 75% per the instruction.

Unit SRO, Shift Manager, Reactor Engineering and STA have agreed on a retrieval rate of 64 steps per minute, and maximum power level of 100%.

You are the OAC.

INITIATING CUES:

The Unit Supervisor directs you to realign the C-5 rod starting at AOI-2, Section 3.3, Step 17.

You are to notify the Unit Supervisor when the rod is realigned with the bank.

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

B.1.g JPMRNRC/Sim

REMOVE SRM N132 FROM SERVICE PER AOI-4

APPLICANT _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task: REMOVE SRM N132 FROM SERVICE PER AOI-4

Alternate Path: N/A

Facility JPM #: NEW

K/A Rating(s): 2.1.30 [3.9/3.4] 015A4.01 [3.6*/3.6*]

Task Standard: Source Range Monitor N132 has been removed from service in accordance with AOI-4 Section 3.2.

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator __X__ In-Plant _____ Perform __X__ Simulate _____

References: AOI-4, NUCLEAR INSTRUMENTATION MALFUNCTIONS, Rev 20

Task Number:: RO-092-AOI-4-001 APPLICABLE FOR: RO/SRO

10CFR55.45: 4, 6, 12

Validation Time: ____ min. **Time Critical:** No

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Applicant: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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SIMULATOR OPERATOR INSTRUCTIONS:

1. Initialize to IC # **180**.

2. Acknowledge all alarms.

3. Freeze simulator until the performance indicates understanding of the task and time is allowed for control board familiarization.

4. NOTE: This JPM has been preshot in IC # **180** The following is the setup instructions if needed:

   Initialize to IC **69** (Conditions for Mode 4 during a heatup.)
   imf ni01b 0 Fails SRM N132 to zero.
   Place 1-NR-45 selected to SRM N132.
   Place Audible Count Rate selector to SRM N132.
   Acknowledge all alarms .
   FREEZE the simulator till the performer indicates an understanding of the task.

5. After performer indicates understanding of task, place simulator in run.

SIMULATOR OPERATOR INSTRUCTIONS:

NONE

Tools/Equipment/Procedures Needed:

Ensure clean copy of AOI-4 in all copies of Abnormal Operating Instructions on the Simulator Floor.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Plant conditions: BOL 235 °F, 360 psig

Unit Heat-up in progress

Source Range Monitor N132 has just failed.

You are the Operator at the Controls.

INITIATING CUES:

The Unit Supervisor has directed you to remove SRM N132 from service.

You are to notify the Unit Supervisor when the procedure has been completed.

START TIME: _____

STEP 1: Obtain the proper procedure. **EXAMINER'S CUE:** ***After the performer has demonstrated the method of obtaining the correct instruction, the evaluator can provide a copy of the instruction.*** STANDARD: A copy of AOI-4 has been obtained. COMMENTS:	___ SAT ___ UNSAT
Evaluator Note **The following steps are from AOI-4 Section 3.2**	
STEP 2: **[1] STOP** positive reactivity changes or core alterations. STANDARD: The performer determines that there are no positive reactivity additions in progress. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 3:	**[2] IF** both SRMs required and failed, THEN OPEN Rx trip breakers.	___ SAT
STANDARD:	Performer determines that only one channel is required operable at this time. (Mode 4 reactor trip breakers open). Performer may refer to Tech Specs.	___ UNSAT
COMMENTS:		

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 4: **[3] INIITIATE** performance of 1-SI-0-10, Shutdown Margin. **EXAMINER'S CUE: Role play as Unit Supervisor or STA, acknowledge request.** STANDARD: Performer requests the Unit Supervisor or STA to perform 1-SI-0-10. COMMENTS:	___ SAT ___ UNSAT
STEP 5: **[4] IF** SOURCE RANGE HI FLUX AT SHUTDOWN alarm occurs [81-B], **THEN**: a. **CHECK** alarm valid STANDARD: Performer determines that SOURCE RANGE HI FLUX AT SHUTDOWN is NOT in alarm by checking annunciator window 81-B NOT LIT. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

NOTE Placing the affected channel in bypass will cause either window 64A or 65A to alarm.	
STEP 6: **[5] PLACE** failed channel LEVEL TRIP switch to BYPASS [1-M-13] STANDARD: Performer places LEVEL TRIP switch is placed in Bypass for SRM N132. **Step is critical to bypass the reactor trips from this channel.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 7: **[6] PLACE** failed channel HIGH FLUX AT SHUTDOWN switch to BLOCK [1-M-13]. STANDARD: Performer places High Flux At Shutdown BLOCK switch to BLOCK position for SRM N132. **Step is critical to prevent spurious alarms in CNTMT that could be caused by the failed channel.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 8: **[7] ENSURE** 1-NR-92-145 recording an operable source range channel [1-M-4] STANDARD: Performer selects SRM N131 for recording on 1-NR-92-145. **Step is critical to ensure visible recording of source range count rate in the control room.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 9: **[8] IF** in MODE 3, 4, or 5, THEN: • CHECK audio count rate audible in control room. STANDARD: Performer determines that audible count rate in not audible in control room and proceeds to the RNO. COMMENTS:	___ SAT ___ UNSAT
NOTE TO EVALUATOR: Performer should return actions expected for step 8 after the following step is completed.	

STEP 10: **[8 RNO] PLACE** audible count rate channel CHANNEL SELECTOR switch to operable channel [1-M-13]. STANDARD: Performer places audible count rate channel selector switch to SRM N131. **Step is critical to ensure audible indication of source range count rate in the control room.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 11: **[STEP 8 continued]**
• REFER TO the following Tech Specs:
  • 3.3.1, Reactor Trip System Instrumentation.
  • 3.3.3, PAM Instruments,
  • 3.3.4, Remote Shutdown System.
 	
EXAMINER'S CUE: Role play as Unit Supervisor or STA, acknowledge request.
 	
STANDARD: Performer requests Unit Supervisor or STA to refer to Tech Specs.
 	
EXAMINER'S CUE: When the applicant states that he will review Tech Specs, inform him that Tech specs will be reviewed by STA or Unit Supervisor. Then State that this ends the JPM.
 	
COMMENTS:
 	
END OF TASK
	___ SAT
	
	___ UNSAT

TIME STOP: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

APPLICANT CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Plant conditions: BOL 235 °F, 360 psig

Unit Heat-up in progress

Source Range Monitor N132 has just failed.

You are the Operator at the Controls.

INITIATING CUES:

The Unit Supervisor has directed you to remove SRM N132 from service.

You are to notify the Unit Supervisor when the procedure has been completed.

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

B.2.a JPMA065/Local

RESPOND TO STEAM BINDING OF 1A-A AFW PUMP PER SOI-3.02

APPLICANT _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task: Respond To Steam Binding Of 1A-A AFW Pump Per SOI-3.02

Alternate Path: N/A

Facility JPM #: 3-OT-JPMA065 Rev 6

K/A Rating(s): 061K1.01 [4.1/4.1] 061K4.01 [4.1/4.2] 061K3.01 [4.4/4.6]
061K3.02 [4.2/4.4]

Task Standard: Performer verifies 1A-A AFW pump is steam bound, informs the RO/SRO, and vents pump casing.

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator ____ In-Plant __X___ Perform _____ Simulate __X___

References: SOI-3.02, Auxiliary Feedwater System, Rev 36.

Task Number:: AUO-003-SOI-3.02-013 APPLICABLE FOR: AUO/RO/SRO

10CFR55.45: 7, 8, 9, 12

Validation Time: 7 min. **Time Critical:** No

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Applicant: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

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Tools/Equipment/Procedures Needed:

Hard Hat, Safety Glasses, Hearing Protection, Gloves and Plant Approved Shoes.
SOI-3.02

SAFETY CONSIDERATIONS: Rotating equipment.

NOTE: **Start this JPM in the MCR.**

READ TO OPERATOR

DIRECTION TO TRAINEE:

I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEP(S) TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING/OPERATING CUES.
WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.
ENSURE THAT YOU INDICATE TO ME WHEN YOU FULLY UNDERSTAND YOUR TASK.

INITIAL CONDITIONS:

Unit 1 in service at 90% RTP, all systems aligned normally.

There are no known Steam Generator tube leaks at this time.

You are the Unit 1 Auxiliary Building AUO.

A maintenance employee reported to the MCR that 1A-A motor-driven AFW pump suction piping is extremely hot to the touch.

INITIATING CUES:

Another AUO will vent 1A-A motor driven discharge header piping per procedure.

The CRO directs you to vent 1A-A motor-driven AFW pump per procedure and to notify the CRO when the pump venting is complete.

START TIME: _____

STEP 1: Obtain a copy of the procedure. STANDARD: A copy of SOI-3.02 SEC 8.7 has been obtained. **EXAMINER'S CUE: After the performer has demonstrated the method of obtaining the correct instruction, the evaluator can provide a copy of the instruction.** COMMENTS:	___ SAT ___ UNSAT
CAUTION Radioactive steam may be present when venting AFW pumps. **NOTE** If venting due to vapor binding, it may also be necessary to vent AFW Pump Discharge Header to ensure system is returned to Standby condition. Unused portions of this section may be N/A'd.	
STEP 2: **[1] NOTIFY** RADCON of possible radiological hazards. *****CUE: Roll play as RADCON, using "repeat back".*** STANDARD: RADCON is notified that MD AFW pump 1A-A is going to be vented. COMMENTS:	___ SAT ___ UNSAT

EVALUATOR NOTE: Steps 3-6 are all part of the same instruction step.	
STEP 3: **[2]** **PERFORM** the following to vent AFW PUMP 1A-A [A3S/713]: **[a]** **NOTIFY** UO of intention to vent AFW PUMP1A-A. *****CUE: Roll play as the CRO or US, using "repeat back".*** STANDARD: MCR is notified that MD AFW pump 1A-A is about to be vented. COMMENTS:	___ SAT ___ UNSAT
NOTE TO EVALUATOR **The following step requires that a chicago drain plug be unlocked and removed, and may require use of a suitable hose to route drain water to floor drain.**	
STEP 4: **[b]** **OPEN** 1-VTV-3-931, AUX FEEDWATER PMP 1A-A CASING VENT. *****CUE: If performer states the need to place a hose on the vent line, roll play as the RO or SRO and instruct performer to do the initial venting without a hose.*** *****CUE: After drain plug removed and after the vent valve is open, state that a mixture of water and steam are coming from the vent.*** STANDARD: Drain plug is removed and 1-VTV-3B-931-A vent valve is opened by turning the hand wheel CCW. **Step is critical to vent casing of steam and water.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 5: **[c] WHEN** solid stream of water exists, **THEN CLOSE** 1-VTV-3-931, AUX FEEEDWATER PMP 1A-A CASING VENT. *****CUE:*** ***Notify the performer that 5 minutes have passed and a steady stream of water is coming from the valve.*** *****CUE:*** ***After valve has been simulated closed inform the performer that no water is coming from the valve and the hand wheel is snug.*** STANDARD: 1-VTV-3B-931-A vent valve is closed by turning the hand wheel CW until motion stops. Performer may re-install drain plug at this time or request guidance from control room concerning drain plug. COMMENTS:	___ SAT ___ UNSAT
STEP 6: **[d] NOTIFY** UO that AFW PUMP 1A-A vented. *****CUE:*** ***When notified, acknowledge the report using repeat back.*** STANDARD: The MCR is notified that the 1A-A AFW Pump casing has been vented. COMMENTS: **END OF TASK**	___ SAT ___ UNSAT

TIME STOP: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

CANDIDATE CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEP(S) TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING/OPERATING CUES.
WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.
ENSURE THAT YOU INDICATE TO ME WHEN YOU FULLY UNDERSTAND YOUR TASK.

INITIAL CONDITIONS:

Unit 1 in service at 90% RTP, all systems aligned normally.

There are no known Steam Generator tube leaks at this time.

You are the Unit 1 Auxiliary Building AUO.

A maintenance employee reported to the MCR that 1A-A motor-driven AFW pump suction piping is extremely hot to the touch.

INITIATING CUES:

Another AUO will vent 1A-A motor driven discharge header piping per procedure.

The CRO directs you to vent 1A-A motor-driven AFW pump per procedure and to notify the CRO when the pump venting is complete.

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

B.2.b JPMA048/Local

ROLLING 1B-B DIESEL GENERATOR FOR WATER IN CLYINDERS PER SOI-82.02

CANDIDATE _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task: Rolling 1B-B Diesel Generator For Water In Cylinders Per SOI-82.02

Alternate Path: N/A

Facility JPM #: 3-OT-JPMA048 Rev 0

K/A Rating(s): 064A4.01 [4.0/4.3] 064A2.15 [2.6/3.1] 2.1.30 [3.9/3.4]

Task Standard: DG 1B-B is successfully rolled one complete revolution and is left ready to be started.

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator ____ In-Plant __X__ Perform _____ Simulate __X__

References: SOI-82.02 "Diesel Generator 1B-B", Rev.41

Task Number:: AUO-082-SOI-82.1-006 APPLICABLE FOR: AUO/RO/SRO
AUO-082-SOI-82.1-003

10CFR55.45: 3, 4, 8

Validation Time: 20 min. **Time Critical:** No

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Candidate: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

_____

_____

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Tools/Equipment/Procedures Needed:

Hard Hat, Safety Glasses, Hearing Protection, and Plant Approved Shoes.
SOI-82.02
Keys 2402 and cylinder plug wrench from US desk.
Safety considerations: CO2 Protected area; Potential for high noise if DG auto starts.

NOTE: Start this JPM in the MCR.

READ TO OPERATOR

DIRECTION TO TRAINEE:

I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEP(S) TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING/OPERATING CUES.
WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.
ENSURE THAT YOU INDICATE TO ME WHEN YOU FULLY UNDERSTAND YOUR TASK.

INITIAL CONDITIONS:

Unit 1 is in Mode 1 with all equipment operable.

Preplanned surveillance testing requires rolling of DG 1B-B.

The Unit SRO has approved the DG rolling.

DG 1B-B is presently in standby alignment.

You are an AUO on shift.

INITIATING CUES:

The Control Room Operator directs you to roll 1B-B DG one complete revolution to check for water per SOI-82.02.

Notify the Main Control Room when the task is complete.

START TIME: _____

STEP 1: Obtain a copy of the instruction. **EXAMINER'S CUE: After the performer has identified correct instruction, the evaluator can provide a copy of the instruction.** STANDARD: A copy of SOI-82.02 Section 8.3 has been obtained. COMMENTS:	___ SAT ___ UNSAT
STEP 2: **[Step 1] PLACE** 1-HS-82-48, DG MODE SELECTOR SWITCH, in (UNIT), PULL FOR LOCAL TRANSFER [0-M-26]. *****CUE: When contacted, repeat back, then report that 1-HS-82-18 has been placed in PULL FOR LOCAL TRANSFER*** STANDARD: Performer contacts MCR to have 1-HS-82-48, DG MODE SELECTOR, placed in PULL FOR LOCAL TRANSFER. **This step is critical to enable local control of DG.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 3: **[STEP 2] PRESS** 1-HS-82-52, TRIP TO LOCAL GEN 1B-B, to trip LRX1B to LOCAL. [1-ARB-82-B/3, Diesel Generator 1B-B Relay Board] *****CUE:*** ***If asked, state that an audible snap of a relay was heard when hand switch was depressed.*** STANDARD: 1-HS-82-52, TRIP TO LOCAL GEN 1B-B, is pressed. COMMENTS:	___ SAT ___ UNSAT
STEP 4: **[STEP 3] VERIFY** 1-RLY-82-LRX1B, DG 1B-B LOCAL/REMOTE CONTROL LOCKOUT, in LOCAL. [1-ARB-82-B/1, Diesel Generator 1B-B Relay Board] *****CUE:*** **When LRX1B is checked, indicate that it is in LOCAL** STANDARD: Performer verifies that 1-RLY-82-LRX1B, DG 1B-B LOCAL/REMOTE CONTROL LOCKOUT, in LOCAL. COMMENTS:	___ SAT ___ UNSAT

STEP 5:	**[STEP 4] PLACE** 1-HS-82-53, MAINT-AUTO-SWITCH GEN 1B-B, in MAINT [1-PNL-82-B/2, Diesel Engine 1B1/1B2 Control Panel].	**CRITICAL STEP**
STANDARD:	1-HS-82-53, MAINT-AUTO-SWITCH GEN 1B-B, is placed in MAINT.	___ SAT
	This step is critical to block auto starts of the DG.	___ UNSAT
COMMENTS:		

STEP 6: **[STEP 5] OPEN** 1-SW-82-B/1, DG 1B-B DISCONNECT SWITCH, [Local Switchgear Pnl, 1B-B DG Rm]

STANDARD: 1-SW-82-B/1, DG 1B-B DISCONNECT SWITCH, is opened.

This step is critical to ensure DG does not start.

COMMENTS:

CRITICAL STEP

___ SAT

___ UNSAT

NOTE The following step will cause annunciator window 202C to alarm.

STEP 7: **[STEP 6] PERFORM** the following:

CRITICAL STEP

NOMENCLATURE	LOCATION	POSITION	UNID
DG ENG 1B1 AIR START MOTOR SUPPLY ISOL	DGB	CLOSED	1-ISV-82-520B1
DG ENG 1B1 AIR START MOTOR SUPPLY ISOL	DGB	CLOSED	1-ISV-82-528B1
DG ENG 1B2 AIR START MOTOR SUPPLY ISOL	DGB	CLOSED	1-ISV-82-554B2
DG ENG 1B2 AIR START MOTOR SUPPLY ISOL	DGB	CLOSED	1-ISV-82-562B2

STANDARD: The above listed valves are closed by turning their handles clockwise (90 deg. to pipe).

This step is critical to isolate air to the air start motors for the DG.

COMMENTS:

___ SAT

___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

NOTE Maintenance may assist with Steps **[7]** thru **[11]**, if available, BUT in ALL cases, these steps must be performed and signed off.	
STEP 8: **[STEP 7] OPEN** all cylinder test plugs (32) on both engines two turns (1-16 each engine): STANDARD: Performer demonstrates how to open one cylinder plug two *turns and identifies that the 31 remaining plugs would be* opened by rotating the plugs counter clockwise. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 9: **[STEP 8] INSTALL** jacking device, and **ROTATE** engine through one revolution manually. STANDARD: The use of the jacking device is simulated to rotate the DG one revolution. COMMENTS:	___ SAT ___ UNSAT
NOTE If excessive amounts of water are ejected, a gasket leak or crack has developed and repairs should be initiated.	

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 10: **[STEP 9] IF** water discharges from the test plug holes, **THEN DISCONTINUE** startup, **AND NOTIFY** SM. *****CUE:*** ***When checked State that NO water was discharged from the cylinders.*** STANDARD: Performer determines that NO water is discharged. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 11: **[STEP 10] REMOVE** jacking device. STANDARD: The jacking device is removed. **This step is critical to enable the DG to be started.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 12: **[STEP 11] CLOSE** East side cylinder plugs (16) snug tight, using a cylinder test valve wrench or equivalent. STANDARD: Performer demonstrates the ability to obtain a proper wrench and how to snug tighten one East side cylinder plug and *identifies that the 15 remaining plugs would be snug tightened* by turning clockwise. **This step is critical to enable the DG to be started.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 13:	**[STEP 12] CLOSE** West side cylinder plugs (16) snug tight, using a cylinder test valve wrench or equivalent.	**CRITICAL STEP**
STANDARD:	Performer demonstrates the ability to obtain a proper wrench and how to snug tighten one West side cylinder plug and identifies that the 15 remaining plugs would be snug tightened by turning clockwise.	___ SAT
	This step is critical to enable the DG to be started.	___ UNSAT
COMMENTS:		

NOTE The following step will cause annunciator window 202C to alarm.

STEP 14: **[STEP 13] PERFORM** the following:

CRITICAL STEP

NOMENCLATURE	LOCATION	POSITION	UNID
DG ENG 1B1 AIR START MOTOR SUPPLY ISOL	DGB	OPEN	1-ISV-82-520B1
DG ENG 1B1 AIR START MOTOR SUPPLY ISOL	DGB	OPEN	1-ISV-82-528B1
DG ENG 1B2 AIR START MOTOR SUPPLY ISOL	DGB	OPEN	1-ISV-82-554B2
DG ENG 1B2 AIR START MOTOR SUPPLY ISOL	DGB	OPEN	1-ISV-82-562B2

STANDARD: The above listed valves are opened by turning their handles counter clockwise.

This step is critical to line air to the air start motors for the DG.

___ SAT

___ UNSAT

COMMENTS:

STEP 15: **[STEP 14] CLOSE** 1-SW-82-B/1, DG 1B-B DISCONNECT SWITCH, [Local Switchgear Pnl, 1B-B DG Rm]

CRITICAL STEP

STANDARD: 1-SW-82-B/1, DG 1B-B DISCONNECT SWITCH, is closed.

This step is critical to restore DG start capability.

___ SAT

___ UNSAT

COMMENTS:

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

STEP 16: **[STEP 15] PLACE** 1-HS-82-53, MAINT-AUTO-SWITCH GEN 1B-B, in AUTO. [1-PNL-82-B/2, Diesel Engine 1B1/1B2 Control Panel]. STANDARD: 1-HS-82-53, MAINT-AUTO-SWITCH GEN 1B-B, is placed in AUTO. **This step is critical to enable DG operation.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
NOTE If returning to Section 8.1.1 upon completion of this section, then Steps **[16]** and **[17]** are N/A.	
STEP 17: **[STEP 16] PLACE** 1-RLY-82-LRX1A, DG 1A-A LOCAL/REMOTE CONTROL LOCKOUT, in REMOTE. [1-ARB-82-A/1 Diesel Generator 1A-A Relay Board] STANDARD: 1-RLY-82-LRX1B, DG 1B-B LOCAL/REMOTE CONTROL LOCKOUT, is placed in REMOTE .(Vertical Position) ***This step is critical to allow return to standby of DG.*** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 18: **[STEP 17] PLACE** 1-HS-82-18, DG MODE SELECTOR SWITCH, in UNIT (PUSHED IN position)[0-M-26] ***CUE:* **When contacted, repeat back, then report that 1-HS-82-18 has been placed in UNIT.** STANDARD: Performer contacts the MCR to place 1-HS-82-18, DG MODE SELECTOR SWITCH, in UNIT. **This step is critical to allow return to standby of DG.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 19: **[STEP 18] ENSURE** 0-SI-82-9 has been updated (Diesel Generator out of service log). ***CUE:* **When contacted, repeat back, then report 0-SI-82-9 has been updated.** STANDARD: Performer contacts the MCR to update 0-SI-82-9 (Diesel Generator Out Of Service Log). COMMENTS:	___ SAT ___ UNSAT

STEP 20: Notify Main Control Room that 1B-B DG has been rolled to check for water in cylinders. ***CUE:* **When notified, acknowledge the report using repeat back, then terminate the JPM by telling the performer, "We'll stop here".** STANDARD: Main Control Room is notified that the !B-B DG has been rolled. COMMENTS: **END OF TASK**	___ SAT ___ UNSAT

TIME STOP: _____

Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.

CANDIDATE CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEP(S) TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING/OPERATING CUES.
WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.
ENSURE THAT YOU INDICATE TO ME WHEN YOU FULLY UNDERSTAND YOUR TASK.

INITIAL CONDITIONS:

Unit 1 is in Mode 1 with all equipment operable.

Preplanned surveillance testing requires rolling of DG 1B-B.

The Unit SRO has approved the DG rolling.

DG 1B-B is presently in standby alignment.

You are an AUO on shift.

INITIATING CUES:

The Control Room Operator directs you to roll 1B-B DG one complete revolution to check for water per SOI-82.02.

Notify the Main Control Room when the task is complete.

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

B.2.c JPMA001c/Local

Perform Local Restart Of Control And Service Air Compressors Per AOI-10

CANDIDATE _____

EXAMINER _____

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task: Perform local restart of control and service air compressors per AOI-10.

Alternate Path: Compressor "A" has high discharge air temperature and high oil temperature indication lights. Compressor "A" fails to auto load.

Facility JPM #: 3-OT-JPMA001C Rev 2

K/A Rating(s): 078-A3.01 [3.1/3.2] 065-AK3.08 [3.7/3.9] 065-AA2.08 [2.9/3.3]
2.1.20 [4.2/4.2] 2.1.30 [3.1/3.2]

Task Standard: "A" and "B" Air Compressors have been aligned and started per AOI-10. Control Air (Non-Essential) pressure has been re-established.

Preferred Evaluation Location: **Preferred Evaluation Method:**

Simulator ____ In-Plant __X__ Perform _____ Simulate __X__

References: AOI-10 "Loss of Control Air" Rev. 25

Task Number:: AUO-032-AOI-010-002 APPLICABLE FOR: AUO/RO/SRO
RO-032-AOI-10-002

10CFR55.45: 3, 4, 6, 8

Validation Time: 9 min. **Time Critical:** No

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Candidate: _____ _____ Time Start: _____
NAME SSN Time Finish: _____

Performance Rating: SAT ____ UNSAT ____ Performance Time ___

Examiner: _____ _____/_____
NAME SIGNATURE DATE

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COMMENTS

_____

_____

_____

_____

_____

_____

Tools/Equipment/Procedures Needed:

Hard Hat, Safety Glasses, Hearing Protection, Gloves and Plant Approved Shoes.
AOI-10 Attachment 1
High Noise Area. Energized rotating equipment that can auto start.

NOTE: **Start this JPM in the MCR.**

EVALUATOR NOTE: **Provide a copy of AOI-10 Attachment 1 to performer with candidate's cue sheet.**

READ TO OPERATOR

DIRECTION TO TRAINEE:

I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEP(S) TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING/OPERATING CUES.
WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.
ENSURE THAT YOU INDICATE TO ME WHEN YOU FULLY UNDERSTAND YOUR TASK.

INITIAL CONDITIONS:

A Station Blackout has occurred resulting in a reactor trip.

The DGs have started and are feeding the SD Bds.

The Control and Service Air compressors were aligned normal with "C" air compressor in the lead prior to the Blackout/trip.

A loss of Non-essential and Service air has occurred (Air pressure is at 75 psig decreasing)

Essential Air is being supplied by the Aux. Air compressors.

The 480V Aux Bldg Common Bd does not have voltage available on its normal or alt supply.

Local control power is available to the air compressors (no alarm in MCR).

You are a support AUO on shift

INITIATING CUES:

The MCR operator has dispatched you with a copy of Attachment 1 of AOI-10 with instructions to perform steps 2 through 10.

Notify the MCR operator when the task is complete.

START TIME: _____

STEP 1: Obtain a copy of the procedure. **EXAMINER'S CUE: Provide copy of AOI-10 Attachment 1 to performer.** STANDARD: A copy of AOI-10, Attachment 1 has been obtained. COMMENTS:	___ SAT ___ UNSAT
STEP 2: **[Step 2]** Locally **CHECK** 0-PCV-33-4, SERVICE AIR SUPPLY ISOLATION, CLOSED [T7M/708]. *****CUE:*** ***When the valve is checked, state that green light ON, Red light OFF, Stem down, indication at C*** STANDARD: 0-PCV-33-4 has been checked in the closed position by either the green local indicating light or the stem down on the valve. COMMENTS:	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 3: **[STEP 3] CHECK** local control station alarm DARK [Panel 0-L-240, T7M/708] *****CUE:*** ***When checked, state that Compressor "A" has a high discharge air temp and high oil temp light illuminated.*** STANDARD: Local Control Station (Panel 0-L-240) Alarms have been checked and Operator proceeds to RNO column due to high discharge air temp and high oil temp on "A" compressor. **Step is critical because "A" compressor would have trip logic still set with switch not reset locally.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 4: **[STEP 3 RNO a] IF** local control station alarm LIT, **THEN PERFORM** the following for each air compressor in alarm: **a. RESET** high air temp at each compressor (0-TS-32-41, -36,-31). *****CUE:*** ***When checked, and after candidate indicates how to depress pushbutton for 0-TS-32-41 state it is as you see it (reset).*** STANDARD: The High Air Temp reset push button, 0-TS-32-41, (on west side of "A" air compressor) has been depressed. **Step is critical because "A" compressor cannot be started with the alarm switch NOT reset.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 5:	**[STEP 3 RNO b] RESET** high oil temp switches at each air compressor (0-TS-32-40, -35, -30). *****CUE:*** ***When checked, and after candidate indicates how to depress pushbutton for 0-TS-32-40 state it is as you see it reset.*** STANDARD: The High oil Temp reset push button, 0-TS-32-40, (on east side of "A" air compressor) has been depressed. **Step is critical because "A" compressor cannot be started with the alarm switch NOT reset.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 6:	**[STEP 3 RNO c] RESET** Common Alarm using 0-HS-32-25B, COMPRESSOR A,B,C RESET [0-L-240, yellow PB]. STANDARD: 0-HS-32-25B has been pushed. **Step is critical because "A" compressor cannot be started without using pushbutton to reset trip logic.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 7: **[STEP 3 RNO d] CHECK** common and all compressor local alarms DARK. *****CUE:*** ***After high air temp and high oil temp. reset push buttons at compressor "A", and 0-HS-32-25B has been pushed , inform performer that all alarms lights on panel are dark.*** STANDARD: All alarms on panel have been checked dark. COMMENTS:	___ SAT ___ UNSAT
STEP 8: **[STEP 4] PLACE** the following C&SS Air Compressors to HAND [0-L-240]: • A, 0-HS-32-25D. • B, 0-HS-32-26A. *****CUE:*** ***Both handswitches point to HAND.*** STANDARD: 0-HS-32-25D for "A" Compressor and 0-HS-32-26A for "B" Compressor have been placed to the HAND position. **Step is critical because the hand switches enable the respective local start pushbuttons.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 9: **[STEP 5] PLACE** 0-HS-32-25A , STATION AIR COMPRESSOR SEQUENCE CONTROL, to Position 1. *****CUE:*** ***State that Sequence Selector indicates position 3 before operation, and then state position 1 after operation.*** STANDARD: 0-HS-32-25A, Station Air Compressor Sequence Selector Control, has been placed in Position 1. COMMENTS:	___ SAT ___ UNSAT
STEP 10: **[STEP 6] START** Air Compressor A by pushing 0-HS-32-25E. *****CUE:*** ***If JPM Steps 4, 5, 6, and 8 were SAT, then when PB is depressed, if asked, state that a air compressor start was heard. If JPM Steps 4, 5, 6, or 8 were UNSAT, if asked, state that compressor start was not heard.*** STANDARD: 0-HS-32-25E manual start push button is depressed. **Step is critical to start air compressor.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 11: **[STEP 7] CHECK** Compressor A loads automatically. *****CUE:*** ***When checked, state that the air compressor sound indicates that it has NOT loaded, state that air pressure is NOT rising (several local gauges), or, if both solenoids are checked to be magnetized, state that they are de-energized.*** STANDARD: It has been determined that air compressor "A" is not loaded. Operator proceeds to RNO column due to failure of "A" compressor to load. COMMENTS:	___ SAT ___ UNSAT
STEP 12: **[STEP 7 RNO] IF** Compressor A does not Auto load, **THEN PLACE** 0-HS-32-43A and -43B to ON (Local 0-JB-291-226). *****CUE:*** ***After hand switches have been placed to the ON position and when checked, state that the air compressor sound indicates that it has not loaded, the air pressure is dropping, or, if both solenoids are checked to be magnetized, state that they are de-energized.*** STANDARD: 0-HS-32-43A and 0-HS-32-43B have been placed to the ON positions and it has been determined that air compressor "A" has NOT loaded. COMMENTS:	___ SAT ___ UNSAT

STEP 13: **[STEP 7 RNO] IF** Compressor A does not load from local panel, **THEN:** **a. CLOSE** 0-ISV-32-578, STATION AIR COMPR A UNLOADING HDR ISOL. **b. VENT** 0-TV-32-579, STATION AIR COMPR A UNLOADING HDR TEST. *****CUE:*** ***After Valve 0-ISV-32-578 has been located and closed state that valve handwheel rotated clockwise until snug and valve stem moved into valve body.*** ***After Valve 0-TV-32-579 has been located and opened state that valve handwheel rotated counterclockwise until snug (state that air was heard venting from end of valve if asked).*** ***IF asked and when checked state that compressor sound indicated it has loaded and when checked, the air compressor sound indicates that it has loaded, the air pressure is rising.*** STANDARD: Valve 0-ISV-32-578 has been closed by operating the valve handwheel clockwise. Valve 0-TV-32-579 has been opened to vent air by operating valve handwheel counter clockwise. It has been determined that air compressor "A" is has loaded. **Step is critical to bleed air to force compressor to load.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 14: **[STEP 8] START** Compressor B by pushing 0-HS-32-26B. *****CUE:*** ***If JPM Step 8 was SAT, then when PB is depressed, if asked state that a air compressor start was heard. If JPM Steps 8 were UNSAT, if asked, state that compressor start was not heard.*** STANDARD: 0-HS-32-26B manual start push button is depressed. **Step is critical to start air compressor.** COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

STEP 15: **[STEP 9] CHECK** Compressor B loads automatically. *****CUE:*** ***When checked, state that the air compressor sound indicates that it has loaded or, if both solenoids are checked to be magnetized, state that they are energized.*** STANDARD: It has been determined that air compressor "B" is fully loaded. COMMENTS:	___ SAT ___ UNSAT
STEP 16: **[STEP 10] MONITOR** Air Compressor operation. • Oil Pressure 25-30 psig on A, B, and C. • Cooling water flow. • Compressors auto loading. *****CUE:*** ***After each parameter is checked, inform the Performer that each compressor has 28 psig oil pressure, the cooling water flow is normal and the compressors are fully loaded.*** STANDARD: Oil pressure is checked on both compressors to be 25-30 psig. (A. 0-PI-32-40 & B. 0-PI-32-35) Cooling water is verified by observing discharge drains. Compressors are checked for full load operation. Operator determines that Compressor A will have to be manually loaded and unloaded to maintain greater then 80 psig. **NOTE: C Air Compressor is shutdown due to loss of power** **EXAMINER'S CUE: When operator determines that Compressor "A" will have to be manually loaded/unloaded then terminate JPM by stating "We'll stop here".** COMMENTS: **END OF TASK**	___ SAT ___ UNSAT

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

TIME STOP: _____

*****Italicized Cues Are To Be Used Only If JPM Performance Is Being Simulated.***

CANDIDATE CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

DIRECTION TO TRAINEE:

I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEP(S) TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING/OPERATING CUES.
WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.
ENSURE THAT YOU INDICATE TO ME WHEN YOU FULLY UNDERSTAND YOUR TASK.

INITIAL CONDITIONS:

A Station Blackout has occurred resulting in a reactor trip.

The DGs have started and are feeding the SD Bds.

The Control and Service Air compressors were aligned normal with "C" air compressor in the lead prior to the Blackout/trip.

A loss of Non-essential and Service air has occurred (Air pressure is at 75 psig decreasing)

Essential Air is being supplied by the Aux. Air compressors.

The 480V Aux Bldg Common Bd does not have voltage available on its normal or alt supply.

Local control power is available to the air compressors (no alarm in MCR).

You are a support AUO on shift

INITIATING CUES:

The MCR operator has dispatched you with a copy of Attachment 1 of AOI-10 with instructions to perform steps 2 through 10.

Notify the MCR operator when the task is complete.