Facility: Ginna | Task No.: 004-037-01-01

Task/JPM Title: Alternate Dilution of the RCS (R/B occurs during dilution) | JPM No.: 2008 NRC JPM A

K/A Reference: 004 A2.16 3.2 / 3.6

Examinee: | NRC Examiner:

Facility Evaluator: | Date:

Method of testing:

Simulated Performance: _____ | Actual Performance: X

Classroom _____ Simulator X Plant _____

Applicability: RO/SRO

SUBMITTED BY: Ted Coe (Developer) DATE: 6/30/08

REVIEWED BY: Art Vest (Training Technical Reviewer) DATE: 6/30/08

REVIEWED BY: Don Dettman (Operations Technical Reviewer) DATE: 6/30/08

APPROVED BY: John Brown (Training Management) DATE: 6/30/08

Task Standard:	Alternate dilution is secured and all critical tasks evaluated as satisfactory.
Required Materials:	None
General References:	S-3.1, Boron Concentration Control, Rev. 02900 S-12.4, RCS Leakage Surveillance Record Instructions, Rev.54
Handouts:	S-3.1, Boron Concentration Control, Rev. 02900 S-12.4, RCS Leakage Surveillance Record Instructions, Rev.54, Attachment RCS Leakage Surveillance Record
Time Critical Task:	NO
Validation Time:	15 minutes
Alternate Path:	Yes
Instructor Notes:	Have the Reactivity Binder cleaned and a copy of S-12.4, Attachment RCS Leakage Surveillance Record available for examinee.

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are the HCO.
- I will be the CRS of the CO if you need one.
- The plant is at 98.5% power in a normal 50/50 at power lineup.
- Attachment 1, Makeup Determinations of S-3.1, Boron Concentration Control has been completed.

Initiating Cue: Perform an alternate dilution of 100 gallons of water at 20 gpm to maintain Tave at Tref.

SIMULATOR SETUP

For the 2008 ILT NRC Exam load I/C # 171

or

- Any 100% IC (IC-19).
- The plant in a normal 100% power lineup.
- In a normal 50/50 electric lineup.
- RMW PUMP 1B in Pull-Stop.
- Ensure Tave is slightly below Tref.
- Insert NIS07A, PR Channel Failure CH: N-41 failed low on Manual Trigger 1.
- Control Rods in auto.
- Set RMW to BA Blender flow control valve, HCV-111 controller to 40 gpm.

START TIME: _____

√ = CRITICAL STEP

S-3.1, Att. 4, step 1.0

Performance Step: 1 ENSURE Attachment 1, Makeup Determinations, is complete.

Standard: Given in the initial cue.

Comment:

S-3.1, Att. 4, step 2.0 and 2.1

Performance Step: 2
2.0 The board operator SHALL inform the CRS (SM in the CRSs absence) of the intent to change core reactivity.
2.1 The CRS (SM in the CRSs absence) SHALL acknowledge the reactivity manipulation and provide input and oversight.

Standard: Informs CRS of 100 gallons of water addition. (or something to that effect)

CUE: **Acknowledge report.**

Comment:

S-3.1, Att. 4, step 3.0

√ **Performance Step: 3** PLACE RMW MODE SELECTOR control switch to ALT DIL position.

Standard: RMW MODE SELECTOR in ALT DIL.

Comment:

S-3.1, Att. 4, step 4.0

Performance Step: 4 SET RMW TO BA BLENDER FLOW CONTROL VLV, HCV 111, controller to the desired flow rate.

Standard: RMW TO BA BLENDER FLOW CONTROL VLV, HCV 111, controller, set to 20 gpm.

Comment:

S-3.1, Att. 4, step 5.0

√ **Performance Step: 5** SET the RMW COUNTER, YIC-111, to the quantity determined in Attachment 1, Step 2.1.

Standard: RMW COUNTER, YIC-111 set to 10 0 gallons.

Comment:

S-3.1, Att. 4, step 6.0

√ **Performance Step: 6** PLACE RMW CONTROL control switch to START position.

Standard: RMW CONTROL switch to START and released.
Red light on, Green light off.

Comment:

S-3.1, Att. 4, step 7.0

Performance Step: 7 VERIFY the following:

- RMW PUMP 1A OR 1B STARTS.
- REACTOR MAKEUP TO VCT, AOV 110C, opens.
- RMW TO BA BLENDER FLOW CONTROL VLV, HCV 111, valve throttles open to the preset flow position.
- REACTOR MAKEUP TO CHG PUMP, AOV-110B, opens.

Standard:

- RMW PUMP 1A STARTS. Red light on, Green light off.
- AOV 110C, opens. Red light on, Green light off.
- HCV 111, valve throttles open to the preset flow position.
- AOV-110B, opens. Red light on, Green light off.

SIM OPERATOR: As soon as the student has completed verifying proper lineup insert Manual Trigger 1.

Comment:

(Start Alternate Path)

√ **Performance Step: 8** PLACE RMW CONTROL switch to STOP position.

Standard:
- The examinee determines a Rod Block exists and per the note prior to step 6.0 immediately secures the dilution operation.
- RMW CONTROL switch in STOP.
- Red light off, Green light on.

CUE: Acknowledge reports.

CUE: HCO continue with S-3.1 Attachment 4, the CO will address the other issues.

Comment:

S-3.1, Att. 4, step 8.0 (End Alternate Path)

√ **Performance Step: 9** WHEN dilution is complete, THEN PERFORM the following:

8.1 PLACE RMW MODE SELECTOR control switch to AUTO position.
8.2 PLACE RMW CONTROL switch to START position, and verify RMW control red light illuminated.
8.3 SET RMW TO BA BLENDER FLOW CONTROL VLV, HCV 111, controller to the normal flow setpoint of 40 GPM.

Standard:

8.1 RMW MODE SELECTOR control switch to AUTO position.
8.2 RMW CONTROL switch in START position, Red light on, Green light off.
8.3 RMW TO BA BLENDER FLOW CONTROL VLV, HCV 111, controller at 40 GPM.

Comment:

S-3.1, Att. 4, step 9.0

Performance Step: 10 RECORD the amount of reactor makeup water added on S-12.4, RCS Leakage Surveillance Record Instructions, Attachment RCS Leakage Surveillance Record.

Standard: Amount added in gallons of water recorded on S-12.4, RCS Leakage Surveillance Record Instructions, Attachment RCS Leakage Surveillance Record.

Comment:

S-3.1, Att. 4, step 10.0

Performance Step: 11 The board operator SHALL inform the CRS (SM in the CRSs absence) the reactivity manipulation is complete.

Standard: CRS notified that reactivity manipulation is complete.

CUE: Acknowledge report.

Comment:

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM A

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are the HCO.
- I will be the CRS of the CO if you need one.
- The plant is at 98.5% power in a normal 50/50 at power lineup.
- Attachment 1, Makeup Determinations of S-3.1, Boron Concentration Control has been completed.

Initiating Cue: Perform an alternate dilution of 100 gallons of water at 20 gpm to maintain Tave at Tref.

Facility:	Ginna	Task No.:	006-018-05-01A
Task/JPM Title:	Transfer ECCS to Cold Leg Recirculation (Alt. Path)	JPM No.:	2008 NRC JPM B
K/A Reference:	EPE 011 EA1.11 4.2 / 4.2		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: _____ Actual Performance: X

Classroom _____ Simulator X Plant _____

Applicability: RO/SRO

SUBMITTED BY: Ted Coe DATE: 6/30/08
Developer

REVIEWED BY: Art Vest DATE: 6/30/08
Training Technical Reviewer

REVIEWED BY: Don Dettman DATE: 6/30/08
Operations Technical Reviewer

APPROVED BY: John Brown DATE: 6/30/08
Training Management

Task Standard:	One RHR pump running, taking suction from the Containment "B" sump and all critical tasks evaluated as satisfactory.
Required Materials:	DC power panel key.
General References:	ES-1.3, TRANSFER TO COLD LEG RECIRCULATION, Rev. 04200
Handouts:	ES-1.3, TRANSFER TO COLD LEG RECIRCULATION, Rev. 04200
Time Critical Task:	NO
Validation Time:	15 minutes
Alternate Path:	YES
Instructor Notes:	None

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are the HCO.
- Reactor trip with SI occurred.
- The has CRS initiated loss of coolant actions
- RWST level is at 28% and trending down slowly.
- The Control Room crew is currently at Step 22 of E-1.

Initiating Cue: The CRS directs you to transfer to Cold Leg Recirculation per ES-1.3, Transfer to Cold Leg Recirculation.

SIMULATOR SETUP

For the 2008 ILT NRC Exam load I/C # 172 and Freeze the simulator until the operator is ready to start then go to run.

or

- Any at power IC.
- Max break LOCA.
- Insert MALF RCS03B.
- Ensure (4) SW pumps running.
- Complete E-1 up to Step 19 with RWST Level > 28% (approx. 29%).
- Ensure both CS Pumps are running.
- Ensure A CCW Pump is running.
- Ensure B CCW Pump is secured.
- Insert trip CLG02B for B CCW Pump.
- Ensure MOV-738A and 738B are closed.
- Freeze simulator until operator ready to start then go to run.

START TIME: _____

√ = CRITICAL STEP

ES-1.3, step 1

Performance Step: 1 Verify RWST level - GREATER THAN 15%

Standard: Monitors RWST Level. IF sump recirculation NOT in progress, THEN pull-stop all pumps taking suction from RWST, EXCEPT one SI pump AND go to ECA-1.1, LOSS OF EMERGENCY COOLANT RECIRCULATION, Step 1.

Comment:

ES-1.3, step 2

Performance Step: 2 Verify CNMT Sump B Level – AT LEAST 113 INCHES

Standard: Locates and identifies CNMT Sump B Level is at least 113 INCHES.
(2) 113 inches Red indicator lights lit on CNMT Sump Level Indicator.

Comment:

ES-1.3, step 3

Performance Step: 3 Reset SI

Standard: Depresses SI reset P/B.

Comment:

ES-1.3, step 4.a

Performance Step: 4 Check IF Unnecessary Pumps Can Be Stopped:
a. Three SI pumps - RUNNING

Standard: Locates and identifies A, B and C SI pumps running.
Red lights on and Green lights off.

Comment:

ES-1.3, step 4.b

√ **Performance Step: 5** Stop SI pump C and place both switches in PULL STOP

Standard: Locates and identifies Bus 14 SI pump C and places switch in PULL STOP.
Locates and identifies Bus 16 SI pump C and places switch in PULL STOP.
Red lights off and Green lights off.

Comment:

ES-1.3, step 4.c

√ **Performance Step: 6** Stop both RHR pumps and place in PULL STOP

Standard: Locates and identifies A RHR pump and places switch in PULL STOP.
Locates and identifies B RHR pump and places switch in PULL STOP.
Red lights off and Green lights off.

Comment:

ES-1.3, step 4.d

Performance Step: 7 Both CNMT spray pumps - RUNNING

Standard: Locates and identifies A and B CNMT spray pumps running.
Red lights on and Green lights off.

Comment:

ES-1.3, step 4.e

√ **Performance Step: 8** Pull stop one CNMT spray pump

Standard: Locates and identifies A CS pump switch and places in PULL STOP.

or

Locates and identifies B CS pump switch and places in PULL STOP.
Red light off and Green light off for secured pump.

Comment:

ES-1.3, step 4.f

Performance Step: 9 Check CNMT pressure - LESS THAN 28 PSIG

Standard: Locates and identifies on PI-944, 945,947 or 949 CNMT pressure is <28 psig.

Comment:

ES-1.3, step 4.g

√ **Performance Step: 10** Place NaOH Tank outlet valve switches to OPEN

- ACV-836A
- ACV-836B

Standard: Locates, identifies and places NaOH Tank outlet valve switches to OPEN.

- ACV-836A is open
- ACV-836B is open

Comment:

ES-1.3, step 4.h

√ **Performance Step: 11** Reset CNMT spray

Standard: Depresses Containment Spray reset P/B.

Comment:

ES-1.3, step 4.i

√ **Performance Step: 12** Close discharge valves for idle CNMT spray pump(s)
- Pump A MOV-860A MOV-860B
- Pump B MOV-860C MOV-860D

Standard: Locates, identifies and closes discharge valves for idle CNMT spray pump stopped in Performance Step 8.
- Pump A MOV-860A MOV-860B - Closed
  or
- Pump B MOV-860C MOV-860D - Closed

Red lights off and Green lights on for closed valves.

Comment:

ES-1.3, step 5.a

Performance Step: 13 Establish Adequate SW Flow:
a. Verify at least two SW pumps - RUNNING

Standard: Locates and identifies (4) Service Water Pumps running. Red lights on and Green lights off.

Comment:

ES-1.3, step 5.b

Performance Step: 14 Verify AUX BLDG SW isolation valves - OPEN
- MOV-4615 and MOV-4734
- MOV-4616 and MOV-4735

Standard: Locates and identifies AUX BLDG SW isolation valves.
- MOV-4615 and MOV-4734 - OPEN
- MOV-4616 and MOV-4735 - OPEN

Red lights on and Green lights off.

Comment:

ES-1.3, step 5.c

Performance Step: 15 Determine required SW flow to CCW HXs per table:

Standard: Total of 5000 gpm - 6000 gpm equally divided to both HXs. Normal SW Discharge alignment.

Comment:

ES-1.3, step 5.d

√ **Performance Step: 16** Direct AO to adjust SW flow to required value.
IF on normal SW discharge:
- V-4619, CCW HX A
- V-4620, CCW HX B

Standard: Contacts AO to adjust Normal SW flow to a Total of 5000 gpm - 6000 gpm equally divided to both CCW HXs.

Cue: **Normal SW flow is a of Total of 5500 gpm equally divided between both CCW HXs.**

Comment:

ES-1.3, step 6.a

√ **Performance Step: 17** Check both CCW pumps - RUNNING

Standard: Locates A CCW Pump - Red light on and Green light off.
Locates B CCW Pump - Red light off and Green light on.
Identifies B CCW pump not running and goes to 6.a RNO

Comment:

ES-1.3, step 6.a.1 RNO (START Alternate Path)

Performance Step: 18 Start CCW pumps as power supply permits (122 kw each).

Standard: Locates and starts B CCW Pump.
Red light off. Green light on. White light on.
Identifies B CCW pump will not start.

Comment:

ES-1.3, step 6.a.2 RNO

√ **Performance Step: 19** IF both CCW pumps are running, THEN go to step 6.b.

Standard: Determines both CCW pumps are not running and does not go to step 6.b. Goes to RNO step 6.a.3.

Comment:

ES-1.3, step 6.a.3 RNO (End Alternate Path)

√ **Performance Step: 20**

IF only one CCW pump is running, THEN perform the following:
a) Place NRHx temperature control valve TCV-130 to MANUAL and close valve.
b) Manually open CCW MOV to only one operable RHR loop.
- Open MOV-738A

or

- Open MOV-738B

c) Go to step 7.

Standard:

a) Places NRHx temperature control valve TCV-130 to MANUAL and closes valve.
b) Locates, identifies and opens only (1) CCW valve to one RHR Hx:
- MOV-738A – open

or

- MOV-738B - open

Red light on and Green light off for open valve.
c) Goes to step 7. Does not perform step 6.b.

Comment:

ES-1.3, step 7.a

Performance Step: 21

Verify RHR System Alignment:
a. Verify the following valves - CLOSED
o RHR suction valves from loop A hot leg
- MOV-700
- MOV-701

o RHR discharge valves to loop B cold leg
- MOV-720
- MOV-721

Standard:

Locates, identifies and verifies closed:
- MOV-700
- MOV-701
- MOV-720
- MOV-721

Red lights off and Green lights on.

Comment:

ES-1.3, step 7.b

Performance Step: 22 Verify RHR pump suction crosstie valves - OPEN
- MOV-704A
- MOV-704B

Standard: Locates, identifies and verifies open:
- MOV-704A
- MOV-704B

Red lights on and Green lights off.

Comment:

ES-1.3, step 7.c

Performance Step: 23 Verify the following valves - OPEN
o RHR pump discharge to Rx vessel deluge valves
- MOV-852A
- MOV-852B

o RHR suction from sump B (inside CNMT)
- MOV-851A
- MOV-851B

Standard: Locates, identifies and verifies open:
- MOV-852A
- MOV-852B
- MOV-851A
- MOV-851B

Red lights on and Green lights off.

Comment:

ES-1.3, step 7.d

Performance Step: 24 Verify RCDT pump suction valves from sump B - CLOSED
- MOV-1813A
- MOV-1813B

Standard: Locates, identifies and verifies closed:
- MOV-1813A
- MOV-1813B

Red lights off and Green lights on.

Comment:

ES-1.3, step 8.a

√ **Performance Step: 25** Close RWST outlet valve to RHR pump suction, MOV-856 (turn on DC power key switch)

Standard: Locates, identifies and closes (turns on DC power key switch):
- MOV-856 - Closed

Red light off and Green light on.

Comment:

ES-1.3, step 8.b

√ **Performance Step: 26** Open both RHR suction valves from sump B (outside CNMT)
- MOV-850A - OPEN
- MOV-850B - OPEN

Standard: Locates, identifies and opens:
- MOV-850A - open
- MOV-850B - open

Red lights on and Green lights off.

Comment:

ES-1.3, step 8.c (START Alternate Path)

√ **Performance Step: 27** Check MOV-738A AND MOV-738B - BOTH OPEN

Standard: Locates, identifies and verifies: (one valve will be shut due to only having (1) CCW pump available – Performance Step 17)
- MOV-738A - Open
- MOV-738B - Open

Red light on and Green light off for open valve
Red light off and Green light on for closed valve.
Goes to step 8.c RNO since both valves are not open.

Comment:

ES-1.3, step 8.c RNO (End Alternate Path)

√ **Performance Step: 28** Perform the following:
1) IF MOV-738A open, THEN start RHR Pump A and go to step 8d.
2) IF MOV-738B open, THEN start RHR Pump B and go to step 8d.

Standard: Locates, identifies and starts:
RHR Pump A if MOV-738A is open.
RHR Pump B if MOV-738B is open.
Red light on and Green light off for started pump.
Goes to step 8.d.

Comment:

ES-1.3, step 8.d

Performance Step: 29 Start one RHR pump - ONE RHR PUMP RUNNING

Standard: Locates, identifies and verifies RHR pump started in previous step is still running.
Red light on and Green light off for running pump.

Comment:

ES-1.3, step 9

Performance Step: 30 Check RWST Level - LESS THAN 15%

Standard: Locates and determines what RWST Level is.

CUE: No further action is required.

Comment:

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM B

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are the HCO.
- Reactor trip with SI occurred.
- The has CRS initiated loss of coolant actions
- RWST level is at 28% and trending down slowly.
- The Control Room crew is currently at Step 22 of E-1.

Initiating Cue: The CRS directs you to transfer to Cold Leg Recirculation per ES-1.3, Transfer to Cold Leg Recirculation.

Facility: Ginna | Task No.: 005-001-01-01

Task/JPM Title: Placing LTOP on Service | JPM No.: 2008 NRC JPM C

K/A Reference: 010 A4.03 4.0 / 3.8

Examinee: | NRC Examiner:

Facility Evaluator: | Date:

Method of testing:

Simulated Performance: _____ | Actual Performance: X

Classroom _____ Simulator X Plant _____

Applicability: RO/SRO

SUBMITTED BY: Ted Coe (Developer) DATE: 6/30/08

REVIEWED BY: Art Vest (Training Technical Reviewer) DATE: 6/30/08

REVIEWED BY: Don Dettman (Operations Technical Reviewer) DATE: 6/30/08

APPROVED BY: John Brown (Training Management) DATE: 6/30/08

Task Standard:	Place PC-430 on service and all critical tasks evaluated as satisfactory.
Required Materials:	(1) Panel key for LTOP operations.
General References:	O-7, Alignment and Operation of the Reactor Vessel Overpressure Protection System, Rev. 04701 O-2.2, Plant Shutdown from Hot Shutdown to Cold Conditions, Rev. 15000
Handouts:	O-7, Alignment and Operation of the Reactor Vessel Overpressure Protection System, Rev. 04701
Time Critical Task:	NO
Validation Time:	10 minutes
Alternate Path:	NO
Instructor Notes:	Ensure a marked up copy O-7, Alignment and Operation of the Reactor Vessel Overpressure Protection System, Rev. 04701 is ready to give to the operator during the Initiating Cue.

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are an extra RO.
- A unit shutdown is in progress.
- The control room team is performing procedure O-2.2, Plant Shutdown from Hot Shutdown to Cold Conditions and are at step 6.4.20 waiting for LTOP to be placed on service.
- Section 1 through section 6.1 of O-7, Alignment and Operation of the Reactor Vessel Overpressure Protection System has been completed.

Initiating Cue: The Shift Manager directs you to place PCV-430 on service per O-7, Alignment and Operation of the Reactor Vessel Overpressure Protection System section 6.2.

CUE: Hand the Operator a marked up copy of copy O-7, Alignment and Operation of the Reactor Vessel Overpressure Protection System, Rev. 04701.

SIMULATOR SETUP

For the 2008 ILT NRC Exam load I/C # 173

or

- Any shutting down IC where LTOP is ready to be placed on service.
- Tave is between 350°F and 330°F.
- At least (1) RCP is running.
- RCS pressure is ~325 psig.
- Properly markup a copy of O-7, Alignment and Operation of the Reactor Vessel Overpressure Protection System, Rev. 04701 to section 6.2.

START TIME: _____

√ = CRITICAL STEP

O-7, step 6.2.1

Performance Step: 1

VERIFY the following MCB Alarms extinguished:

- AA-22, RCS OVER-PRESS PROTECTION TRAIN A HI PRESS
- AA-23, RCS OVER-PRESS PROTECTION TRAIN B HI PRESS
- AA-31, RCS OVER-PRESS PROTECTION TRAIN C HI PRESS

Standard:

MCB Alarms out:

- AA-22
- AA-23
- AA-31

Comment:

O-7, step 6.2.2

√ **Performance Step: 2**

ENSURE the PRZR PORV, PCV-430 Control Switch is in the CLOSE position.

Standard:

- PCV-430 control switch is in the closed position.
- Red light off and Green light on.

Comment:

O-7, step 6.2.3

√ **Performance Step: 3**

OPEN ACCUM TO SURGE TANK VLV SOV-8616A. (MCB Rear)

Standard:

- Gets proper key from CRS desk.
- SOV-8616A open.

Comment:

O-7, step 6.2.4

√ **Performance Step: 4** **ENSURE** N_2 ARMING VLV SOV-8619A is in the ARM position. (MCB Rear)

Standard:
- Uses proper key.
- SOV-8619A is in ARM.

Comment:

O-7, step 6.2.5

Performance Step: 5 **VERIFY CLOSED** PRZR PORV, PCV-430.

Standard:
- PCV-430 control switch is in the closed position.
- Red light off and Green light on.

Comment:

O-7, step 6.2.6

Performance Step: 6 **RECORD** pressure indicated on OP ACCUM A N_2 PRESSURE, PI-455. (MCB Rear)

Standard: Pressure recorded as shown on PI-455.

Comment:

O-7, step 6.2.7

Performance Step: 7 **IF** Accumulator A pressure is **NOT** between 735 and 760 psig, **THEN CHARGE** the accumulator as **PER** S-29.2, Charging the Reactor Vessel Overpressure Protection System Accumulators with N_2.
IF Accumulator A pressure is correct, **THEN MARK** this Step N/A.

Standard:
- Checks Accumulator A pressure is between 735 and 760 psig.
- charging is not required.
- Marks step N/A.

Comment:

O-7, step 6.2.8

Performance Step: 8 **ENSURE CLOSED** MOV 516 breaker, MCC C position 6C, VLV-516 RCS.

Standard: Calls AO to verify MOV 516 breaker is closed

CUE: Acknowledge request.
REPORT: MOV 516 breaker, MCC C position 6C is closed.
Comment:

O-7, step 6.2.9

Performance Step: 9 **ENSURE OPEN** PRZR PORV BLOCK VLV, MOV 516.

Standard:
- MOV 516, PRZR PORV BLOCK VLV is open.
- Red light on and Green light off.

Comment:

O-7, step 6.2.10

Performance Step: 10 **RECORD** the time Train A Overpressure Protection System is operable.

Standard: Records current time.

Comment:

Performance Step: 11 Reports PCV-430 is on service.

Standard: Reports PCV-430 is on service.

CUE: Acknowledge report.

Comment:

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM C

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are an extra RO.
- A unit shutdown is in progress.
- The control room team is performing procedure O-2.2, Plant Shutdown from Hot Shutdown to Cold Conditions and are at step 6.4.20 waiting for LTOP to be placed on service.
- Section 1 through section 6.1 of O-7, Alignment and Operation of the Reactor Vessel Overpressure Protection System has been completed.

Initiating Cue: The Shift Manager directs you to place PCV-430 on service per O-7, Alignment and Operation of the Reactor Vessel Overpressure Protection System section 6.2.

Facility: Ginna

Task No.: 344-068-05-02

Task/JPM Title: Respond To a Control Room Evacuation

JPM No.: 2008 NRC JPM D

K/A Reference: APE 068 AA1.23 4.3 / 4.4

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance: _____

Actual Performance: X

Classroom _____ Simulator X Plant _____

Applicability: RO/SRO

SUBMITTED BY: Ted Coe
Developer

DATE: 6/30/08

REVIEWED BY: Art Vest
Training Technical Reviewer

DATE: 6/30/08

REVIEWED BY: Don Dettman
Operations Technical Reviewer

DATE: 6/30/08

APPROVED BY: John Brown
Training Management

DATE: 6/30/08

Task Standard:	Immediate actions of AP-CR.1 completed from memory and all critical tasks evaluated as satisfactory.
Required Materials:	None
General References:	AP-CR.1, CONTROL ROOM INACCESSIBILITY, Rev.24
Handouts:	AP-CR.1, CONTROL ROOM INACCESSIBILITY, Rev.24
Time Critical Task:	NO
Validation Time:	5 minutes
Alternate Path:	Yes
Instructor Notes:	Evaluator will act as the CRS for the initiating cue.

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are the HCO.
- The CO and the SM are in the Relay Room investigating an issue.
- I will be the CRS if you need one.
- The plant is at 100% power in a normal 50/50 at power lineup.

Initiating Cue: You have the watch.

SIMULATOR SETUP

For the 2008 ILT NRC Exam load I/C # 174

or

- Any 100% IC (IC-19).
- The plant in a normal 100% power lineup.
- In a normal 50/50 electric lineup.
- Insert TUR02, Turbine failure to Auto trip.
- Insert TUR17A, Turbine Stop Valve: VLV 3545.
- Insert TUR17B, Turbine Stop Valve: VLV 3544.
- Insert RPS05A, Reactor trip A breaker failure.
- Insert RPS05B, Reactor trip B breaker failure.
- A-RPS12
- TURB12A,B,C,D
- A-R0D05

START TIME: _____

√ = CRITICAL STEP

To Evaluator: All Operator actions shall be from memory, without the aid of the procedure.

CRS Initiating Cue: Status update, Ready. **(wait for response)** I have just been informed there are poisonous fumes coming up from the Relay Room. Entering AP-CR.1, CONTROL ROOM INACCESSIBILITY. End of Update. HCO. **(wait for response, if required)** Perform immediate operator actions for AP-CR.1. **(wait for response)** That's correct.

AP-CR.1, step 1 (Start Alternate Path)

Performance Step: 1

Verify Reactor Trip:
- At least one train of reactor trip breakers – OPEN.
- Neutron flux – LOWERING.
- MRPI indicates - ALL CONTROL AND SHUTDOWN RODS ON BOTTOM.

Standard:

Reactor is not tripped.
- No reactor trip breakers are OPEN.
- Neutron flux at 100%.
- MRPI indicates ALL CONTROL AND SHUTDOWN RODS are still at normal positions.

Goes to step 1 RNO.

Comment:

AP-CR.1, step 1 RNO

Performance Step: 2

Manually trip reactor.

Standard:

Depresses Reactor Trip Pushbutton

Reactor is not tripped.
- No reactor trip breakers are OPEN.
- Neutron flux at 100%.
- MRPI indicates ALL CONTROL AND SHUTDOWN RODS are still at normal positions.

Goes to RNO step 1.a.

Comment:

AP-CR.1, steps 1.a thru 1.d RNO

√ **Performance Step: 3**

IF reactor trip breakers NOT open, THEN perform the following:
a. Open Bus 13 and Bus 15 normal feed breakers.
b. Verify rod drive MG sets tripped.
c. Close Bus 13 and Bus 15 normal feed breakers.
d. Reset lighting breakers.
IF the Rx can NOT be tripped from the Control Room, THEN dispatch personnel to locally open the reactor trip breakers.

Standard:

a. Opens Bus 13 and Bus 15 normal feed breakers.
- Red lights off and Green lights on.

b. Rod drive MG sets tripped.
- Rod Drive MG set A and B Red lights off and Green lights on.

c. Closes Bus 13 and Bus 15 normal feed breakers.
- Red lights on and Green lights off.

d. Resets lighting breakers by depressing Bus 13 and 15 Lighting Breaker green Pushbuttons.

(ONLY a, b and c are critical steps. Step d is NOT a critical step.)

Comment:

AP-CR.1, step 2

Performance Step: 4

Verify Turbine Stop Valves - CLOSED

Standard:

On EHC valve status panel. SVL Open red light on and SVR Open red light on.

Identifies Turbine stop valves are still open and goes to step 2 RNO.

Comment:

AP-CR.1, step 2 RNO (End Alternate Path)

√ **Performance Step: 5** Manually trip turbine. IF turbine can NOT be tripped, THEN close both MSIVs.

Standard: Depresses Turbine Emergency Trip P/B – Turbine Does not Trip. Closes A MSIV and B MSIV

- Handswitch MSIV A, AOV-3517 to close.
- Handswitch MSIV B, AOV-3516 to close.
- Red lights off and Green lights on.

(Critical Steps are closing A and B MSIVs.)

Comment:

Completion of Immediate Operator Actions

Performance Step: 6 CRS, Immediate Operator Actions for AP-CR.1 are complete.

Standard: Informs CRS that, Immediate Operator Actions for AP-CR.1 are complete.

CUE: Acknowledge report.

CUE: No further actions are required.

Comment:

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM D

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are the HCO.
- The CO and the SM are in the Relay Room investigating an issue.
- I will be the CRS if you need one.
- The plant is at 100% power in a normal 50/50 at power lineup.

Initiating Cue: You have the watch.

Facility: Ginna | Task No.: 076-004-05-01

Task/JPM Title: Respond to a Total Loss of SW | JPM No.: 2008 NRC JPM E

K/A Reference: 076 A2.01 3.5* / 3.7*

Examinee: | NRC Examiner:

Facility Evaluator: | Date:

Method of testing:

Simulated Performance: _____ | Actual Performance: X

Classroom _____ Simulator X Plant _____

Applicability: RO/SRO

SUBMITTED BY: Ted Coe, Developer | DATE: 6/30/08

REVIEWED BY: Art Vest, Training Technical Reviewer | DATE: 6/30/08

REVIEWED BY: Don Dettman, Operations Technical Reviewer | DATE: 6/30/08

APPROVED BY: John Brown, Training Management | DATE: 6/30/08

Task Standard:	E-0 immediate actions performed, RCPs tripped, Letdown isolated and all critical tasks evaluated as satisfactory.
Required Materials:	None
General References:	AP-SW.2, LOSS OF SERVICE WATER, Rev. 00801 E-0, REACTOR TRIP OR SAFETY INJECTION, Rev. 04100
Handouts:	AP-SW.2, LOSS OF SERVICE WATER, Rev. 00801
Time Critical Task:	NO
Validation Time:	10 minutes
Alternate Path:	YES
Instructor Notes:	Ensure a copy of AP-SW.2, LOSS OF SERVICE WATER, Rev. 00801 is ready to give to the operator during the Initiating Cue.

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are the CO.
- I will be the CRS if you need one.
- The plant is at 100% power in a normal 50/50 electrical lineup.
- The running Service Water pumps have just tripped.

Initiating Cue: The CRS directs you to perform AP-SW.2, LOSS OF SERVICE WATER.

CUE: Hand the Operator a copy AP-SW.2, LOSS OF SERVICE WATER, Rev. 00801.

SIMULATOR SETUP

For the 2008 ILT NRC Exam load I/C # 175

or

- Any 100% IC (IC-19).
- The plant in a normal 100% power lineup.
- In a normal 50/50 electric lineup.
- Ensure A and C Service Water pumps are running.
- Insert CLG01A, CLG01B, CLG01C and CLG01D.
- Ensure A and C Service Water pumps are tripped and no other SW pumps are running.
- Freeze simulator and wait until the examinee takes the watch.

START TIME: _____

√ = CRITICAL STEP

AP-SW.2, step 1

Performance Step: 1 Verify 480V AC Emergency Busses 17 and 18 – ENERGIZED.

Standard:
- Busses 17 and 18 voltage meters read ~480 volts.
- Normal feeds to Bus 17 and 18 are closed.
- Red lights on and Green lights off.

Comment:

AP-SW.2, step 2a

Performance Step: 2 Verify SW Pump Alignment:
Check at least one SW pump running in each loop:
- A or B pump in loop A.
- C or D pump in loop B.

Standard:
- A and C SW Pumps Tripped (given in initial cue).
- B and D SW Pumps not running. Red lights off and Green lights on.
- Recognizes no Service Water pumps running.
- Goes to step 2a RNO.

CUE: Acknowledge any report.

Comment:

AP-SW.2, step 2.a.1 RNO (Start Alternate Path)

Performance Step: 3 a. Perform the following:
1) Manually start SW pumps as necessary (257 kw each).

Standard:
- Attempt to start B and D SW Pumps by taking associated control switches to Start.
- Recognizes B and D SW Pumps trip.
- Red lights off, White lights on and Green lights on.
- May report SW pump trips to the CRS.

CUE: Acknowledge any report.

Comment:

AP-SW.2, step 2.a.2 RNO

Performance Step: 4 IF adequate cooling can NOT be supplied to a running D/G, THEN perform the following:
a) Pull stop affected D/G.
b) Immediately depress voltage shutdown pushbutton.

Standard:
- D/G A and B voltmeters read "0 volts".
- Recognizes no Diesel Generators are running and performs no actions.

CUE: **Acknowledge any report.**

Comment:

AP-SW.2, step 2.a.3.a RNO

√ **Performance Step: 5** IF no SW pumps can be operated, THEN perform the following:
a) Trip the reactor.

Standard: Depresses Reactor Emergency Trip Pushbutton.

CUE: **Acknowledge any report.**

Comment:

AP-SW.2, step 2.a.3.b RNO

√ **Performance Step: 6** WHEN all E-0 Immediate Actions done, THEN trip BOTH RCPs.

Standard:

E-0 Immediate Actions: (these actions performed from memory)
1. **Verify Reactor Trip** - Neutron flux lowering, at least one train of Reactor trip breakers open and MRPI indicates all rods are on the bottom.
2. **Verifies Turbine is tripped** – Turbine Stop valves are closed as indicated on EHC valve status panel. SVL Closed Green light on and SVR Closed Green light on.
3. **Verify Both Trains of AC Emergency Busses energized to at least 420 volts: Busses 14, 16, 17 and 18** – Volt meters for Busses 14, 16, 17 and 18 all read ~480 VAC.
4. **Check if SI is Actuated: Any SI Annunciator – LIT** - Annunciators D-19, 21, 22 and 28 extinguished and no indications that an SI is required.

Trip both RCPs:
1. **A RCP H/S to Stop** - Red light off and Green light on.
2. **B RCP H/S to Stop** - Red light off and Green light on.

(Critical steps are to trip both RCPs.)

CUE: **Acknowledge any report.**

Comment:

AP-SW.2, step 2.a.3.c RNO

√ **Performance Step: 7** Close letdown isol, AOV-427.

Standard:
- AOV-427 switch in Closed.
- Red light off and Green light on.

CUE: **Acknowledge any report.**

Comment:

AP-SW.2, step 2.a.3.d RNO (End Alternate Path)

Performance Step: 8 Close excess letdown, HCV-123.

Standard: HCV-123 is at 0% demand.

CUE: **Acknowledge any report.**

CUE: **No further action is required.**

Comment:

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM E

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are the CO.
- I will be the CRS if you need one.
- The plant is at 100% power in a normal 50/50 electrical lineup.
- The running Service Water pumps have just tripped.

Initiating Cue: The CRS directs you to perform AP-SW.2, LOSS OF SERVICE WATER.

Facility: Ginna | Task No.: 064-007-01-01A

Task/JPM Title: Shutdown the "A" Emergency Diesel Generator | JPM No.: 2008 NRC JPM F

K/A Reference: 064 A4.06 3.9 / 3.9

Examinee: | NRC Examiner:

Facility Evaluator: | Date:

Method of testing:

Simulated Performance: _____ | Actual Performance: X

Classroom _____ Simulator X Plant _____

Applicability: RO/SRO

SUBMITTED BY: Ted Coe, Developer DATE: 6/30/08

REVIEWED BY: Art Vest, Training Technical Reviewer DATE: 6/30/08

REVIEWED BY: Don Dettman, Operations Technical Reviewer DATE: 6/30/08

APPROVED BY: John Brown, Training Management DATE: 6/30/08

Task Standard:	The "A" D/G shutdown and all critical tasks evaluated as satisfactory.
Required Materials:	None
General References:	STP-O-12.1: EMERGENCY DIESEL GENERATOR A, Rev. 00201
Handouts:	STP-O-12.1: EMERGENCY DIESEL GENERATOR A, Rev. 00201
Time Critical Task:	NO
Validation Time:	20 minutes
Alternate Path:	NO
Instructor Notes:	Ensure a marked up copy of STP-O-12.1: EMERGENCY DIESEL GENERATOR A, Rev. 00201 is ready to give to the operator during the Initiating Cue.

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are an extra RO.
- The plant is at 100% power with a normal electrical lineup.
- The "A" EDG is running for the monthly surveillance per STP-O-12.1 through Step 6.2.42.
- All readings have been taken and evaluated as satisfactory.
- There is an AO available at the A D/G.
- The Diesel has run for 65 minutes, all readings have been taken.
- The AO has the data sheets.
- Bi-Annual selected Service Water Pump starts are not required.

Initiating Cue: The CRS has directed you to shutdown the "A" D/G per STP-O-12.1 steps 6.3 through 6.3.19.

CUE: Hand the Operator a marked up copy of STP-O-12.1, EMERGENCY DIESEL GENERATOR A, Rev. 00201.

SIMULATOR SETUP

For the 2008 ILT NRC Exam load I/C # 176 and Insert Manual Triggers 1 and 2 to reset DG1A ELCP Annunciator Panel, when requested in performance step 24.

or

- 100% power IC with normal electrical lineup (IC-19).
- "A" D/G running at between 2025 and 2050 KW per STP-O-12.1, step 6.2.36 rev. 00201.
- Ensure "A" SW running and "C" SW stopped.
- Ensure SW selected to "A" SW Pump.
- Complete and mark up STP-O-12.1 through Step 6.2.42.
- Insert Manual Triggers 1 and 2 to reset DG1A ELCP Annunciator Panel, when requested in performance step 24.

START TIME: _____

√ = CRITICAL STEP

STP-O-12.1, step 6.3.1.1

Performance Step: 1

WHEN Emergency Diesel Generator A has operated between 2025 and 2050 KW for a period of greater than 60 minutes but less than or equal to 115 minutes, **THEN UNLOAD** Emergency Diesel Generator A as follows:
1. **RECORD** time unloading begins.

Standard: Records time unloading begins.

Comment:

STP-O-12.1, step 6.3.1.2

√ **Performance Step: 2**

IF the D/G A LOAD LIMIT on mechanical governor is **NOT** in the MAX FUEL position, **THEN PERFORM** the following:
OTHERWISE, MARK this Step N/A

a. **ADJUST** Emergency Diesel Generator A load to between 1925 and 1950 KW using the D/G A GOVERNOR switch **AND MAINTAIN** Power Factor 0.9 (lag) using the D/G A AUTO VOLTAGE CONTROL RHEOSTAT as necessary.
b. **RESTORE** LOAD LIMIT setting to normal (MAX FUEL).

Standard:

- Calls the AO to request if LOAD LIMIT setting is at MAX FUEL.
- Adjusts D/G A load to between 1925 and 1950 KW using the D/G A GOVERNOR switch.
- Maintains Power Factor 0.9 (lag) using the D/G A AUTO VOLTAGE CONTROL RHEOSTAT.
- Calls the AO to restore LOAD LIMIT setting to MAX FUEL.

CUE: **When asked about Load Limit: LOAD LIMIT is NOT at Max Fuel.**

When told to adjust Load Limit: LOAD LIMIT is now at Max Fuel.

Comment:

STP-O-12.1, step 6.3.1.3

Performance Step: 3

IF the Mechanical Governor was adjusted to lock the load, **THEN ADJUST** Emergency Diesel Generator A load to between 2150 and 2175 KW using D/G A GOVERNOR switch **AND MAINTAIN** Power Factor at approximately 0.9 (lag) using D/G A AUTO VOLTAGE CONTROL RHEOSTAT as necessary. **OTHERWISE, MARK** this Step N/A.

Standard:

- Adjusts D/G A load to between 2150 and 2175 KW using D/G A GOVERNOR switch.
- Maintains Power Factor at approximately 0.9 (lag) using D/G A AUTO VOLTAGE CONTROL RHEOSTAT.

Comment:

STP-O-12.1, step 6.3.1.4

√ **Performance Step: 4**

UNLOAD Emergency Diesel Generator A; to 400 KW by intermittently turning D/G A GOVERNOR switch in the lower direction, **AND MAINTAIN** Power Factor at approximately 0.9 (lag) using D/G A AUTO VOLTAGE CONTROL RHEOSTAT as necessary.

Standard:

- Does not violate the D/G A unloading rate of approximately 500 KW every 30 seconds.
- Unloads D/G A, to 400 KW by intermittently turning D/G A GOVERNOR switch in the lower direction.
- Maintains Power Factor at approximately 0.9 (lag) using D/G A AUTO VOLTAGE CONTROL RHEOSTAT.

Comment:

STP-O-12.1, step 6.3.2

Performance Step: 5

IF Bi-Annual selected Service Water Pump starts are required, **THEN PERFORM** Attachment 13, Bi-Annual Service Water Pump Starts. **OTHERWISE, MARK** this Step **AND** Attachment 13 N/A.

Standard:

Determines from Initiating Cue, not required, marks step N/A.

Comment:

STP-O-12.1, step 6.3.3

√ **Performance Step: 6** **WHEN** Emergency Diesel Generator A load has been reduced to 400 KW, **THEN TRIP** one Emergency Diesel Generator A supply breaker.

Standard:

- WHEN D/G A is at ~400 KW, TRIPS one D/G A supply breaker for Bus 14 or Bus 18.
- Green light on, red light off.
- If Diesel Generator Trips on Reverse Power due to operator error, the step will be evaluated as Unsat.

Comment:

STP-O-12.1, step 6.3.4

√ **Performance Step: 7** **WHEN** Emergency Diesel Generator A load has been reduced to approximately 200 KW **AND** Power Factor is 0.9 (lag), **THEN TRIP** the remaining closed Emergency Diesel Generator A supply breaker.

Standard:

- WHEN D/G A load is at ~200 KW and Power Factor is 0.9 (lag), TRIPS the remaining closed D/G A supply breaker for Bus 14 or Bus 18.
- Green light on, red light off.
- If Diesel Generator Trips on Reverse Power due to operator error, the step will be evaluated as Unsat.

Comment:

STP-O-12.1, step 6.3.5

Performance Step: 8 **RECORD** time breaker was opened.

Standard: Records time breaker was opened.

Comment:

STP-O-12.1, step 6.3.6

Performance Step: 9 **IF** Attachment 13, Bi-Annual Service Water Pump Starts, was performed, **THEN ENSURE** Service Water Pumps **AND** Selector Switches are aligned to the desired configuration. **OTHERWISE, MARK** this Step N/A.

Standard: Determines from Initiating Cue, not required, marks step N/A.

Comment:

STP-O-12.1, step 6.3.7

√ **Performance Step: 10** **PLACE** D/G A UNIT/PARALLEL OPERATION SELECTOR switch to UNIT position.

Standard: D/G A UNIT/PARALLEL OPERATION SELECTOR switch in UNIT position.

Comment:

STP-O-12.1, step 6.3.8

√ **Performance Step: 11** **PLACE** D/G A SYNCHROSCOPE switch in the BUS 14 or BUS 18 position.

Standard: D/G A SYNCHROSCOPE switch in the BUS 14 or BUS 18 position.

Comment:

STP-O-12.1, step 6.3.9

Performance Step: 12 **IF** Emergency Diesel Generator A frequency is high, **THEN OPERATE** D/G A GOVERNOR switch to return to a setting of between 60 and 60.1 Hertz (revolving slowly in the clockwise direction) **AND TRANSFER** frequency setting data to Attachment 3, As Found/As Left Voltage and Frequency. **OTHERWISE, MARK** this Step N/A.

Standard: Determines frequency is satisfactory, marks step N/A.

Comment:

STP-O-12.1, step 6.3.10

√ **Performance Step: 13** PLACE D/G A SYNCHROSCOPE switch to the OFF position.

Standard: D/G A SYNCHROSCOPE switch in off.

Comment:

STP-O-12.1, step 6.3.11

Performance Step: 14 **MEASURE** the Emergency Diesel Generator A speed using a photo-tachometer, **AND RECORD** speed data on Attachment 3, As Found/As Left Voltage and Frequency.

Standard:
- Directs the AO to measure the D/G A speed using a Photo-tachometer.
- Records the speed data on Attachment 3.

CUE: **A D/G speed is 900 rpm.**

Comment:

STP-O-12.1, step 6.3.12

Performance Step: 15 **ADJUST** D/G A AUTO VOLTAGE CONTROL RHEOSTAT to establish Emergency Diesel Generator A output voltage between 480 and 490 Volts (adjust as close to 480 volts as possible) **AND RECORD** voltage data on Attachment 3, As Found/As Left Voltage and Frequency.

Standard:
- D/G A output voltage between 480 and 490 Volts.
- Records voltage data on Attachment 3.

Comment:

STP-O-12.1, step 6.3.13

Performance Step: 16 **RECORD** the as left D/G A AUTO VOLTAGE CONTROL RHEOSTAT position on Attachment 14, Auto Voltage Control Rheostat After Start – As Left, by sketching in the dial setting.

Standard: Sketching in the dial setting on Attachment 14.

Comment:

STP-O-12.1, step 6.3.14

√ **Performance Step: 17** **TURN** the D/G A CONTROL switch to the STOP position.

Standard: D/G A CONTROL switch to STOP then spring returns to mid position (red flagged).

Comment:

STP-O-12.1, step 6.3.15

√ **Performance Step: 18** **PUSH AND HOLD** the D/G A VOLTAGE SHUTDOWN button (Black button) for a few seconds immediately after stopping Emergency Diesel Generator A.

Standard: Pushes and holds the D/G A VOLTAGE SHUTDOWN button for a few seconds immediately after stopping D/G A.

CUE: If requested, report as the AO, "A" D/G has stopped.

Comment:

STP-O-12.1, step 6.3.16

√ **Performance Step: 19** **WHEN** the Emergency Diesel Generator A has stopped rolling, **THEN PUSH** the following buttons:

- D/G A RESET
- D/G A FIELD RESET

Standard:

- D/G A RESET button depressed.
- D/G A FIELD RESET button depressed.

CUE: If requested, report as the AO, "A" D/G has stopped.

Comment:

STP-O-12.1, step 6.3.17

Performance Step: 20 **WHEN** the Emergency Diesel Generator A is reset, **THEN VERIFY** the following indicating lamps are illuminated (MCB Rear):

- AIR START SOLENOID VALVE 1 POWER AVAILABLE
- AIR START SOLENOID VALVE 2 POWER AVAILABLE
- START RELAY 1 POWER AVAILABLE
- START RELAY 2 POWER AVAILABLE

Standard: Verifies the following indicating lamps are illuminated:

- AIR START SOLENOID VALVE 1 POWER AVAILABLE
- AIR START SOLENOID VALVE 2 POWER AVAILABLE
- START RELAY 1 POWER AVAILABLE
- START RELAY 2 POWER AVAILABLE

Comment:

STP-O-12.1, step 6.3.18

Performance Step: 21 **DECLARE** Emergency Diesel Generator A unavailable.

Standard: Informs the CRS/HCO A D/G is unavailable.

CUE: **Acknowledge report.**

Comment:

STP-O-12.1, step 6.3.19.1

Performance Step: 22 **VERIFY** D/G A CONTROL switch reset alarm operability as follows:

1. **VERIFY** no other alarm condition exists on the Emergency Diesel Generator A alarm panel.

Standard: No alarms.

CUE: **If requested, report as the AO, no other alarm condition exists on the Emergency Diesel Generator A alarm panel.**

Comment:

STP-O-12.1, step 6.3.19.2

√ **Performance Step: 23** **PLACE** D/G A CONTROL switch in the PULL STOP position **AND VERIFY** the following:

- MCB Alarm J-24, EMERGENCY DIESEL GEN 1A PANEL, is illuminated.
- Emergency Diesel Generator A START RELAY 1 POWER AVAILABLE **AND** START RELAY 2 POWER AVAILABLE lights are extinguished (MCB).

Standard:

- D/G A CONTROL switch in PULL STOP.
- MCB Alarm J-24, EMERGENCY DIESEL GEN 1A PANEL, is illuminated.
- Emergency Diesel Generator A START RELAY 1 POWER AVAILABLE AND START RELAY 2 POWER AVAILABLE lights are extinguished (MCB).

Comment:

STP-O-12.1, step 6.3.19.3

Performance Step: 24 **DEPRESS** ACK button at DG1A ELCP Annunciator Panel **AND VERIFY** Emergency Diesel Generator A shutdown reset annunciator (R3) is illuminated.

Standard: Contacts AO to perform step 6.3.19.3.

CUE: Acknowledge request.

Simulator Operator: Insert Manual Triggers 1 and 2 to reset DG1A ELCP Annunciator Panel.

CUE: ACK button at DG1A ELCP Annunciator Panel has been depressed and (R3) is illuminated.

Comment:

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM F

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are an extra RO.
- The plant is at 100% power with a normal electrical lineup.
- The "A" EDG is running for the monthly surveillance per STP-O-12.1 through Step 6.2.42.
- All readings have been taken and evaluated as satisfactory.
- There is an AO available at the A D/G.
- The Diesel has run for 65 minutes, all readings have been taken.
- The AO has the data sheets.
- Bi-Annual selected Service Water Pump starts are not required.

Initiating Cue: The CRS has directed you to shutdown the "A" D/G per STP-O-12.1 steps 6.3 through 6.3.19.

Facility: Ginna

Task No.: 015-007-01-01A

Task/JPM Title: Remove a Power Range Channel from Service.

JPM No.: 2008 NRC JPM G

K/A Reference: 015 A2.02 3.1 / 3.5*

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance: _____

Actual Performance: X

Classroom _____ Simulator X Plant _____

Applicability: RO/SRO

SUBMITTED BY: Ted Coe
Developer

DATE: 6/30/08

REVIEWED BY: Art Vest
Training Technical Reviewer

DATE: 6/30/08

REVIEWED BY: Don Dettman
Operations Technical Reviewer

DATE: 6/30/08

APPROVED BY: John Brown
Training Management

DATE: 6/30/08

Task Standard: Remove N-41 from service and all critical tasks evaluated as satisfactory.

Required Materials: None

General References: ER-NIS.3, PR Malfunction, Rev. 26

Handouts: ER-NIS.3, PR Malfunction, Rev. 26

Time Critical Task: NO

Validation Time: 19 minutes

Alternate Path: NO

Instructor Notes: Ensure a marked up copy of ER-NIS.3, PR Malfunction, Rev. 26 is ready to give to the operator during the Initiating Cue.

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are an extra RO.
- Power Range channel N-41 drifted low over a period of several minutes and has been declared inoperable.
- No plant transient has occurred.
- Procedure ER-NIS.3 is being implemented.
- Reactor power is 100%.
- No other channels have been defeated.

Initiating Cue: The CRS has directed you to remove PR N-41 from service per ER-NIS.3. Step 4.4 Attachment N-41 Defeat.
All notifications have been made and approvals received.

CUE: Hand the Operator a marked up copy of ER-NIS.3, PR Malfunction, Rev. 26.

SIMULATOR SETUP

For the 2008 ILT NRC Exam load I/C # 177

or

- Select IC 19 (or any full power IC).
- Place Rods in manual.
- Place N-41 to Rod Drop Bypass, reduce gain to 0.
- Return Rod Drop Bypass to Normal.
- Adjust Tave = Tref.

START TIME: _____

√ = CRITICAL STEP

ER-NIS.3, Att. N-41 Defeat, step 1

√ **Performance Step: 1**

IF the PPCS is operational, THEN delete NIS Channel 41 from processing by performing the following:

a. Select "Group Update" display.
b. Select "List Server Groups".
c. Select NIS1 from the pick list.
d. Turn "OFF" scan processing, then click the "Set Scan Processing" button.
e. Answer prompts.

Standard:

Deletes NIS Channel 41 from processing by performing the following:

- Selects "Group Update" display.
- Selects "List Server Groups".
- Selects NIS1 from the pick list.
- Turns "OFF" scan processing, then clicks the "Set Scan Processing" button.
- Answers prompts.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 2

Performance Step: 2

Verify the ROD CONTROL BANK SELECTOR switch (MCB) is in the M (MANUAL) position.

Standard:

ROD CONTROL BANK SELECTOR switch is selected to MANUAL.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 3

Performance Step: 3

Place the DROPPED ROD MODE switch (Power Range N41A drawer) to BYPASS AND verify the following:

- DROPPED ROD BYPASS (local light) is lit.
- POWER RANGE-1 ROD DROP BYPASS (MCB bypass status light) is lit.
- Annunciator (MCB) E-7, NIS TRIP BYPASS, is lit.

Standard:

Places the DROPPED ROD MODE to BYPASS AND verifies:

- DROPPED ROD BYPASS (local light) is lit.
- POWER RANGE-1 ROD DROP BYPASS (MCB bypass status light) is lit.
- Annunciator (MCB) E-7, NIS TRIP BYPASS, is lit.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 4

√ **Performance Step: 4**

Place T/405E DELTA T DEFEAT switch (RIL Insertion Limit Rack) to LOOP A UNIT 1 (Defeats the delta T Runback and Rodstop for the failed channel AND removes the associated delta-T input from the RIL computer-Annunciators F-30 AND F-31 will clear if lit).

Standard:

Places T/405E DELTA T DEFEAT switch (RIL Insertion Limit Rack) to LOOP A UNIT 1 - Annunciators F-30 AND F-31 will clear if lit.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 5

√ **Performance Step: 5**

Place the OVERTEMP TRIP bistable (Red R-1 Protection Channel 1 rack) proving switch to DEFEAT (UP) AND verify the following:

- Annunciator F-23, RCS OT)T CHANNEL ALERT, is lit
- Proving light OFF if TI-405B > or = TI-405A

IF any proving light status is NOT correct, THEN submit an ACTION Report on the discrepancy and continue with the channel defeat steps.

Standard:

Places the OVERTEMP TRIP bistable proving switch to DEFEAT (UP) AND verifies the following:

- Annunciator F-23, RCS OT delta-T CHANNEL ALERT, is lit
- Proving light OFF if TI-405B > or = TI-405A

Comment:

ER-NIS.3, Att. N-41 Defeat, step 6

√ **Performance Step: 6**

Place the OVERPOWER TRIP bistable (Red R-1 Protection Channel 1 rack) proving switch to DEFEAT (UP) AND verify the following:

- Annunciator F-32, RCS OP delta-T CHANNEL ALERT, is lit
- Proving light OFF if TI-405B > or = TI-405C

IF any proving light status is NOT correct, THEN submit an ACTION Report on the discrepancy and continue with the channel defeat steps.

√ **Standard:**

Places the OVERPOWER TRIP bistable proving switch to DEFEAT (UP) AND verifies the following:

- Annunciator F-32, RCS OP delta-T CHANNEL ALERT, is lit
- Proving light OFF if TI-405B > or = TI-405C

Comment:

ER-NIS.3, Att. N-41 Defeat, step 7

Performance Step: 7 Verify the following bistables are lit:
a. TC405A OP Delta T Loop A
b. TC405C OT Delta T Loop A

Standard: Verifies bistables are lit:
a. TC405A OP Delta T Loop A
b. TC405C OT Delta T Loop A

Comment:

ER-NIS.3, Att. N-41 Defeat, step 8

√ **Performance Step: 8** Place the UPPER SECTION DEFEAT switch (Detector Current Comparator- Miscellaneous Control & Indications drawer) to the PRN41 position AND verify the following:

- Local light for CHANNEL DEFEAT upper section is lit.

Standard: Places the UPPER SECTION DEFEAT switch to the PRN41 position AND verifies:
Local light for CHANNEL DEFEAT upper section is lit.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 9

√ **Performance Step: 9** Place the LOWER SECTION DEFEAT switch (Detector Current Comparator-Miscellaneous Controls & Indications drawer) to the PRN41 position AND verify the following:

- Local light for CHANNEL DEFEAT lower section is lit.

Standard: Places the LOWER SECTION DEFEAT to the PRN41 position AND verifies:
Local light for CHANNEL DEFEAT lower section is lit.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 10

√ **Performance Step: 10** Place the POWER MISMATCH BYPASS switch (Detector Current Comparator-Miscellaneous Controls & Indications drawer) to BYPASS PR N41.

Standard: Places the POWER MISMATCH BYPASS to BYPASS PR N41.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 11

√ **Performance Step: 11** Place the ROD STOP BYPASS switch (Detector Current Comparator-Miscellaneous Controls & Indications drawer) to BYPASS PR N41.

Standard: Places the ROD STOP BYPASS switch to BYPASS PR N41.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 12

√ **Performance Step: 12** Place the COMPARATOR CHANNEL DEFEAT switch (Comparator and Ratedrawer) to N41 AND verify the following:

- Local light for COMPARATOR DEFEAT is lit.

Standard: Places the COMPARATOR CHANNEL DEFEAT switch to N41 AND verifies:

- Local light for COMPARATOR DEFEAT is lit.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 13

√ **Performance Step: 13**

Remove the 118V 5A AC INSTR POWER fuses (Power Range N41B drawer) AND verify the following alarms (MCB) are lit:

- E-18, POWER RANGE LOSS OF DETECTOR VOLTAGE
- E-19, POWER RANGE HI RANGE CHANNEL ALERT 108%
- E-21, POWER RANGE OVERPOWER ROD STOP 103%
- E-27, POWER RANGE LO RANGE CHANNEL ALERT 24%
- E-28, POWER RANGE ROD DROP ROD STOP -5%/5 SEC

Standard:

Removes the 118V 5A AC INSTR POWER fuses (Power Range N41B drawer) AND verifies the following alarms (MCB) are lit:

- E-18, POWER RANGE LOSS OF DETECTOR VOLTAGE
- E-19, POWER RANGE HI RANGE CHANNEL ALERT 108%
- E-21, POWER RANGE OVERPOWER ROD STOP 103%
- E-27, POWER RANGE LO RANGE CHANNEL ALERT 24%
- E-28, POWER RANGE ROD DROP ROD STOP -5%/5 SEC

Comment:

ER-NIS.3, Att. N-41 Defeat, step 13.1

Performance Step: 14

Verify the following red bistable lights (MCB) are lit:

- HI POW RANGE P-10 NC41M
- HI POW RANGE P-8 NC41N
- LO POW RANGE TRIP NC41P
- HI POW RANGE TRIP NC41R
- HI POW RANGE P-9 NC41S

IF any bistable above is NOT lit, THEN the channel may not be in the tripped.

Standard:

Verifies the following red bistable lights (MCB) are lit:

- HI POW RANGE P-10 NC41M
- HI POW RANGE P-8 NC41N
- LO POW RANGE TRIP NC41P
- HI POW RANGE TRIP NC41R
- HI POW RANGE P-9 NC41S

Comment:

ER-NIS.3, Att. N-41 Defeat, step 13.2

Performance Step: 15

Verify the following status lights (Power Range N41A drawer) are lit:

- CONTROL POWER ON
- LOSS OF DETECTOR VOLT
- OVERPOWER TRIP HIGH RANGE
- OVERPOWER ROD STOP
- OVERPOWER TRIP LOW RANGE
- POWER ABOVE PERMISSIVE P10
- POWER ABOVE PERMISSIVE P8
- POWER ABOVE PERMISSIVE P9
- DROPPED ROD ROD STOP
- DROPPED ROD BYPASS

Standard:

Verifies the following status lights (Power Range N41A drawer) are lit:

- CONTROL POWER ON
- LOSS OF DETECTOR VOLT
- OVERPOWER TRIP HIGH RANGE
- OVERPOWER ROD STOP
- OVERPOWER TRIP LOW RANGE
- POWER ABOVE PERMISSIVE P10
- POWER ABOVE PERMISSIVE P8
- POWER ABOVE PERMISSIVE P9
- DROPPED ROD ROD STOP
- DROPPED ROD BYPASS

Comment:

ER-NIS.3, Att. N-41 Defeat, step 13.3

Performance Step: 16

Verify the following status lights (Power Range N41B drawer) are extinguished:

- INSTRUMENT POWER ON
- CHANNEL ON TEST

Standard:

Verifies the following status lights (Power Range N41B drawer) are extinguished:

- INSTRUMENT POWER ON
- CHANNEL ON TEST

Comment:

ER-NIS.3, Att. N-41 Defeat, step 14

Performance Step: 17 Notify I&C to install jumpers across contacts 1-5 AND 4-8 of Power Range relays NC 41 MX (both A train and B train Protection Racks). This will remove N-41 from the logic circuit for reinstating the PR low power trip and the source ranges (P-10).

Standard: Notifies I&C to install jumpers across contacts 1-5 AND 4-8 of Power Range relays NC 41 MX (both A train and B train Protection Racks).

CUE: Acknowledge request.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 15

Performance Step: 18 Initiate an A-52.4 on N-41.

Standard: Initiates an A-52.4 on N-41 or informs CRS to initiate A-52.4.

CUE: CRS has initiated an A-52.4 for NI-41.

Comment:

ER-NIS.3, Att. N-41 Defeat, step 16

Performance Step: 19 Go to step 4.5.

Standard: Goes to step 4.5.

CUE: CRS will continue at step 4.5.

Comment:

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM G

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are an extra RO.
- Power Range channel N-41 drifted low over a period of several minutes and has been declared inoperable.
- No plant transient has occurred.
- Procedure ER-NIS.3 is being implemented.
- Reactor power is 100%.
- No other channels have been defeated.

Initiating Cue:

The CRS has directed you to remove PR N-41 from service per ER-NIS.3.
Step 4.4 Attachment N-41 Defeat.
All notifications have been made and approvals received.

Facility: Ginna | Task No.: 029-004-01-01A

Task/JPM Title: Shutdown Containment Purge | JPM No.: 2008 NRC JPM H

K/A Reference: APE 036 AA1.01 3.3 / 3.8

Examinee: | NRC Examiner:

Facility Evaluator: | Date:

Method of testing:

Simulated Performance: _____ | Actual Performance: X

Classroom _____ Simulator X Plant _____

Applicability: RO/SRO

SUBMITTED BY: Ted Coe DATE: 6/30/08
Developer

REVIEWED BY: Art Vest DATE: 6/30/08
Training Technical Reviewer

REVIEWED BY: Don Dettman DATE: 6/30/08
Operations Technical Reviewer

APPROVED BY: John Brown DATE: 6/30/08
Training Management

Task Standard:	The Containment Purge shutdown and all critical tasks evaluated as satisfactory.
Required Materials:	None
General References:	S-23.2.2, Containment Purge Procedure, Rev. 04801
Handouts:	S-23.2.2, Containment Purge Procedure, Rev. 04801
Time Critical Task:	NO
Validation Time:	5 minutes
Alternate Path:	NO
Instructor Notes:	Ensure a marked up copy of S-23.2.2, Containment Purge Procedure, Rev. 04801 is ready to give to the operator during the Initiating Cue.

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are an extra RO.
- The plant is in cold shutdown.
- A Containment Purge is in progress.
- The Refuel SRO has requested Containment Purge be secured due to a Refueling Incident.
- RP has authorized securing the purge.

Initiating Cue: The Shift Manager directs you to secure the Containment Purge per Step 6.3 of S-23.2.2.

CUE: Hand the Operator a marked up copy of S-23.2.2, Containment Purge Procedure, Rev. 04801.

SIMULATOR SETUP

For the 2008 ILT NRC Exam load I/C # 178

or

- Any cold shutdown IC.
- Remove purge flanges, MIS78.
- Place purge system in service with both fans running.
- S-23.2.2 signed off up to section 6.3.

START TIME: _____

√ = CRITICAL STEP

S-23.2.2, step 6.3.1

√ **Performance Step: 1** STOP Containment Purge Supply and Exhaust Fans "A" if running. OTHERWISE MARK this step N/A.

Standard: Switch to stop. Red lights off, Green lights on.

Comment:

S-23.2.2, step 6.3.2

√ **Performance Step: 2** STOP Containment Purge Supply and Exhaust Fans "B" if running OTHERWISE MARK this step N/A.

Standard: Switch to stop. Red lights off, Green lights on.

Comment:

S-23.2.2, step 6.3.4

√ **Performance Step: 3** CLOSE Containment Purge Supply Valve V-5869.

Standard: Switch to close. Red light off, Green light on.

Comment:

S-23.2.2, step 6.3.4

√ **Performance Step: 4** CLOSE Containment Purge Exhaust Valve V-5879.

Standard: Switch to close. Red light off, Green light on.

Comment:

S-23.2.2, step 6.3.5

Performance Step: 5 LOG information on Containment Purge Release Permit.

Standard: Logs information on Containment Purge Release Permit.

CUE: The HCO will do that.

Comment:

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM H

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are an extra RO.
- The plant is in cold shutdown.
- A Containment Purge is in progress.
- The Refuel SRO has requested Containment Purge be secured due to a Flefueling Incident.
- RP has authorized securing the purge.

Initiating Cue: The Shift Manager directs you to secure the Containment Purge per Step 6.3 of S-23.2.2.

Facility: Ginna | Task No.: 001-007-01-04A

Task/JPM Title: Startup and Parallel Rod Drive MG Set (Parallel Fails) | JPM No.: 2008 NRC JPM I

K/A Reference: 001 A4.0 8 3.7 / 3.4

Examinee: | NRC Examiner:

Facility Evaluator: | Date:

Method of testing:

Simulated Performance: X | Actual Performance: _____

Classroom _____ Simulator _____ Plant X

Applicability: RO/SRO

SUBMITTED BY: Ted Coe, Developer DATE: 6/30/08

REVIEWED BY: Art Vest, Training Technical Reviewer DATE: 6/30/08

REVIEWED BY: Don Dettman, Operations Technical Reviewer DATE: 6/30/08

APPROVED BY: John Brown, Training Management DATE: 6/30/08

Task Standard:	MG sets paralleled and all critical tasks evaluated as satisfactory.
Required Materials:	Proper Noise Protection, Hard Hat, Safety Glasses, Safety Shoes, Leather Gloves.
General References:	S-1A, Startup of Rod Drive Motor Generator Sets, Rev.18
Handouts:	S-1A, Startup of Rod Drive Motor Generator Sets, Rev.18
Time Critical Task:	NO
Validation Time:	20 minutes
Alternate Path:	YES
Instructor Notes:	Ensure Proper Noise Protection, Hard Hat, Safety Glasses, Safety Shoes and leather gloves are worn as required. Ensure a marked up copy of S-1A, Startup of Rod Drive Motor Generator Sets, Rev.18 is ready to give to the operator during the Initiating Cue.

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are an extra RO.
- Preparations for startup of Rod Control System are under way.
- The "1B" MG set is running.

Initiating Cue: The Shift Manager directs you to startup and parallel the 1A Rod Drive MG Set per S-1A section 5.3.
Simulate all activities - DO NOT MANIPULATE ANY EQUIPMENT.

CUE: Hand the Operator a marked up copy of S-1A, Startup of Rod Drive Motor Generator Sets, Rev.18.

START TIME: _____

√ = CRITICAL STEP

S-1A, step 5.3.1

Performance Step: 1 One MG set is running and carrying a steady electrical load.

Standard: Verifies 1B MG set is running. Given in initial cue.

CUE: **1B MG set is running, carrying a steady electrical load. 1A MG set is secured.**

Comment:

S-1A, step 5.3.2

Performance Step: 2 Verify remaining motor generator set ALARM BYPASS switch is in the "BYPASS" position.

Standard: Verifies 1A MG set ALARM BYPASS switch is in the "BYPASS" position.

CUE: **1A MG set ALARM BYPASS switch is in the "BYPASS" position.**

Comment:

S-1A, step 5.3.3

Performance Step: 3 Verify the remaining Motor Generator set VOLTAGE ADJUST in full counter-clockwise position.

Standard: 1A MG set VOLTAGE ADJUST is in full counter-clockwise position.

CUE: **1A MG set VOLTAGE ADJUST is in full counter-clockwise position.**

Comment:

S-1A, step 5.3.4.1

√ **Performance Step: 4** Rotate the MOTOR NO. 1A CIRCUIT BREAKER CONTROL switch to CLOSE.

Standard: Identifies the MOTOR NO. 1A CIRCUIT BREAKER CONTROL switch, and simulates rotating to CLOSE.

CUE: **Component is in desired position.**

Comment:

CUE: Motor is at full speed.

S-1A, step 5.3.4.2

√ **Performance Step: 5** WHEN motor is at full speed, THEN depress AND hold the FIELD FLASH pushbutton.

Standard: Identifies FIELD FLASH pushbutton, and generator voltage indication (OUTPUT AC VOLTAGE METER).

Simulate depressing and holding FIELD FLASH pushbutton.

CUE: Component is in desired condition.

Comment:

S-1A, step 5.3.4.3

√ **Performance Step: 6** WHEN Generator voltage has risen to > 234 volts AND is NOT increasing, THEN release the FIELD FLASH pushbutton.

Standard: Simulates FIELD FLASH pushbutton released.

CUE: Generator voltage has risen to 250 volts AND is steady.

CUE: Component is in desired condition.

Comment:

S-1A, step 5.3.4.4

√ **Performance Step: 7** Rotate the VOLTAGE ADJUST potentiometer clockwise UNTIL voltage is 260.

Standard: Rotates the VOLTAGE ADJUST potentiometer clockwise UNTIL voltage is 260.

CUE: Generator voltage has risen slowly to 260 volts.

Comment:

S-1A, step 5.3.5

Performance Step: 8 Verify FIELD CURRENT is >1.2 amps AND <4.8 amps as read on the FIELD CURRENT METER.

Standard: Identifies FIELD CURRENT METER.

CUE: FIELD CURRENT is as read.

Comment:

S-1A, step 5.3.6

Performance Step: 9 Verify FIELD CURRENT alarm has cleared. (Alarm LED is located on the FIELD CURRENT METER)

Standard: Identifies alarm LED on the FIELD CURRENT METER is out.

CUE: Alarm LED on the FIELD CURRENT METER is out.

Comment:

S-1A, step 5.3.7

Performance Step: 10 Place ALARM BYPASS switch in the "ACTIVE" position.

Standard: Identifies ALARM BYPASS switch and simulates placing in "ACTIVE".

CUE: Component is in desired position.

Comment:

S-1A, step 5.3.8

Performance Step: 11 Verify MCB annunciator C-21 (Rod Control MG Set Trouble) is extinguished.

Standard: Contacts control room on status of C-21.

CUE: C-21, (Rod Control MG Set Trouble) is extinguished.

Comment:

S-1A, step 5.3.9

√ **Performance Step: 12** Rotate the synchronize switch to ON (on the MG set being started) AND allow a few seconds for the synchronizer to warm up.

Standard: Rotates the 1A synchronize switch to ON (AND allows a few seconds for the synchronizer to warm up.

CUE: Component is in desired position.

Comment:

S-1A, step 5.3.10.1

√ **Performance Step: 13** Observe the Synchroscope (Syn/CRDMGAB) for indication when the two generators are in sync and trip the on-coming M/G Set Motor Breaker by rotating the circuit breaker control handle to the **TRIP POSITION** just after the Synchronizing Point (approximately 3 minutes after 12).

Standard: Observes the Synchroscope for indication when the two generators are in sync and trips the 1A M/G Set Motor Breaker by rotating the circuit breaker control handle to the **TRIP POSITION** just after the Synchronizing Point (approximately 3 minutes after 12).

CUE: Component is in desired position.

CUE: It has been 30 seconds and the Synchroscope indicates the two generators are not in parallel.

Comment:

S-1A, step 5.3.10.2

√ **Performance Step: 14** Should the Generator fail to parallel within 30 seconds, THEN return the synchronize switch to OFF, AND proceed with steps 5.3.1 through 5.3.10 again. N/A if generator paralleled.

Standard: Synchronize switch to OFF.
Returns to step 5.3.1.

CUE: Synchroscope indicates the two generators are not in parallel.

CUE: Component is in desired position.

Comment:

S-1A, step 5.3.1 (Start Alternate Path)

Performance Step: 15 One MG set is running and carrying a steady electrical load.

Standard: Verifies 1B MG set is running. Given in initial cue.

CUE: 1B MG set is running, carrying a steady electrical load.

Comment:

S-1A, step 5.3.2

Performance Step: 16 Verify remaining motor generator set ALARM BYPASS switch is in the "BYPASS" position.

Standard: Places 1A MG set ALARM BYPASS switch in the "BYPASS" position.

CUE: 1A MG set ALARM BYPASS switch is in the "BYPASS" position.

Comment:

S-1A, step 5.3.3

Performance Step: 17 Verify the remaining Motor Generator set VOLTAGE ADJUST in full counter-clockwise position.

Standard: Adjusts 1A MG set VOLTAGE ADJUST to the full counter-clockwise position.

CUE: 1A MG set VOLTAGE ADJUST is in full counter-clockwise position.

Comment:

S-1A, step 5.3.4.1

√ **Performance Step: 18** Rotate the MOTOR NO. 1A CIRCUIT BREAKER CONTROL switch to CLOSE.

Standard: Identifies switch, and simulate rotating to CLOSE.

CUE: Component is in desired position.

Comment:

CUE: Motor is at full speed.

S-1A, step 5.3.4.2

√ **Performance Step: 19** WHEN motor is at full speed, THEN depress AND hold the FIELD FLASH pushbutton.

Standard: Identifies FIELD FLASH pushbutton, and generator voltage indication (OUTPUT AC VOLTAGE METER).

Simulate depressing and holding FIELD FLASH pushbutton.

CUE: Component is in desired condition.

Comment:

S-1A, step 5.3.4.3

√ **Performance Step: 20** WHEN Generator voltage has risen to > 234 volts AND is NOT increasing, THEN release the FIELD FLASH pushbutton.

Standard: Simulates FIELD FLASH pushbutton released.

CUE: Generator voltage has risen to 250 volts AND is steady.

CUE: Component is in desired condition.

Comment:

S-1A, step 5.3.4.4

√ **Performance Step: 21** Rotate the VOLTAGE ADJUST potentiometer clockwise UNTIL voltage is 260.

Standard: Rotates the VOLTAGE ADJUST potentiometer clockwise UNTIL voltage is 260.

CUE: Generator voltage has risen slowly to 260 volts.

Comment:

S-1A, step 5.3.5

Performance Step: 22 Verify FIELD CURRENT is >1.2 amps AND <4.8 amps as read on the FIELD CURRENT METER.

Standard: Identifies FIELD CURRENT METER.

CUE: FIELD CURRENT is as read.

Comment:

S-1A, step 5.3.6

Performance Step: 23 Verify FIELD CURRENT alarm has cleared. (Alarm LED is located on the FIELD CURRENT METER)

Standard: Identifies alarm LED on the FIELD CURRENT METER is out.

CUE: Alarm LED on the FIELD CURRENT METER is out.

Comment:

S-1A, step 5.3.7

Performance Step: 24 Place ALARM BYPASS switch in the "ACTIVE" position.

Standard: Identifies ALARM BYPASS switch and simulates placing in "ACTIVE".

CUE: Component is in desired position.

Comment:

S-1A, step 5.3.8

Performance Step: 25 Verify MCB annunciator C-21 (Rod Control MG Set Trouble) is extinguished.

Standard: Contacts control room on status of C-21.

CUE: C-21, (Rod Control MG Set Trouble) is extinguished.

Comment:

S-1A, step 5.3.9

√ **Performance Step: 26** Rotate the synchronize switch to ON (on the MG set being started) AND allow a few seconds for the synchronizer to warm up.

Standard: Rotates the 1A synchronize switch to ON (AND allows a few seconds for the synchronizer to warm up.

CUE: Component is in desired position.

Comment:

S-1A, step 5.3.10.1

√ **Performance Step: 27** Observe the Synchroscope (Syn/CRDMGAB) for indication when the two generators are in sync and trip the on-coming M/G Set Motor Breaker by rotating the circuit breaker control handle to the **TRIP POSITION** just after the Synchronizing Point (approximately 3 minutes after 12).

Standard: Observes the Synchroscope for indication when the two generators are in sync and trips the 1A M/G Set Motor Breaker by rotating the circuit breaker control handle to the **TRIP POSITION** just after the Synchronizing Point (approximately 3 minutes after 12).

CUE: Component is in desired position.

CUE: Synchroscope indicates the two generators are in parallel.

Comment:

S-1A, step 5.3.10.2 (End Alternate Path)

Performance Step: 28 Should the Generator fail to parallel within 30 seconds, THEN return the synchronize switch to OFF, AND proceed with steps 5.3.1 through 5.3.10 again. N/A if generator paralleled.

Standard: Synchronize switch in on.
Step N/Ad.

CUE: Synchroscope indicates the two generators are in parallel.

Comment:

S-1A, step 5.3.10.3

Performance Step: 29 Turn the Synchronize switch to the OFF position.

Standard: Synchronize switch in the OFF position.

CUE: Component is in desired position.

Comment:

S-1A, step 5.3.11

Performance Step: 30 Verify ROD DRIVE M-G SET 1A (MCB center section) red status light is lit.

Standard: Calls Control Room to verify ROD DRIVE M-G SET 1A red status light is lit.

CUE: From Control Room, ROD DRIVE M-G SET 1A red status light is lit.

Comment:

S-1A, step 5.3.12

Performance Step: 31 Verify ROD DRIVE M-G SET 1B (MCB center section) red status light is lit.

Standard: Calls Control Room to verify ROD DRIVE M-G SET 1B red status light is lit.

CUE: From Control Room, ROD DRIVE M-G SET 1B red status light is lit.

Comment:

S-1A, step 5.3.13

√ **Performance Step: 32** Adjust MG1A and MG1B voltages to minimize MG CIRCULATING CURRENT (indicated on CIRCULATING CURRENT METER) with MG OUTPUT AC VOLTAGE close to 260 volts (between 250 and 270 volts) and FIELD CURRENT >1.2 amps and <4.8 amps on both MGs.

Standard: MG OUTPUT AC VOLTAGE close to 260 volts (between 250 and 270 volts) and FIELD CURRENT >1.2 amps and <4.8 amps on both MGs.
Records Circulating Current.

CUE: CIRCULATING CURRENT is as read.

Comment:

S-1A, step 5.3.14

Performance Step: 33 Verify MCB annunciator C-21 (Rod Control MG Set Trouble) is extinguished.

Standard: Contacts control room on status of C-21.

CUE: C-21, (Rod Control MG Set Trouble) is extinguished.

Comment:

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM I

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are an extra RO.
- Preparations for startup of Rod Control System are under way.
- The "1B" MG set is running.

Initiating Cue:

The Shift Manager directs you to startup and parallel the 1A Rod Drive MG Set per S-1A section 5.3.
Simulate all activities - DO NOT MANIPULATE ANY EQUIPMENT.

Facility: Ginna

Task No.: 062-029-05-04E

Task/JPM Title: Align Fire Water System to Fill the CSTs Using Condensate Transfer System

JPM No.: 2008 NRC JPM J

K/A Reference: 061 K4.01 4.1 / 4.2

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance: X

Actual Performance: _____

Classroom _____ Simulator _____ Plant X

Applicability: RO/SRO

SUBMITTED BY: Ted Coe
Developer

DATE: 6/30/08

REVIEWED BY: Art Vest
Training Technical Reviewer

DATE: 6/30/08

REVIEWED BY: Don Dettman
Operations Technical Reviewer

DATE: 6/30/08

APPROVED BY: John Brown
Training Management

DATE: 6/30/08

Task Standard:	Line up to fill CST in accordance with ER-AFW.1 section 4.3.1 and all critical tasks evaluated as satisfactory.
Required Materials:	Proper Noise Protection, Hard Hat, Safety Glasses, Safety Shoes, Gloves. (2) Spanner wrenches and Fire Hose.
General References:	ER-AFW.1,: ALTERNATE WATER SUPPLY TO THE AFW PUMPS, Rev. 03001
Handouts:	ER-AFW.1,: ALTERNATE WATER SUPPLY TO THE AFW PUMPS, Rev. 03001
Time Critical Task:	Yes
Validation Time:	11 minutes
Alternate Path:	NO
Instructor Notes:	Ensure Proper Noise Protection, Hard Hat, Safety Glasses, Safety Shoes, Gloves are worn as required. Ensure a marked up copy of ER-AFW.1, ALTERNATE WATER SUPPLY TO THE AFW PUMPS, Rev.03001 is ready to give to the operator during the Initiating Cue.

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are an extra RO.
- The Plant has experienced a loss of Offsite Power.
- CST inventory is depleted with level < 5 ft.
- The AFW pumps are providing S/G inventory.

Initiating Cue: The Shift Manager directs you to align the Fire Water System to fill the CSTs using the Condensate Transfer System in accordance with ER-AFW.1 section 4.3.1.
Simulate all activities - DO NOT MANIPULATE ANY EQUIPMENT.
This is a time critical JPM.

CUE: Hand the Operator a marked up copy of ER-AFW.1, Rev. 03001.

START TIME: _____

√ = CRITICAL STEP

ER-AFW.1, step 4.3.1.1

Performance Step: 1 Place Howell Level Controller LC-107 in manual at 50%.

Standard: Simulates requesting Control Room place Hotwell Level Controller in manual and 50% output.

CUE: **Acknowledge request and inform the examinee that the Hotwell Level controller is in manual at 50% output.**

Comment:

ER-AFW.1, step 4.3.1.2

√ **Performance Step: 2** Close or verify closed the following valves:

- CNDST XFER PUMP DISCH ISOL TO HOSE TAPS, valve 4049C
- CNDST XFER PUMP DISCH SAMPLE, valve 4049A
- CNDST XFER PUMP DISCH TO MIX BED POLISHER DI'S, valve 4050
- CNDST XFER PUMP DISCH TO CST, valve 9509C
- CNDST XFER PUMP SUCTION ISOL FROM HOTWELL, valve 4046 (in east condenser pit)
- CNDST XFER PUMP SUCTION FROM A&B CST, valve 4047
- OUTSIDE CST FILL ISOL, valve 9509D

Standard: Finds, identifies and closes or verifies closed the following valves:

1. CNDST XFER PUMP DISCH ISOL TO HOSE TAPS, valve 4049C
2. CNDST XFER PUMP DISCH SAMPLE, valve 4049A
3. CNDST XFER PUMP DISCH TO MIX BED POLISHER DI'S, valve 4050
4. CNDST XFER PUMP DISCH TO CST, valve 9509C
5. CNDST XFER PUMP SUCTION ISOL FROM HOTWELL, valve 4046 (in east condenser pit)
6. CNDST XFER PUMP SUCTION FROM A&B CST, valve 4047
7. OUTSIDE CST FILL ISOL, valve 9509D

CUE: **Component is in desired position. (for each valve operated)**

Comment:

ER-AFW.1, step 4.3.1.3

Performance Step: 3 Obtain two spanner wrenches (on handrail by Cond Transfer Pump).

Standard: Locates spanner wrenches.

CUE: You have two spanner wrenches.

Comment:

ER-AFW.1, step 4.3.1.4

Performance Step: 4 Isolate/remove and cap all temporary hoses from the connections at CNDST XFER PUMP DISCH ISOL TO HOSE TAPS, valve 4049C.

Standard: Finds and simulates removing and capping hoses connected at valve 4049C.

CUE: All hoses are disconnected and capped.

Comment:

ER-AFW.1, step 4.3.1.5

√ **Performance Step: 5** Run the hose from fire water hose reel #2 (located by Battery Room door) AND connect at CNDST XFER PUMP DISCH ISOL TO HOSE TAPS, valve 4049C.

Standard: Simulates running hose from hose reel #2 to valve 4049C.

CUE: The hose is connected between hose reel #2 and valve 4049C.

Comment:

ER-AFW.1, step 4.3.1.6 NOTE

Performance Step: 6 **NOTE: The Diesel Fire Pump should auto start while performing the following.**

Standard: Placekeeps and reads note. May inform control room.

CUE: Acknowledge report, if made.

Comment:

ER-AFW.1, step 4.3.1.6

√ **Performance Step: 7** Slowly open the following valves:
- CNDST XFER PUMP RECIRC, valve 4048
- CNDST XFER PUMP DISCH ISOL TO HOSE TAPS, valve 4049C
- TURBINE BLDG HOSE REEL #2 ISOL, valve 5178

Standard: Finds, identifies and slowly opens the following valves:
1. CNDST XFER PUMP RECIRC, valve 4048
2. CNDST XFER PUMP DISCH ISOL TO HOSE TAPS, valve 4049C
3. TURBINE BLDG HOSE REEL #2 ISOL, valve 5178

CUE: Component is in desired position. (for each valve operated)

Comment: Record TIME CRITICAL STOP TIME, must be less than 12 minutes from start time.

ER-AFW.1, step 4.3.1.7

Performance Step: 8 Fill CSTs as required.

Standard: Monitors filling CST.

CUE: No further action required.

Comment:

Terminating Cue: Evaluation on this JPM is complete.

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM J

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are an extra RO.
- The Plant has experienced a loss of Offsite Power.
- CST inventory is depleted with level < 5 ft.
- The AFW pumps are providing S/G inventory.

Initiating Cue:

The Shift Manager directs you to align the Fire Water System to fill the CSTs using the Condensate Transfer System in accordance with ER-AFW.1 section 4.3.1.
Simulate all activities - DO NOT MANIPULATE ANY EQUIPMENT.
This is a time critical JPM.

Facility:	Ginna	Task No.:	062-030-05-04A
Task/JPM Title:	Trip of Failed AC Emergency UV Relay	JPM No.:	2008 NRC JPM K
K/A Reference:	APE 077 AA1.05 3.9 / 4.0		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: X Actual Performance: ____

Classroom ____ Simulator ____ Plant X

Applicability: RO/SRO

SUBMITTED BY: Ted Coe DATE: 6/30/08
Developer

REVIEWED BY: Art Vest DATE: 6/30/08
Training Technical Reviewer

REVIEWED BY: Don Dettman DATE: 6/30/08
Operations Technical Reviewer

APPROVED BY: John Brown DATE: 6/30/08
Training Management

Task Standard:	Perform a manual trip of a relay for undervoltage protection on Bus 14 and all critical tasks evaluated as satisfactory.
Required Materials:	Proper Noise Protection, Hard Hat, Safety Glasses, Safety Shoes, Gloves. Undervoltage cabinet key #25 (the use of this key will be simulated).
General References:	ER-UV.1, TRIP OF FAILED AC EMERGENCY UV RELAY, Rev. 5
Handouts:	ER-UV.1, TRIP OF FAILED AC EMERGENCY UV RELAY, Rev. 5
Time Critical Task:	NO
Validation Time:	10 minutes
Alternate Path:	NO
Instructor Notes:	Ensure Proper Noise Protection, Hard Hat, Safety Glasses, Safety Shoes, Gloves are worn as required. Ensure a marked up copy of ER-UV.1, TRIP OF FAILED AC EMERGENCY UV RELAY, Rev. 5 is ready to give to the operator during the Initiating Cue and undervoltage cabinet key #25.

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions:

- You are an extra RO.
- The control room has received L-14, "Bus 14 Undervoltage Safeguards" annunciator.
- Procedure ER-UV.1, TRIP OF FAILED AC EMERGENCY UV RELAY is being performed and the control room staff is at step 4.2.2.

Initiating Cue: The CRS directs you to perform a manual trip of Loss of Voltage 27 D/B relay for Bus 14 per Attachment BUS 14, PART B of ER-UV.1. Simulate all activities - DO NOT MANIPULATE ANY EQUIPMENT. Bus 14, Attachment BUS 14, PART A of ER-UV.1 has **NOT** been performed.

CUE: Hand the Operator a marked up copy of ER-UV.1, TRIP OF FAILED AC EMERGENCY UV RELAY, Rev. 5 and undervoltage cabinet key #25.

START TIME: _____

√ = CRITICAL STEP

ER-UV.1, Att. Bus 14, part B, step B.1

Performance Step: 1 Verify Part A has NOT been performed.

Standard: Verifies with Part A has not been performed, given in initiating cue, may call control room or may check Part A for Bus 14.

CUE: **If requested, report as CFIS Part A for Bus 14, has not been performed. If local indications are checked: Component is in as found position.**

Comment:

ER-UV.1, Att. Bus 14, part B, step B.2

√ **Performance Step: 2** Place the TEST ENABLE key switch (S20) on the Bus 14 Auxiliary Relay Rack (bottom left hand corner) to the TEST position. (Key cannot be removed when in TEST position.)

Standard: Locates key switch and simulates inserting key and rotating key to TEST position.

CUE: **Component is in desired position.**

Comment:

ER-UV.1, Att. Bus 14, part B, step B.3

√ **Performance Step: 3** Place each individual Auxiliary Relay toggle switch to the TRIP position and verify that each Yellow UV light energizes or remains energized. (Located on the Auxiliary Relay Rack)

- Relay BX1/14 Toggle sw itch to TRIP Yellow UV Light LIT MCB Annunciator L-14 ENERGIZED
- Relay BX2/14 Toggle switch to TRIP Yellow UV Light LIT
- Relay BX3/14 Toggle switch to TRIP Yellow UV Light LIT
- Relay BX4/14 Toggle switch to TRIP Yellow UV Light LIT
- Relay BX5/14 Toggle switch to TRIP Yellow UV Light LIT
- Relay BX6/14 Toggle switch to TRIP Yellow UV Light LIT

Standard: Locates each toggle switch listed and simulates toggling switch to TRIP. Verifies UV light lit for each toggle switch operated.

- Relay BX1/14 Toggle sw itch in TRIP Yellow UV Light LIT MCB Annunciator L-14 ENERGIZED
- Relay BX2/14 Toggle switch in TRIP Yellow UV Light LIT
- Relay BX3/14 Toggle switch in TRIP Yellow UV Light LIT
- Relay BX4/14 Toggle switch in TRIP Yellow UV Light LIT
- Relay BX5/14 Toggle switch in TRIP Yellow UV Light LIT
- Relay BX6/14 Toggle switch in TRIP Yellow UV Light LIT

CUE: Component is in desired position. / Light is lit. / MCB Ann. Is energized.

Comment:

ER-UV.1, Att. Bus 14, part B, step B.4

Performance Step: 4 Return to step 4.2.3.

Standard: Contacts the control room to continue on at step 4.2.3.

CUE: Acknowledge report.

Comment:

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____ **TIME CRITICAL STOP TIME:** _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2008 NRC JPM K

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Initial Conditions:

- You are an extra RO.
- The control room has received L-14, "Bus 14 Undervoltage Safeguards" annunciator.
- Procedure ER-UV.1, TRIP OF FAILED AC EMERGENCY UV RELAY is being performed and the control room staff is at step 4.2.2.

Initiating Cue:

The CRS directs you to perform a manual trip of Loss of Voltage 27 D/B relay for Bus 14 per Attachment BUS 14, PART B of ER-UV.1. Simulate all activities - DO NOT MANIPULATE ANY EQUIPMENT. Bus 14, Attachment BUS 14, PART A of ER-UV.1 has **NOT** been performed.