

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: a

TASK NUMBER: U-085-AB-03

TASK TITLE: CRD Pump Trip at <900 psig Reactor Pressure

K/A NUMBER: 201001 A2.01

K/A RATING: RO 3.2 SRO 3.3

TASK STANDARD: Withdraws Control Rod, if withdrawn to position 48; performs a coupling check, ranges IRMs to prevent a full scram signal, and inserts a manual scram; when unable to restore CRD drive water pressure >940 psig.

LOCATION OF PERFORMANCE: Simulator

REFERENCES/PROCEDURES NEEDED: 2-OI-85 and 2-AOI-85-3

VALIDATION TIME: 15 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ___ NO ___

RESULTS: SATISFACTORY ___ UNSATISFACTORY ___

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are the Reactor Operator. Plant startup is in progress. Last completed Control Rod was 38-43 from 16 to 48, Sequence A2 Group 12. Other Operators are assigned heat up rate monitoring and Reactor Level Control.

INITIATING CUE:

The Unit Supervisor directs you to continue withdrawing controls rods for plant startup, the next control rod is 30-35. Rod Out Notch Override is authorized, complete the withdrawal of group 12 and then continue with group 13.

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

INITIAL CONDITIONS:

You are the Reactor Operator. Plant startup is in progress. Last completed Control Rod was 38-43 from 16 to 48, Sequence A2 Group 12. Other Operators are assigned heat up rate monitoring and Reactor Level Control.

INITIATING CUE:

The Unit Supervisor directs you to continue withdrawing controls rods for plant startup, the next control rod is 30-35. Rod Out Notch Override is authorized, complete the withdrawal of group 12 and then continue with group 13.

NRC Examiner Steps 1 through 5 are for single notch withdrawal, steps 6 through 15 are for continuous withdrawal.

START TIME _____

Performance Step 1:

Critical X Not Critical

6.6.3 Control Rod Notch Withdrawal

- [1] **SELECT** the desired control rod by depressing the appropriate CRD ROD SELECT pushbutton, 2-XS-85-40.

Standard:

Selects Control Rod 38-43 by depressing 38-43 pushbutton.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical _ Not Critical X

- [2] **OBSERVE** the following for selected control rod:

- CRD ROD SELECT pushbutton is brightly ILLUMINATED.
- White light on the Full Core Display ILLUMINATED.
- Rod Out Permit light ILLUMINATED.

Standard:

Observes the above indications.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 3:

Critical _ Not Critical X

- [3] **VERIFY** ROD WORTH MINIMIZER operable and LATCHED in to correct ROD GROUP, when Rod Worth Minimizer is enforcing.

Standard:

Verifies Rod Worth Minimizer responded correctly and verified Control Rod 38-43 is going from position 16 to 48.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 4:

Critical X Not Critical

- [4] **PLACE** CRD CONTROL SWITCH, 2-HS-85-48, in ROD OUT NOTCH, and **RELEASE**.
- [5] **OBSERVE** the control rod settles into the desired position and the ROD SETTLE light extinguishes.

Standard:

Withdraws control rod 38-43.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 5:

Critical ☒ Not Critical

[6] **IF** control rod is notch withdrawn to rod notch Position 48, **THEN PERFORM** control rod coupling integrity check as follows:

[6.1] **PLACE** CRD CONTROL SWITCH, 2-HS-85-48, in ROD OUT NOTCH, and **RELEASE**.

[6.2] **CHECK** control rod coupled by observing the following:

- Four rod display digital readout **AND** the full cores display digital readout **AND** background light remain illuminated.
- CONTROL ROD OVERTRAVEL annunciator, 2-XA-55-5A, Window 14, does **NOT** alarm.

[6.3] **CHECK** the control rod settles into Position 48 and the ROD SETTLE light extinguishes.

Standard:

If Control Rod is withdrawn to position 48, performs a coupling check.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 6:

Critical X Not Critical

6.6.4 Continuous Rod Withdrawal

NOTES

- 1) Continuous control rod withdrawal may be used when a control rod is to be withdrawn greater than three notches.
- 2) When in areas of high notch worth, single notch withdrawal should be used instead of continuous rod withdrawal. Information concerning high notch worth is identified by Reactor Engineering in Control Rod Coupling Integrity Check, 2-SR-3.1.3.5A.
- 3) When continuously withdrawing a control rod, the CRD Notch Override Switch is held in the Override position and the CRD Control Switch is held in the Rod Out Notch position.
 - Both switches should be released when the control rod reaches two notches prior to its intended position.
(Example: If a control rod is to be withdrawn from position 00 to position 12, the CRD Notch Override Switch and the CRD Control Switch would be used to move the control rod until reaching position 08, then both switches would be released.)
 - If the rod settles in a notch prior to the intended position, the CRD Control Switch should be used to withdraw the rod to the intended position.
(using the above example; If the control rod settles at a notch prior to the intended position of 12, the CRD Control Switch would be used to withdraw the control rod to position 12.)

[1] **SELECT** the desired control rod by depressing the appropriate CRD ROD SELECT pushbutton, 2-XS-85-40.

Standard:

Selects Control Rod 30-35 by depressing 30-35 pushbutton.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 7:

Critical _ Not Critical X

[2] **OBSERVE** the following for selected control rod:

- CRD ROD SELECT pushbutton is brightly ILLUMINATED.
- White light on the Full Core Display ILLUMINATED.
- Rod Out Permit light ILLUMINATED.

Standard:

Observes the above indications.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 8:

Critical _ Not Critical X

[3] **VERIFY** ROD WORTH MINIMIZER operable and LATCHED in to correct ROD GROUP, when Rod Worth Minimizer is enforcing.

Standard:

Verifies Rod Worth Minimizer responded correctly.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 9:

Critical _ Not Critical X

[4] **VERIFY** Control Rod is being withdrawn to a position greater than three notches.

Standard:

Verifies Control Rod 30-35 is going from position 16 to 48.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 10:

Critical _ Not Critical X

[5] **IF** withdrawing the control rod to a position other than "48", **THEN PERFORM** the following: (Otherwise N/A)

Standard:

Step is NA.

SAT__ UNSAT__ N/A __ COMMENTS:_____

Performance Step 11:

Critical X Not Critical

NOTE

When continuously withdrawing a control rod to position 48, the control rod coupling integrity check can be performed by one of the two following methods:

- 1) Coupling integrity check while maintaining the CRD Notch Override Switch in the Override position and the CRD Control Switch in the Rod Out Notch position. If this method is selected, perform Step 6.6.4[6] and N/A Step 6.6.4[7].
- 2) Coupling integrity check after releasing the CRD Notch Override Switch and the CRD Control Switch. If this method is selected, perform Step 6.6.4[7] and N/A Step 6.6.4[6].

[6] **IF** continuously withdrawing the control rod to position 48 and performing the control rod coupling integrity check in conjunction with withdrawal, **THEN PERFORM** the following: (Otherwise N/A)

[6.1] **PLACE** and **HOLD** CRD NOTCH OVERRIDE, 2-HS-85-47, in NOTCH OVERRRIDE.

[6.2] **PLACE** and **HOLD** CRD CONTROL SWITCH, 2-HS-85-48, in ROD OUT NOTCH.

Standard:

Continuously withdraws Control Rod 30-35 by holding switch, 2-HS-85-47, in Notch Override and, 2-HS-85-48, in Rod Out Notch.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Driver: At direction of Evaluator, after or during withdraw of control rod 30-35, trip operating CRD Pump.

CUE: If required have operator take the actions of 2-AOI-85-3 CRD System Failure.

Performance Step 12:

Critical ☒ Not Critical

- [6.3] **MAINTAIN** the CRD Notch Override Switch in the Override position and the CRD Control Switch in the Rod Out Notch position, with the control rod at position 48.
- [6.4] **CHECK** control rod coupled by observing the following:
- Four rod display digital readout **AND** the full core display digital readout **AND** background light remain illuminated.
 - CONTROL ROD OVERTRAVEL annunciator, 2-XA-55-5A, Window 14, does **NOT** alarm.
- [6.5] **RELEASE** both CRD NOTCH OVERRIDE, 2-HS-85-47, and CRD CONTROL SWITCH, 2-HS-85-48.
- [6.6] **CHECK** control rod settles into position 48 and ROD SETTLE light extinguishes.

Standard:

If control rod is withdrawn to position 48, performs a coupling check.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 13:

Critical X Not Critical

[7] **IF** continuously withdrawing the control rod to position 48, the control rod coupling integrity check will be performed after the CRD NOTCH OVERRIDE, 2-HS-85-47, and CRD CONTROL SWITCH, 2-HS-85-48 are to be released. **THEN PERFORM** control rod coupling integrity check as follows (otherwise N/A):

[7.1] **PLACE AND HOLD** CRD NOTCH OVERRIDE, 2-HS-85-47, in NOTCH OVERRIDE.

[7.2] **PLACE AND HOLD** CRD CONTROL SWITCH, 2-HS-85-48, in ROD OUT NOTCH.

Standard:

Continuously withdraws Control Rod 30-35 by holding switch, 2-HS-85-47, in Notch Override and, 2-HS-85-48, in Rod Out Notch.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Driver: At direction of Evaluator, after or during withdraw of control rod 30-35, trip operating CRD Pump.

CUE: If required have operator take the actions of 2-AOI-85-3 CRD System Failure.

Performance Step 14:

Critical _ Not Critical X

[7.3] **WHEN** position 48 is reached, **THEN RELEASE** CRD NOTCH OVERRIDE, 2-HS-85-47, and CRD CONTROL SWITCH, 2-HS-85-48.

[7.4] **VERIFY** control rod settles into position 48.

Standard:

Stops withdraw of Control Rod 30-35 at position 48 by releasing hand switches and verifies rod settles at position 48.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 15:

Critical X Not Critical

[7.5] **PLACE** CRD CONTROL SWITCH, 2-HS-85-48, in ROD OUT NOTCH, and **RELEASE**.

[7.6] **CHECK** control rod coupled by observing the following:

- Four rod display digital readout **AND** full core display digital readout **AND** background light will remain illuminated.
- CONTROL ROD OVERTRAVEL annunciator (2-XA-55-5A, Window 14) does **NOT** alarm.

[7.7] **CHECK** control rod settles into position 48 and ROD SETTLE light extinguishes.

Standard:

If control rod is withdrawn to position 48, performs a coupling check.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 16:

Critical X Not Critical

Operator Ranges IRMs as necessary; to maintain greater than the downscale reading of 7.5/125 and less than the upscale reading of 90/125.

Note: the High-High of 116.4/125 will produce a scram signal.

Standard:

Ranges IRMs to clear or prevent a Rod Block signal.

Note: A Full Scram signal from IRMs while withdrawing control rods will be a failure.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Driver: At direction of Evaluator, after or during withdraw of control rod 30-35, trip operating CRD Pump.

CUE: If required have operator take the actions of 2-AOI-85-3 CRD System Failure.

Performance Step 17:

Critical _ Not Critical X

4.1 Immediate Actions

- [1] **IF** operating CRD PUMP has failed **AND** the standby CRD Pump is available,
THEN PERFORM the following at Panel 2-9-5:

- [1.1] **PLACE** CRD SYSTEM FLOW CONTROL, 2-FIC-85-11, in MAN at
minimum setting.

Standard:

Places CRD System Flow Control in Manual and at Minimum setting.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 18:

Critical _ Not Critical X

- [1.2] **START** associated standby CRD Pump using one of the following:

- CRD Pump 1B, using 2-HS-85-2A
- CRD Pump 2A, using 2-HS-85-1A

Standard:

Attempts to start standby CRD Pump and may also attempt to start tripped CRD Pump.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 9:

Critical ☒ Not Critical

[2] **IF** Reactor Pressure is less than 900 PSIG and either of the following conditions exists:

- In-service CRD Pump tripped and neither CRD Pump can be started, **OR**
- Charging Water Pressure can **NOT** be restored and maintained above 940 PSIG, **THEN PERFORM** the following:

[2.1] **MANUALLY SCRAM** Reactor, **IMMEDIATELY PLACE** the reactor mode switch in the SHUTDOWN position.

Standard:

Insert a Manual Scram and places Mode Switch in Shutdown.

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: After Scram report another operator will continue in 2-AOI-100-1.

END OF TASK

STOP TIME ____

C

C

C

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: a

TASK NUMBER: U-085-AB-03

TASK TITLE: CRD Pump Trip at <900 psig Reactor Pressure

K/A NUMBER: 201001 A2.01 K/A RATING: RO 3.2 SRO 3.3

TASK STANDARD: Withdraws Control Rod, if withdrawn to position 48; performs a coupling check, ranges IRMs to prevent a full scram signal, and inserts a manual scram; when unable to restore CRD drive water pressure >940 psig.

LOCATION OF PERFORMANCE: Simulator

REFERENCES/PROCEDURES NEEDED: 3-OI-85 and 3-AOI-85-3

VALIDATION TIME: 15 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are the Reactor Operator. Plant startup is in progress. Last completed Control Rod was 38-43 from 16 to 48, Sequence A2 Group 12. Other Operators are assigned heat up rate monitoring and Reactor Level Control.

INITIATING CUE:

The Unit Supervisor directs you to continue withdrawing controls rods for plant startup, the next control rod is 30-35. Rod Out Notch Override is authorized, complete the withdrawal of group 12 and then continue with group 13.

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

INITIAL CONDITIONS:

You are the Reactor Operator. Plant startup is in progress. Last completed Control Rod was 38-43 from 16 to 48, Sequence A2 Group 12. Other Operators are assigned heat up rate monitoring and Reactor Level Control.

INITIATING CUE:

The Unit Supervisor directs you to continue withdrawing controls rods for plant startup, the next control rod is 30-35. Rod Out Notch Override is authorized, complete the withdrawal of group 12 and then continue with group 13.

NRC Examiner Steps 1 through 5 are for single notch withdrawal, steps 6 through 15 are for continuous withdrawal.

START TIME _____

Performance Step 1:

Critical X Not Critical

6.6.3 Control Rod Notch Withdrawal

- [1] **SELECT** the desired control rod by depressing the appropriate CRD ROD SELECT pushbutton, 3-XS-85-40.

Standard:

Selects Control Rod 30-35 by depressing 30-35 pushbutton.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical _ Not Critical X

- [2] **OBSERVE** the following for selected control rod:

- CRD ROD SELECT pushbutton is brightly ILLUMINATED.
- White light on the Full Core Display ILLUMINATED.
- Rod Out Permit light ILLUMINATED.

Standard:

Observes the above indications.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 3:

Critical _ Not Critical X

- [3] **VERIFY** ROD WORTH MINIMIZER operable and LATCHED in to correct ROD GROUP, when Rod Worth Minimizer is enforcing.

Standard:

Verifies Rod Worth Minimizer responded correctly and verified Control Rod 30-35 is going from position 16 to 48.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 4:

Critical X Not Critical

- [4] **PLACE** CRD CONTROL SWITCH, 3-HS-85-48, in ROD OUT NOTCH, and **RELEASE**.
- [5] **OBSERVE** the control rod settles into the desired position and the ROD SETTLE light extinguishes.

Standard:

Withdraws control rod 30-35.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Driver: At direction of Evaluator, after or during withdraw of control rod 30-35, trip operating CRD Pump.

CUE: If required, have operator take the actions of 3-AOI-85-3 CRD System Failure.

Performance Step 5:

Critical ☒ Not Critical

[6] **IF** control rod is notch withdrawn to rod notch Position 48, **THEN PERFORM** control rod coupling integrity check as follows:

[6.1] **PLACE** CRD CONTROL SWITCH, 3-HS-85-48, in ROD OUT NOTCH, and **RELEASE**.

[6.2] **CHECK** control rod coupled by observing the following:

- Four rod display digital readout **AND** the full cores display digital readout **AND** background light remain illuminated.
- CONTROL ROD OVERTRAVEL annunciator, 3-XA-55-5A, Window 14, does **NOT** alarm.

[6.3] **CHECK** the control rod settles into Position 48 and the ROD SETTLE light extinguishes.

Standard:

If Control Rod is withdrawn to position 48, performs a coupling check.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 6:

Critical X Not Critical

6.6.4 Continuous Rod Withdrawal

NOTES

- 1) Continuous control rod withdrawal may be used when a control rod is to be withdrawn greater than three notches.
- 2) When in areas of high notch worth, single notch withdrawal should be used instead of continuous rod withdrawal. Information concerning high notch worth is identified by Reactor Engineering in Control Rod Coupling Integrity Check, 3-SR-3.1.3.5A.
- 3) When continuously withdrawing a control rod, the CRD Notch Override Switch is held in the Override position and the CRD Control Switch is held in the Rod Out Notch position.
 - When the control rod reaches two notches below its intended position, both switches should be released.
 - If the rod settles in a notch below the intended position, the CRD Control Switch should be used to withdraw the rod to the intended position.
 - **EXAMPLE:** If a control rod is to be withdrawn from position 00 to position 12, the CRD Notch Override Switch and the CRD Control Switch would be used to move the control rod until reaching position 08, then both switches would be released. If the control rod settles at a notch below the intended position of 12, the CRD Control Switch would be used to withdraw the control rod to position 12.

[1] **SELECT** the desired control rod by depressing the appropriate CRD ROD SELECT pushbutton, 3-XS-85-40.

Standard:

Selects Control Rod 30-35 by depressing 30-35 pushbutton.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 7:

Critical _ Not Critical X

[2] **OBSERVE** the following for selected control rod:

- CRD ROD SELECT pushbutton is brightly ILLUMINATED.
- White light on the Full Core Display ILLUMINATED.
- Rod Out Permit light ILLUMINATED.

Standard:

Observes the above indications.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 8:

Critical _ Not Critical X

[3] **VERIFY** ROD WORTH MINIMIZER operable and LATCHED in to correct ROD GROUP, when Rod Worth Minimizer is enforcing.

Standard:

Verifies Rod Worth Minimizer responded correctly.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 9:

Critical _ Not Critical X

[4] **VERIFY** Control Rod is being withdrawn to a position greater than three notches.

Standard:

Verifies Control Rod 30-35 is going from position 16 to 48.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 10:

Critical _ Not Critical X

- [5] **IF** withdrawing the control rod to a position other than "48", **THEN PERFORM** the following: (Otherwise N/A)

Standard:

Step is NA.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 11:

Critical X Not Critical

NOTE

When continuously withdrawing a control rod to position 48, the control rod coupling integrity check can be performed by one of the two following methods:

- 1) Coupling integrity check while maintaining the CRD Notch Override Switch in the Override position and the CRD Control Switch in the Rod Out Notch position. If this method is selected, perform Step 6.6.4[6] and N/A Step 6.6.4[7].
- 2) Coupling integrity check after releasing the CRD Notch Override Switch and the CRD Control Switch. If this method is selected, perform Step 6.6.4[7] and N/A Step 6.6.4[6].

[6] **IF** continuously withdrawing the control rod to position 48 and performing the control rod coupling integrity check in conjunction with withdrawal, **THEN PERFORM** the following: (Otherwise N/A)

[6.1] **PLACE** and **HOLD** CRD NOTCH OVERRIDE, 3-HS-85-47, in NOTCH OVERRIDE.

[6.2] **PLACE** and **HOLD** CRD CONTROL SWITCH, 3-HS-85-48, in ROD OUT NOTCH.

Standard:

Continuously withdraws Control Rod 30-35 by holding switch, 3-HS-85-47, in Notch Override and, 3-HS-85-48, in Rod Out Notch.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Driver: At direction of Evaluator, after or during withdraw of control rod 30-35, trip operating CRD Pump.

CUE: If required have operator take the actions of 3-AOI-85-3 CRD System Failure.

Performance Step 12:

Critical X Not Critical

- [6.3] **MAINTAIN** the CRD Notch Override Switch in the Override position and the CRD Control Switch in the Rod Out Notch position, with the control rod at position 48.
- [6.4] **CHECK** control rod coupled by observing the following:
- Four rod display digital readout **AND** the full core display digital readout **AND** background light remain illuminated.
 - CONTROL ROD OVERTRAVEL annunciator, 3-XA-55-5A, Window 14, does **NOT** alarm.
- [6.5] **RELEASE** both CRD NOTCH OVERRIDE, 3-HS-85-47, and CRD CONTROL SWITCH, 3-HS-85-48.
- [6.6] **CHECK** control rod settles into position 48 and ROD SETTLE light extinguishes.

Standard:

If control rod is withdrawn to position 48, performs a coupling check.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 13:

Critical X Not Critical

[7] **IF** continuously withdrawing the control rod to position 48, the control rod coupling integrity check will be performed after the CRD NOTCH OVERRIDE, 3-HS-85-47, and CRD CONTROL SWITCH, 3-HS-85-48 are to be released. **THEN PERFORM** control rod coupling integrity check as follows (otherwise N/A):

[7.1] **PLACE AND HOLD** CRD NOTCH OVERRIDE, 3-HS-85-47, in NOTCH OVERRRIDE.

[7.2] **PLACE AND HOLD** CRD CONTROL SWITCH, 3-HS-85-48, in ROD OUT NOTCH.

Standard:

Continuously withdraws Control Rod 30-35 by holding switch, 3-HS-85-47, in Notch Override and 3-HS-85-48, in Rod Out Notch.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Driver: At direction of Evaluator, after or during withdraw of control rod 30-35, trip operating CRD Pump.

CUE: If required have operator take the actions of 3-AOI-85-3 CRD System Failure.

Performance Step 14:

Critical _ Not Critical X

[7.3] **WHEN** position 48 is reached, **THEN RELEASE** CRD NOTCH OVERRIDE, 3-HS-85-47, and CRD CONTROL SWITCH, 3-HS-85-48.

[7.4] **VERIFY** control rod settles into position 48.

Standard:

Stops withdraw of Control Rod 30-35 at position 48 by releasing hand switches and verifies rod settles at position 48.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 15:

Critical X Not Critical

[7.5] **PLACE** CRD CONTROL SWITCH, 3-HS-85-48, in ROD OUT NOTCH, and **RELEASE**.

[7.6] **CHECK** control rod coupled by observing the following:

- Four rod display digital readout **AND** full core display digital readout **AND** background light will remain illuminated.
- CONTROL ROD OVERTRAVEL annunciator (3-XA-55-5A, Window 14) does **NOT** alarm.

[7.7] **CHECK** control rod settles into position 48 and ROD SETTLE light extinguishes.

Standard:

If control rod is withdrawn to position 48, performs a coupling check.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 16:

Critical ☒ Not Critical

Operator Ranges IRMs as necessary; to maintain greater than the downscale reading of 7.5/125 and less than the upscale reading of 104.6/125.

Note: the High-High of 116.4/125 will produce a scram signal.

Standard:

Ranges IRMs to clear or prevent a Rod Block signal.

Note: A Full Scram signal from IRMs while withdrawing control rods will be a failure.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Driver: At direction of Evaluator, after or during withdraw of control rod 30-35, trip operating CRD Pump.

CUE: If required have operator take the actions of 3-AOI-85-3 CRD System Failure.

Performance Step 17:

Critical _ Not Critical X

4.1 Immediate Actions

- [1] **IF** operating CRD PUMP has failed **AND** the standby CRD Pump is available,
THEN PERFORM the following at Panel 3-9-5:

- [1.1] **PLACE** CRD SYSTEM FLOW CONTROL, 3-FIC-85-11, in MAN at
minimum setting.

Standard:

Places CRD System Flow Control in Manual and at Minimum setting.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 18:

Critical _ Not Critical X

- [1.2] **START** associated standby CRD Pump using one of the following:

- CRD Pump 3B, using 3-HS-85-2A
- CRD Pump 3A, using 3-HS-85-1A

Standard:

Attempts to start standby CRD Pump and may also attempt to start tripped CRD Pump.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 19:

Critical X Not Critical

[2] **IF** Reactor Pressure is less than 900 PSIG and either of the following conditions exists:

- In-service CRD Pump tripped and neither CRD Pump can be started, **OR**
- Charging Water Pressure can **NOT** be restored and maintained above 940 PSIG, **THEN PERFORM** the following:

[2.1] **MANUALLY SCRAM** Reactor, **IMMEDIATELY PLACE** the reactor mode switch in the SHUTDOWN position.

Standard:

Insert a Manual Scram and places Mode Switch in Shutdown.

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: After Scram report another operator will continue in 3-AOI-100-1.

END OF TASK

STOP TIME ____

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: b

TASK NUMBER: U-003-AL-16

TASK TITLE: RFPT Trip recovery

K/A NUMBER: 259001 A2.01

K/A RATING: RO 3.7 SRO 3.7

TASK STANDARD: RFPT Recovered and restoring Reactor Level prior to an automatic Reactor Scram on Level.

LOCATION OF PERFORMANCE: Simulator

REFERENCES/PROCEDURES NEEDED: 2-AOI-3-1

VALIDATION TIME: 15 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are a Reactor Operator. Plant startup is in progress. RFPT C has tripped and it is needed to maintain level.

INITIATING CUE:

The Unit Supervisor directs you to restore RFPT C for level control in accordance with 2-AOI-3-1 Loss of Reactor Feedwater or Reactor Water Level High/Low starting at step 8.

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

INITIAL CONDITIONS:

You are a Reactor Operator. Plant startup is in progress. RFPT C has tripped and it is needed to maintain level.

INITIATING CUE:

The Unit Supervisor directs you to restore RFPT C for level control in accordance with 2-AOI-3-1 Loss of Reactor Feedwater or Reactor Water Level High/Low starting at step 8.

START TIME _____

Performance Step 1:

*Critical ☒ Not Critical

[8] IF RFPT has tripped and needed to maintain level, THEN PERFORM the following:

[8.1] OBTAIN SRO permission to restart RFPT.

*[8.2] RESET trip by using pushbutton.

Standard:

Resets trip by depressing reset pushbutton for RFPT C

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical ☒ Not Critical

[8.3] DEPRESS RFPT Speed Control Raise/Lower switch to MANUAL GOVERNOR position.

Standard:

Depresses RFPT C Speed Control Raise/Lower switch to Manual Governor position.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 3:

Critical X Not Critical

[8.4] **PLACE** RFPT Start/Local enable switch to START.

Standard:

Places RFPT C Start/Local enable switch to Start.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 4:

Critical _ Not Critical X

[8.5] **VERIFY** RFPT accelerates to approximately 600 rpm.

Standard:

Verifies RFPT C accelerates

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 5:

Critical Not Critical X

[8.6] For Fast Recovery of RFPT, **PERFORM** the following:

[8.6.1] **OBTAIN** SRO's permission to perform fast recovery of RFPT.

[8.6.2] **VERIFY** Reactor Water Level Control PDS in AUTO and **SELECT** Column 2.

[8.6.3] **VERIFY** Reactor Water Level Control PDS level setpoint set at desired level.

Standard:

Verifies Reactor Water Level Control PDS in AUTO and set at desired level

SAT UNSAT N/A COMMENTS: _____

CUE: IF asked you have permission to perform fast recovery,
Operator may proceed to step 8.7

Performance Step 6:

Critical X Not Critical

[8.6.4] **PULL** individual RFPT Speed Control Raise/Lower switch to FEEDWATER CONTROL position and **CHECK** amber light at switch is extinguished.

Standard:

Pulls RFPT C Speed Control Raise/Lower switch to Feedwater Control position

SAT UNSAT N/A COMMENTS: _____

Performance Step 7:

Critical X Not Critical

[8.6.5] **PLACE** individual RFPT Speed Control PDS in AUTO.

Standard:

Places RFPT C Speed Control PDS in Auto and verifies speed increasing and Reactor level maintained

SAT__ UNSAT__ N/A __ COMMENTS:_____

Performance Step 8:

Critical X Not Critical

[8.7] For Slow Recovery of RFPT in MANUAL GOVERNOR, **RAISE** RFPT speed using RFPT Speed Control Raise/Lower switch until desired flow is obtained.

Standard:

Raises speed of RFPT C using RFPT Speed Control switch and restores and maintains Reactor Level

SAT__ UNSAT__ N/A __ COMMENTS:_____

Performance Step 9:

Critical _ Not Critical X

[8.8] For Slow Recovery of RFPT using individual RFPT Speed Control PDS,
PERFORM the following:

[8.8.1] **VERIFY** Column 3 selected and MANUAL selected on individual
RFPT speed Control PDS.

Standard:

Verifies Column 3 selected and Manual selected on RFPT C speed Control PDS

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 10:

Critical X Not Critical

[8.8.2] **PULL** individual RFPT Speed Control Raise/Lower switch to
FEEDWATER CONTROL position.

Standard:

Pulls RFPT C Speed Control Raise/Lower switch to Feedwater Control position.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 11:

Critical ☒ Not Critical

[8.8.3] **RAISE** RFPT speed using Ramp Up/Ramp Down pushbuttons to obtain desired flow.

Standard:

Raises speed of RFPT C using Ramp Up/Ramp Down pushbuttons and restores and maintains Reactor Level

SAT__ UNSAT__ N/A __ COMMENTS: _____

END OF TASK

STOP TIME ____

C.

C.

C.

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: b

TASK NUMBER: U-003-AL-16

TASK TITLE: RFPT Trip recovery

K/A NUMBER: 259001 A2.01 K/A RATING: RO 3.7 SRO 3.7

TASK STANDARD: RFPT Recovered and restoring Reactor Level prior to an automatic Reactor Scram on Level.

LOCATION OF PERFORMANCE: Simulator

REFERENCES/PROCEDURES NEEDED: 3-AOI-3-1

VALIDATION TIME: 15 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ____ NO ____

RESULTS: SATISFACTORY ____ UNSATISFACTORY ____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are a Reactor Operator. Plant startup is in progress. RFPT C has tripped and it is needed to maintain level.

INITIATING CUE:

The Unit Supervisor directs you to restore RFPT C for level control in accordance with 3-AOI-3-1 Loss of Reactor Feedwater or Reactor Water Level High/Low starting at step 11.

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

INITIAL CONDITIONS:

You are a Reactor Operator. Plant startup is in progress. RFPT C has tripped and it is needed to maintain level.

INITIATING CUE:

The Unit Supervisor directs you to restore RFPT C for level control in accordance with 3-AOI-3-1 Loss of Reactor Feedwater or Reactor Water Level High/Low starting at step 11.

START TIME _____

Performance Step 1:

* Critical ☒ Not Critical

[11] IF RFPT has tripped and it is needed to maintain level, THEN PERFORM the following:

[11.1] OBTAIN Unit Supervisor permission to restart RFPT.

*[11.2] RESET trip by using pushbutton.

Standard:

Resets trip by depressing reset pushbutton for RFPT C

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical ☒ Not Critical

[11.3] DEPRESS RFPT Speed Control Raise/Lower switch to MANUAL GOVERNOR position.

Standard:

Depresses RFPT C Speed Control Raise/Lower switch to Manual Governor position.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 3:

Critical X Not Critical

[11.4] **PLACE** RFPT Start/Local enable switch to START.

Standard:

Places RFPT C Start/Local enable switch to Start.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 4:

Critical _ Not Critical X

[11.5] **VERIFY** RFPT accelerates to approximately 600 rpm.

Standard:

Verifies RFPT C accelerates

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 5:

Critical _ Not Critical X

[11.6] **IF** Fast Recovery of RFPT is desired, **THEN PERFORM** the following:

- [11.6.1] **OBTAIN** Unit Supervisor's permission to perform fast recovery of RFPT.
- [11.6.2] **VERIFY** Reactor Water Level Control PDS in AUTO and **SELECT** Column 2.
- [11.6.3] **VERIFY** Reactor Water Level Control PDS level setpoint set at desired level.

Standard:

Verifies Reactor Water Level Control PDS in AUTO and set at desired level

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: IF asked you have permission to perform fast recovery,
Operator may proceed to step 11.7

Performance Step 6:

Critical X Not Critical

- [11.6.4] **PULL** individual RFPT Speed Control Raise/Lower switch to FEEDWATER CONTROL position **AND VERIFY** amber light at switch is extinguished.

Standard:

Pulls RFPT C Speed Control Raise/Lower switch to Feedwater Control position

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 7:

Critical X Not Critical

[11.6.5] **PLACE** individual RFPT Speed Control PDS in AUTO.

Standard:

Places RFPT A Speed Control PDS in Auto and verifies speed increasing and Reactor level maintained

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 8:

Critical X Not Critical

[11.7] **IF** Slow Recovery of RFPT in MANUAL GOVERNOR is desired, **THEN**
RAISE RFPT speed using RFPT Speed Control Raise/Lower switch until desired flow is obtained.

Standard:

Raises speed of RFPT C using RFPT Speed Control switch and restores and maintains Reactor Level

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 9:

Critical ☐ Not Critical ☒

[11.8] **IF** Slow Recovery of RFPT using individual RFPT Speed Control PDS is desired,
THEN PERFORM the following:

[11.8.1] **VERIFY** Column 3 selected and MANUAL selected on individual
RFPT speed Control PDS.

Standard:

Verifies Column 3 selected and Manual selected on RFPT C speed Control PDS.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 10:

Critical ☒ Not Critical ☐

[11.8.2] **PULL** individual RFPT Speed Control Raise/Lower switch to
FEEDWATER CONTROL position.

Standard:

Pulls RFPT C Speed Control Raise/Lower switch to Feedwater Control position.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 11:

Critical ☒ Not Critical

[11.8.3] **RAISE** RFPT speed using Ramp Up/Ramp Down pushbuttons to obtain desired flow.

Standard:

Raises speed of RFPT C using Ramp Up/Ramp Down pushbuttons and restores and maintains Reactor Level

SAT__ UNSAT__ N/A __ COMMENTS: _____

END OF TASK

STOP TIME ____

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: c

TASK NUMBER: U-000-EM-50

TASK TITLE: 2-EOI APPENDIX-11D Alternate RPV Pressure control Systems-Main
Steamline Drains and/or Turbine and RFPT Drains

K/A NUMBER: 239001 A1.08 K/A RATING: RO 3.8 SRO 3.8

TASK STANDARD: Establish alternate pressure control with Main Steamline drains, Turbine and
RFPT drains

LOCATION OF PERFORMANCE: Simulator

REFERENCES/PROCEDURES NEEDED: 2-EOI APPENDIX-11D

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are a Unit 2 Operator. Unit 2 reactor has scrammed. Emergency depressurization is not required but alternate means of pressure control is required. Turbine Bypass valves are NOT available. EOI-1 has been followed to RC/P-11. Another Operator is assigned Reactor Level Control.

INITIATING CUE:

The Unit Supervisor directs you to establish alternate pressure control as directed by 2-EOI Appendix 11D Alternate RPV Pressure control Systems-Main Steamline Drains and/or Turbine and RFPT Drains and maintain Reactor Pressure 600 to 1000 psig.

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

INITIAL CONDITIONS:

You are a Unit 2 Operator. Unit 2 reactor has scrammed. Emergency depressurization is not required but alternate means of pressure control is required. Turbine Bypass valves are NOT available. EOI-1 has been followed to RC/P-11. Another Operator is assigned Reactor Level Control.

INITIATING CUE:

The Unit Supervisor directs you to establish alternate pressure control as directed by 2-EOI Appendix 11D Alternate RPV Pressure control Systems-Main Steamline Drains and/or Turbine and RFPT Drains and maintain Reactor Pressure 600 to 1000 psig.

START TIME _____

Performance Step 1:

Critical _ Not Critical X

1. IF BOTH of the following exist:

- Emergency RPV Depressurization is required,
- AND
- Group 1 Isolation Signal exists,

THEN **EXIT** this procedure and **ENTER** EOI Appendix 11H.

Standard:

Given in initial conditions, does not exit procedure

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical _ Not Critical X

2. **VERIFY** hotwell pressure below -7 in. Hg.

Standard:

Verifies hotwell pressure less than -7 in. Hg.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 3:

Critical _ Not Critical X

3. **CONTROL** RPV pressure with Main Steam line drains as follows:

a. **VERIFY** PCIS reset.

Standard:

Verifies PCIS Reset

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 4:

Critical X Not Critical

b. **OPEN** the following valves (Panel 9-3):

- 2-FCV-1-55, MN STM LINE DRAIN INBD ISOLATION VLV
- 2-FCV-1-56, MN STM LINE DRAIN OUTBD ISOLATION VLV
- 2-FCV-1-58, UPSTREAM MSL DRAIN TO CONDENSER

Standard:

Opens 2-FCV-1-55, 2-FCV-1-56, and 2-FCV-1-58

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 5:

Critical X Not Critical

4. **THROTTLE** 2-FCV-1-59, DOWNSTREAM MSL DRAIN TO CONDENSER,
as necessary to control cooldown rate.

Standard:

Throttles 2-FCV-1-59 open and control cooldown rate

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: If necessary when 2-FCV-1-59 is full open, Direct Operator that "Additional
RPV Pressure Control is necessary"

Performance Step 6:

Critical X Not Critical

5. IF At least one main steam line is open AND
EITHER of the following exist:

Turbine bypass valves are NOT available,

OR

Additional RPV pressure control is necessary,

THEN **CONTROL** RPV pressure with Main Turbine and RFPT drains as follows:

- a. **OPEN** the following Main Turbine Drain valves (Panel 9-7):

- 2-FCV-6-100, STOP VALVE 1 BEFORE SEAT DR VLV
- 2-FCV-6-101, STOP VALVE 2 BEFORE SEAT DR VLV
- 2-FCV-6-102, STOP VALVE 3 BEFORE SEAT DR VLV
- 2-FCV-6-103, STOP VALVE 4 BEFORE SEAT DR VLV

Standard:

Opens 2-FCV-6-100, 2-FCV-6-101, 2-FCV-6-102, and 2-FCV-6-103

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 7:

Critical ☒ Not Critical

b. **OPEN** the following RFPT drain valves (Panel 9-6):

- 2-FCV-6-122, RFPT 2A HP STOP VLV ABOVE SEAT DR
- 2-FCV-6-127, RFPT 2B HP STOP VLV ABOVE SEAT DR
- 2-FCV-6-132, RFPT 2C HP STOP VLV ABOVE SEAT DR

Standard:

Opens 2-FCV-6-122, 2-FCV-6-127, and 2-FCV-6-132

SAT__ UNSAT__ N/A __ COMMENTS: _____

END OF TASK

STOP TIME _____

C

C

C

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: c

TASK NUMBER: U-000-EM-50

TASK TITLE: 2-EOI APPENDIX-11D Alternate RPV Pressure control Systems-Main
Steamline Drains and/or Turbine and RFPT Drains

K/A NUMBER: 239001 A1.08 K/A RATING: RO 3.8 SRO 3.8

TASK STANDARD: Establish alternate pressure control with Main Steamline drains, Turbine and
RFPT drains

LOCATION OF PERFORMANCE: Simulator

REFERENCES/PROCEDURES NEEDED: 2-EOI APPENDIX-11D

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are a Unit 3 Operator. Unit 3 reactor has scrammed. Emergency depressurization is not required but alternate means of pressure control is required. Turbine Bypass valves are NOT available. EOI-1 has been followed to RC/P-11. Another Operator is assigned Reactor Level Control.

INITIATING CUE:

The Unit Supervisor directs you to establish alternate pressure control as directed by 3-EOI Appendix-11D Alternate RPV Pressure Control Systems Main Steam Line Drains and/or Turbine and RFPT Drains and maintain Reactor Pressure 600 to 1000 psig.

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

INITIAL CONDITIONS:

You are a Unit 3 Operator. Unit 3 reactor has scrammed. Emergency depressurization is not required but alternate means of pressure control is required. Turbine Bypass valves are NOT available. EOI-1 has been followed to RC/P-11. Another Operator is assigned Reactor Level Control.

INITIATING CUE:

The Unit Supervisor directs you to establish alternate pressure control as directed by 3-EOI Appendix-11D Alternate RPV Pressure Control Systems Main Steam Line Drains and/or Turbine and RFPT Drains and maintain Reactor Pressure 600 to 1000 psig.

START TIME _____

Performance Step 1:

Critical _ Not Critical X

1. IF BOTH of the following exist:

- Emergency RPV Depressurization is required,
- AND
- Group 1 Isolation Signal exists,

THEN **EXIT** this procedure and **ENTER** EOI Appendix 11H.

Standard:

Given in initial conditions, does not exit procedure

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical _ Not Critical X

2. **VERIFY** hotwell pressure below -7 in. Hg.

Standard:

Verifies hotwell pressure less than -7 in. Hg.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 3:

Critical _ Not Critical X

3. **CONTROL** RPV pressure with Main Steam line drains as follows:

a. **VERIFY** PCIS reset.

Standard:

Verifies PCIS Reset

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 4:

Critical X Not Critical

b. **OPEN** the following valves (Panel 3-9-3):

- 3-FCV-1-55, MN STM LINE DRAIN INBD ISOLATION VLV
- 3-FCV-1-56, MN STM LINE DRAIN OUTBD ISOLATION VLV
- 3-FCV-1-58, UPSTREAM MSL DRAIN TO CONDENSER

Standard:

Opens 3-FCV-1-55, 3-FCV-1-56, and 3-FCV-1-58

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 5:

Critical X Not Critical

4. **THROTTLE 3-FCV-1-59, DOWNSTREAM MSL DRAIN TO CONDENSER,**
as necessary to control cooldown rate.

Standard:

Throttles 3-FCV-1-59 open and control cooldown rate

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: If necessary when 3-FCV-1-59 is full open, Direct Operator that "Additional
RPV Pressure Control is necessary"

Performance Step 6:

Critical X Not Critical

5. IF At least one main steam line is open AND
EITHER of the following exist:

Turbine bypass valves are NOT available,

OR

Additional RPV pressure control is necessary,

THEN **CONTROL** RPV pressure with Main Turbine and RFPT drains as follows:

- a. **OPEN** the following Main Turbine Drain valves (Panel 3-9-7):

- 3-FCV-6-100, STOP VALVE 1 BEFORE SEAT DR VLV
- 3-FCV-6-101, STOP VALVE 2 BEFORE SEAT DR VLV
- 3-FCV-6-102, STOP VALVE 3 BEFORE SEAT DR VLV
- 3-FCV-6-103, STOP VALVE 4 BEFORE SEAT DR VLV

Standard:

Opens 3-FCV-6-100, 3-FCV-6-101, 3-FCV-6-102, and 3-FCV-6-103

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 7:

Critical X Not Critical

b. **OPEN** the following RFPT drain valves (Panel 3-9-6):

- 3-FCV-6-122, RFPT 3A HP STOP VLV ABOVE SEAT DR
- 3-FCV-6-127, RFPT 3B HP STOP VLV ABOVE SEAT DR
- 3-FCV-6-132, RFPT 3C HP STOP VLV ABOVE SEAT DR

Standard:

Opens 3-FCV-6-122, 3-FCV-6-127, and 3-FCV-6-132

SAT__ UNSAT__ N/A__ COMMENTS:_____

END OF TASK

STOP TIME_____

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: d

TASK NUMBER: U-000-EM-50

TASK TITLE: EOI APPENDIX-8F – Restore Reactor and Refuel Zone Ventilation Fans
following a Group 6 Isolation

K/A NUMBER: 295032 EA1 .03 K/A RATING: RO 3.7 SRO 3.7

TASK STANDARD: Restore Reactor and Refuel Zone Ventilation Fans
following a Group 6 Isolation

PERFORMANCE LOCATION: Simulator

REFERENCES/PROCEDURES NEEDED: 3-EOI Appendix-8F

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED:

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ___ NO ___

RESULTS: SATISFACTORY ___ UNSATISFACTORY ___

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are an Operator. Unit 3 reactor has scrammed and a Group 6 isolation has occurred from RPV low level. EOI-1 has been entered and followed to RC/P-8. The US wants the reactor and refueling zone ventilation systems restored. No other Group 6 isolation signals exist. Appendix 8E, Bypassing Group 6 RPV Low Level and High Drywell Pressure Isolation Interlocks, has been completed.

INITIATING CUE:

The Unit Supervisor directs you to restore reactor and refuel zone ventilation as directed by 3-EOI Appendix-8F. SGTS is required for Operation and fast speed operation is desired for Reactor and Refuel Zone Ventilation.

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

INITIAL CONDITIONS:

You are an Operator. Unit 3 reactor has scrammed and a Group 6 isolation has occurred from RPV low level. EOI-1 has been entered and followed to RC/P-8. The US wants the reactor and refueling zone ventilation systems restored. No other Group 6 isolation signals exist. Appendix 8E, Bypassing Group 6 RPV Low Level and High Drywell Pressure Isolation Interlocks, has been completed.

INITIATING CUE:

The Unit Supervisor directs you to restore reactor and refuel zone ventilation as directed by 3-EOI Appendix-8F. SGTS is required for Operation and fast speed operation is desired for Reactor and Refuel Zone Ventilation.

START TIME _____

Performance Step 1:

Critical ☒ Not Critical

1. **VERIFY** PCIS Reset.

Standard:

Resets PCIS

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 2:

Critical ☒ Not Critical

2. **PLACE** Refuel Zone Ventilation in service as follows (Panel 3-9-25):

- a. **VERIFY** 3-HS-64-3A, REFUEL ZONE FANS AND DAMPERS, control switch is in OFF.

Standard:

Places 3-HS-64-3A in the Off position.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 3:

Critical ☒ Not Critical

- b. **PLACE** 3-HS-64-3A, REFUEL ZONE FANS AND DAMPERS, control switch to SLOW A (SLOW B).

Standard:

Places 3-HS-64-3A to SLOW A or SLOW B position.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 4:

Critical _ Not Critical X

- c. **CHECK** two SPLY/EXH A(B) green lights above 3-HS-64-3A, REFUEL ZONE FANS AND DAMPERS, control switch extinguish and two SPLY/EXH A(B) red lights illuminate.

Standard:

Verifies proper combination of lights On and Off above 3-HS-64-3A.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 5:

Critical _ Not Critical X

- d. **VERIFY OPEN** the following dampers:

- 3-FCO-64-5, REFUEL ZONE SPLY OUTBD ISOL DMPR
- 3-FCO-64-6, REFUEL ZONE SPLY INBD ISOL DMPR
- 3-FCO-64-9, REFUEL ZONE EXH OUTBD ISOL DMPR
- 3-FCO-64-10, REFUEL ZONE EXH INBD ISOL DMPR

Standard:

Verifies Red position indicating lamps On for dampers listed above

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 6:

Critical X Not Critical

3. **PLACE** Reactor Zone Ventilation in service as follows (Panel 3-9-25):

- a. **VERIFY** 3-HS-64-11A, REACTOR ZONE FANS AND DAMPERS,
control switch is in OFF.

Standard:

Places 3-HS-64-11A in the Off position.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 7:

Critical X Not Critical

- b. **PLACE** 3-HS-64-11A, REACTOR ZONE FANS AND DAMPERS,
control switch in SLOW A (SLOW B).

Standard:

Places 3-HS-64-11A to SLOW A or SLOW B position.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 8:

Critical _ Not Critical X

- c. **CHECK** two SPLY/EXH A(B) green lights above 3-HS-64-11A, REACTOR ZONE FANS AND DAMPERS, control switch extinguish and two SPLY/EXH A(B) red lights illuminate.

Standard:

Verifies proper combination of lights On and Off above 3-HS-64-3A.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 9:

Critical _ Not Critical X

- d. **VERIFY OPEN** the following dampers:

- 3-FCO-64-13, REACTOR ZONE SPLY OUTBD ISOL DMPR
- 3-FCO-64-14, REACTOR ZONE SPLY INBD ISOL DMPR
- 3-FCO-64-42, REACTOR ZONE EXH INBD ISOL DMPR
- 3-FCO-64-43, REACTOR ZONE EXH OUTBD ISOL DMPR

Standard:

Verifies Red position indicating lamps On for dampers listed above

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 10:

Critical _ Not Critical X

4. IF SGTS is NOT required for operation, THEN **SECURE** SGTS as follows:

Standard:

Given in Initial conditions that SGTS is required.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 11:

Critical _ Not Critical X

5. IF Reactor Zone Fan fast speed is desired following 5 minutes of slow speed operation, THEN **PLACE** 3-HS-64-11A, REACTOR ZONE FANS AND DAMPERS, control switch in FAST A (FAST B).

Standard:

Places 3-HS-64-11A in either FAST A or FAST B position in accordance with which set of fans were started in slow

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: Five Minutes has elapsed

Performance Step 12:

Critical _ Not Critical X

6. IF Refuel Zone Fan fast speed is desired following 5 minutes of slow speed operation, THEN **PLACE** 3-HS-64-3A, REFUEL ZONE FANS AND DAMPERS, control switch in FAST A (FAST B).

Standard:

Places 3-HS-64-3A in either FAST A or FAST B position in accordance with which set of fans were started in slow.

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: Five Minutes has elapsed

END OF TASK

STOP TIME: _____

C

C

C

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: d

TASK NUMBER: U-000-EM-50

TASK TITLE: EOI APPENDIX-8F – Restore Reactor and Refuel Zone Ventilation Fans
following a Group 6 Isolation

K/A NUMBER: 295032 EA1 .03 K/A RATING: RO 3.7 SRO 3.7

TASK STANDARD: Restore Reactor and Refuel Zone Ventilation Fans
following a Group 6 Isolation

PERFORMANCE LOCATION: Simulator

REFERENCES/PROCEDURES NEEDED: 2-EOI Appendix-8F

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED:

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____

EXAMINER

INITIAL CONDITIONS:

You are an Operator. Unit 2 reactor has scrammed and a Group 6 isolation has occurred from RPV low level. EOI-1 has been entered and followed to RC/P-8. The US wants the reactor and refueling zone ventilation systems restored. No other Group 6 isolation signals exist. Appendix 8E, Bypassing Group 6 RPV Low Level and High Drywell Pressure Isolation Interlocks, has been completed.

INITIATING CUE:

The Unit Supervisor directs you to restore reactor and refuel zone ventilation as directed by 2-EOI Appendix-8F. SGTS is required for Operation and fast speed operation is desired for Reactor and Refuel Zone Ventilation.

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

INITIAL CONDITIONS:

You are an Operator. Unit 2 reactor has scrammed and a Group 6 isolation has occurred from RPV low level. EOI-1 has been entered and followed to RC/P-8. The US wants the reactor and refueling zone ventilation systems restored. No other Group 6 isolation signals exist. Appendix 8E, Bypassing Group 6 RPV Low Level and High Drywell Pressure Isolation Interlocks, has been completed.

INITIATING CUE:

The Unit Supervisor directs you to restore reactor and refuel zone ventilation as directed by 2-EOI Appendix-8F. SGTS is required for Operation and fast speed operation is desired for Reactor and Refuel Zone Ventilation.

START TIME _____

Performance Step 1:

Critical X Not Critical

1. **VERIFY** PCIS Reset.

Standard:

Resets PCIS

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 2:

Critical X Not Critical

2. **PLACE** Refuel Zone Ventilation in service as follows (Panel 2-9-25):

a. **VERIFY** 2-HS-64-3A, REFUEL ZONE FANS AND DAMPERS, control switch is in OFF.

Standard:

Places 2-HS-64-3A in the Off position.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 3:

Critical X Not Critical

b. **PLACE** 2-HS-64-3A, REFUEL ZONE FANS AND DAMPERS, control switch to SLOW A (SLOW B).

Standard:

Places 2-HS-64-3A to SLOW A or SLOW B position.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 4:

Critical _ Not Critical X

- c. **CHECK** two SPLY/EXH A(B) green lights above 2-HS-64-3A, REFUEL ZONE FANS AND DAMPERS, control switch extinguish and two SPLY/EXH A(B) red lights illuminate.

Standard:

Verifies proper combination of lights On and Off above 2-HS-64-3A.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 5:

Critical _ Not Critical X

- d. **VERIFY OPEN** the following dampers:

- 2-FCO-64-5, REFUEL ZONE SPLY OUTBD ISOL DMPR
- 2-FCO-64-6, REFUEL ZONE SPLY INBD ISOL DMPR
- 2-FCO-64-9, REFUEL ZONE EXH OUTBD ISOL DMPR
- 2-FCO-64-10, REFUEL ZONE EXH INBD ISOL DMPR

Standard:

Verifies Red position indicating lamps On for dampers listed above

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 6:

Critical ☒ Not Critical

3. **PLACE** Reactor Zone Ventilation in service as follows (Panel 2-9-25):

- a. **VERIFY** 2-HS-64-11A, REACTOR ZONE FANS AND DAMPERS,
control switch is in OFF.

Standard:

Places 2-HS-64-11A in the Off position.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 7:

Critical ☒ Not Critical

- b. **PLACE** 2-HS-64-11A, REACTOR ZONE FANS AND DAMPERS,
control switch in SLOW A (SLOW B).

Standard:

Places 2-HS-64-11A to SLOW A or SLOW B position.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 8:

Critical _ Not Critical X

- c. **CHECK** two SPLY/EXH A(B) green lights above 2-HS-64-11A, REACTOR ZONE FANS AND DAMPERS, control switch extinguish and two SPLY/EXH A(B) red lights illuminate.

Standard:

Verifies proper combination of lights On and Off above 2-HS-64-3A.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 9:

Critical _ Not Critical X

- d. **VERIFY OPEN** the following dampers:

- 2-FCO-64-13, REACTOR ZONE SPLY OUTBD ISOL DMPR
- 2-FCO-64-14, REACTOR ZONE SPLY INBD ISOL DMPR
- 2-FCO-64-42, REACTOR ZONE EXH INBD ISOL DMPR
- 2-FCO-64-43, REACTOR ZONE EXH OUTBD ISOL DMPR

Standard:

Verifies Red position indicating lamps On for dampers listed above

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 10:

Critical _ Not Critical X

4. IF SGTS is NOT required for operation, THEN **SECURE** SGTS as follows:

Standard:

Given in Initial conditions that SGTS is required.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 11:

Critical _ Not Critical X

5. IF Reactor Zone Fan fast speed is desired following 5 minutes of slow speed operation, THEN **PLACE** 2-HS-64-11A, REACTOR ZONE FANS AND DAMPERS, control switch in FAST A (FAST B).

Standard:

Places 2-HS-64-11A in either FAST A or FAST B position in accordance with which set of fans were started in slow

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: Five Minutes has elapsed

Performance Step 12:

Critical _ Not Critical X

6. IF Refuel Zone Fan fast speed is desired following 5 minutes of slow speed operation, THEN **PLACE** 2-HS-64-3A, REFUEL ZONE FANS AND DAMPERS, control switch in FAST A (FAST B).

Standard:

Places 2-HS-64-3A in either FAST A or FAST B position in accordance with which set of fans were started in slow.

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: Five Minutes has elapsed

END OF TASK

STOP TIME: _____

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: e

TASK NUMBER: U-000-SS-25

TASK TITLE: Energize 4 KV SD BDs A, C, and D from Unit 3 DGs

K/A NUMBER: 264000 A4.04 K/A RATING: RO 3.7 SRO 3.7

TASK STANDARD: 4 KV SD BDs A and C energized from Unit 3 DGs during a Unit 1 and 2 Diesel Generator Building Fire. DG D Emergency Shutdown due to Low Lube Oil Pressure

LOCATION OF PERFORMANCE: Simulator

REFERENCES/PROCEDURES NEEDED: 0-SSI-20

VALIDATION TIME: 15 minutes

MAX. TIME ALLOWED: 20 minutes

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ___ NO ___

RESULTS: SATISFACTORY ___ UNSATISFACTORY ___

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are an Operator on Unit 3, the plant is operating in 0-SSI-20 Unit 1 and 2 Diesel Generator Building fire. All three units have been scrammed. An Assistant Unit Operator has been dispatched to the DGs.

INITIATING CUE:

The Unit Supervisor directs you to complete attachment 6, Unit 3 Panel 9-23 Actions of 0-SSI-20.

Time Critical

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

INITIAL CONDITIONS:

You are an Operator on Unit 3, the plant is operating in 0-SSI-20 Unit 1 and 2 Diesel Generator Building fire. All three units have been scrambled. An Assistant Unit Operator has been dispatched to the DGs.

INITIATING CUE:

The Unit Supervisor directs you to complete attachment 6, Unit 3 Panel 9-23 Actions of 0-SSI-20.

Time Critical

START TIME_____

Performance Step 1:

Critical ☒ Not Critical

1.0 ENERGIZING 4KV SHUTDOWN BOARDS A, C, AND D FROM UNIT 3 DIESEL GENERATORS 3A, 3C, AND 3D USING UNIT INTERTIE

(20 Min)

NOTE

The following steps will energize 4KV Shutdown Boards A, C, and D from Unit 3 Diesel Generators as the only source.

- [1] Notification has been received from the Unit 2 Unit Supervisor to perform this section.
- [2] **PROCEED TO** Panel 3-9-23, AND **PERFORM** the following to align Shutdown Board 3EA:
- [2.1] **VERIFY** DG 3A CONTROL switch, 3-HS-82-3A/1A, in START.

Standard:

Starts DG 3A

SAT__ UNSAT__ N/A __COMMENTS:_____

Performance Step 2:

Critical X Not Critical

[2.2] **VERIFY** 4KV SD BD 3EA AUTO TO MANUAL TRIP pushbutton,
3-HS-211-3EA, in MANUAL.

Standard:

Depresses 3-HS-211-3EA

SAT__ UNSAT__ N/A__ COMMENTS:_____

Performance Step 3:

Critical X Not Critical

[2.3] **VERIFY** 4KV SD BD 3EA NORM FDR BKR 1334, 3-HS-211-3EA/7A, in
TRIP.

Standard:

Trips Normal Feeder Breaker 1334

SAT__ UNSAT__ N/A__ COMMENTS:_____

Performance Step 4:

Critical _ Not Critical X

[2.4] **VERIFY** DG 3A BKR 1838 CLOSED.

Standard:

Verifies DG Breaker 1838 closes

SAT__ UNSAT__ N/A__ COMMENTS:_____

Performance Step 5:

Critical X Not Critical

- [2.5] **PLACE** 4KV SD BD 3EA EMER FDR BKR 1844, 3-HS-211-3EA/1A, in CLOSE.

Standard:

Closes Emergency Feeder Breaker 1844

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 6:

Critical X Not Critical

- [3] **PERFORM** the following to align 4KV Shutdown Board 3EC:

- [3.1] **VERIFY** DG 3C CONTROL switch, 3-HS-82-3C/1A, in START.

Standard:

Starts DG 3C

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 7:

Critical X Not Critical

- [3.2] **VERIFY** 4KV SD BD 3EC AUTO TO MANUAL TRIP pushbutton, 3-HS-211-3EC, in MANUAL.

Standard:

Depresses 3-HS-211-3EC

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 8:

Critical ☒ Not Critical

[3.3] **VERIFY** 4KV SD BD 3EC NORM FDR BKR 1338, 3-HS-211-3EC/12A, in
TRIP.

Standard:

Trips Normal Feeder Breaker 1338

SAT__ UNSAT__ N/A__ COMMENTS:_____

Performance Step 9:

Critical _ Not Critical ☒

[3.4] **VERIFY** DG 3C BKR 1832 CLOSED.

Standard:

Verifies DG Breaker 1832 closes

SAT__ UNSAT__ N/A__ COMMENTS:_____

Performance Step 10:

Critical ☒ Not Critical

[3.5] **PLACE** 4KV SD BD 3EC EMER FDR BKR 1834, 3-HS-211-3EC/6A, in
CLOSE.

Standard:

Closes Emergency Feeder Breaker 1834

SAT__ UNSAT__ N/A__ COMMENTS:_____

Performance Step 11:

Critical X Not Critical

[4] **PERFORM** the following to align 4KV Shutdown Board 3ED:

[4.1] **VERIFY** DG 3D CONTROL switch, 3-HS-82-3D/1A, in START.

Standard:

Starts DG 3D

SAT__ UNSAT__ N/A __ COMMENTS: _____

DRIVER: after DG is started enter trigger 1 for Low Lube Oil Pressure

Performance Step 12:

Critical _ Not Critical X

[4.2] **VERIFY** 4KV SD BD 3ED AUTO TO MANUAL TRIP pushbutton,
3-HS-211-3ED, in MANUAL.

Standard:

Depresses 3-HS-211-3ED

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 13:

Critical _ Not Critical X

[4.3] **VERIFY** 4KV SD BD 3ED NORM FDR BKR 1342, 3-HS-211-3ED/8A, in
TRIP.

Standard:

Trips Normal Feeder Breaker 1342

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 14:

Critical _ Not Critical X

[4.4] **VERIFY** DG 3D BKR 1836 CLOSED.

Standard:

Closes DG Breaker 1836

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 15:

Critical _ Not Critical X

[4.5] **PLACE** 4KV SD BD 3ED EMER FDR BKR 1846, 3-HS-211-3ED/4A, in
CLOSE.

Standard:

Closes Emergency Feeder Breaker 1846

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: If Assistant Unit Operator is called, After Lube oil pressure alarm is received on 9-23, report lube oil pressure low at 5 psig and Lube Oil is spraying out of a damaged coupling.

Performance Step 16:

Critical ☐ Not Critical ☒

RESPONDS to the Alarm 9-23D WIN 4 (DIESEL GEN D LUBE OIL ABNORMAL) and notices the AMBER LIGHT (LOW LOW OIL PRESSURE)

Standard:

Responds per the ARP and Verifies the AMBER LIGHT is lit.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 17:

Critical ☒ Not Critical

SHUTS DOWN the DG with the Emergency Stop Pushbutton per the ARP.

Standard:

Shuts Down the DG with the Emergency Stop Pushbutton.

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: If asked, continued operation of DG D is not absolutely necessary.

Examiner note: ALARM on 9-23D win 4 DG D LUBE OIL ABNORMAL will alarm and LOW LOW OIL PRESSURE LIGHT for D DG will illuminate, the operator should respond per the ARP.

Performance Step 18:

Critical _ Not Critical X

[5] **NOTIFY** Unit 2 Unit Supervisor of the completion of this section.

[6] **PROCEED TO** 480V RMOV Board 3C in preparation of performing Section 2.0.

Standard:

Notifies Unit Supervisor

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: Remain in Control Room another Operator has been dispatched to 480V RMOV Board 3C. JPM Complete

END OF TASK

STOP TIME ____

OPERATOR: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: f

TASK NUMBER: U-090-NO-11

TASK TITLE: Inhibit trip signal for NUMAC 1-RM-90-141/143

K/A NUMBER: 272000 K3.06 K/A RATING: RO 3.4 SRO: 3.6

TASK STANDARD: Trip signal inhibited for NUMAC 1-RM-90-141/143

LOCATION OF PERFORMANCE: Control Room

REFERENCES/PROCEDURES NEEDED: 1-OI-90

VALIDATION TIME:

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

COMMENTS: _____

Additional comment sheets attached? YES ____ NO ____

RESULTS: SATISFACTORY ____ UNSATISFACTORY ____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are a Unit Operator. The RX & REFUEL ZONE EXH CH B RAD MON RTMR 1-RM-90-141/143 has an upscale trip locked in on REFUEL ZONE DET A and B, 1-RE-90-141A/B. The trip signal will not reset and has been confirmed to be not valid.

INITIATING CUE:

The Unit Supervisor directs you to inhibit the upscale trip per 1-OI-90 Radiation Monitoring System section 6.6, to prevent further impact to plant operation due to the reactor zone isolation.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT

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

INITIAL CONDITIONS:

You are a Unit Operator. The RX & REFUEL ZONE EXH CH B RAD MON RTMR 1-RM-90-141/143 has an upscale trip locked in on REFUEL ZONE DET A and B, 1-RE-90-141A/B. The trip signal will not reset and has been confirmed to be not valid.

INITIATING CUE:

The Unit Supervisor directs you to inhibit the upscale trip per 1-OI-90 Radiation Monitoring System section 6.6, to prevent further impact to plant operation due to the reactor zone isolation.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT

START TIME _____

Performance Step 1:

Critical _ Not Critical X

6.6 NUMAC Radiation Monitor Operation

NOTES

- 1) The section is applicable to Main Steam Line Radiation Monitors 1-RM-90-136 & 137 and RX & REFUEL ZONE EXH CH A(B) RAD MON RTMR, 1-RM-90-140/142 (1-RM-90-141/143).
- 2) A screen saver activates on the monitor after 30 minutes of constant display.
- 3) There are two detectors for each channel of the Reactor Zone/Refuel Zone monitors and are indicated on each monitor as follows:

1-RM-90-140/142

Display	Description
CH 2A	CH 2A RX ZONE DET A, 1-RE-90-142A
CH 2B	CH 2B RX ZONE DET B, 1-RE-90-142B
CH 0A	CH 0A REFUEL ZONE DET A, 1-RE-90-140A
CH 0B	CH 0B REFUEL ZONE DET B, 1-RE-90-140B

1-RM-90-141/143

Display	Description
CH 3A	CH 3A RX ZONE DET A, 1-RE-90-143A
CH 3B	CH 3B RX ZONE DET B, 1-RE-90-143B
CH 1A	CH 1A REFUEL ZONE DET A, 1-RE-90-141A
CH 1B	CH 1B REFUEL ZONE DET B, 1-RE-90-141B

- 4) Only the "A" detector of each channel described above has input to radiation recorder 1-RR-90-144.

- [1] IF the screen saver is activated, **THEN DEPRESS** any of the prompt keys at the bottom of the screen to display the monitored channels.

Standard:

May depress prompt key to activate display

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: If display is checked detector 141 A and B indicate Upscale Trips
You have the necessary tools to complete the task.

Performance Step 2:

Critical X Not Critical

CAUTION

A Reactor Zone isolation can cause a unit scram in less than five minutes due to high temperature in the steam tunnel.

NOTES

- 1) Step 6.6[2] is to be performed in the event of a trip signal that will **NOT** reset to prevent further impact to plant operation due to reactor zone isolation. This is only considered appropriate when the signal is believed to be invalid.
 - 2) Technical Specifications only allow one trip channel at a time to be out of service. This section provides directions for removing both trip channels from service but should only be performed on one channel at a time. Reference Technical Specification 3.3.6.2 for limiting conditions.
 - 3) Any active trip condition will be indicated by a highlighted "TRIP" at the top of the screen. A non-highlighted "TRIP" at the top of the screen indicates that there are one or more past trip condition that have been acknowledged.
 - 4) Trips on the Reactor Zone/Refuel Zone Radiation monitors will automatically reset when the alarming condition resets.
 - 5) Downscale trips take more than one trip channel to activate the logic.
- [2] **PERFORM** the following to immediately reset a Group 6 Isolation Due to Reactor Zone Radiation Monitors:

[2.1] **PLACE** affected monitor keylock switch to INOP position.

Standard:

Simulates placing monitor 1-RM-90-141/143 keylock switch to INOP

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: Keylock switch is in the INOP position on 1-RM-90-141/143.

Performance Step 3:

* Critical X Not Critical

NOTE

Step(s) 6.6[2.2] and 6.6[2.3] place jumpers to inhibit the upscale trips for a monitor.

[2.2] **IF** the affected monitor is 1-RM-90-140/142, **THEN PLACE** jumper across the following terminals in the back of Panel 9-10 to inhibit the upscale trip:

TB HH terminals 49 and 50

*[2.3] **IF** the affected monitor is 1-RM-90-141/143, **THEN PLACE** jumper across the following terminals in the back of Panel 9-10 to inhibit the upscale trip:

TB DD terminals 59 and 60

Standard:

Simulates performing step 2.3, places a jumper across terminals 59 and 60 on TB DD

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: Jumper is placed across terminals 59 and 60 on TB DD

END OF TASK

STOP TIME ____

C

C

C

OPERATOR: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: f

TASK NUMBER: U-090-NO-11

TASK TITLE: Inhibit trip signal for NUMAC 2-RM-90-141/143

K/A NUMBER: 272000 K3.06 K/A RATING: RO 3.4 SRO: 3.6

TASK STANDARD: Trip signal inhibited for NUMAC 2-RM-90-141/143

LOCATION OF PERFORMANCE: Control Room

REFERENCES/PROCEDURES NEEDED: 2-OI-90

VALIDATION TIME:

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

COMMENTS: _____

Additional comment sheets attached? YES ____ NO ____

RESULTS: SATISFACTORY ____ UNSATISFACTORY ____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are a Unit Operator. The RX & REFUEL ZONE EXH CH B RAD MON RTMR 2-RM-90-141/143 has an upscale trip locked in on REFUEL ZONE DET A and B, 2-RE-90-141A/B. The trip signal will not reset and has been confirmed to be not valid.

INITIATING CUE:

The Unit Supervisor directs you to inhibit the upscale trip per 2-OI-90 Radiation Monitoring System section 6.6, to prevent further impact to plant operation due to the reactor zone isolation.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT

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

INITIAL CONDITIONS:

You are a Unit Operator. The RX & REFUEL ZONE EXH CH B RAD MON RTMR 2-RM-90-141/143 has an upscale trip locked in on REFUEL ZONE DET A and B, 2-RE-90-141A/B. The trip signal will not reset and has been confirmed to be not valid.

INITIATING CUE:

The Unit Supervisor directs you to inhibit the upscale trip per 2-OI-90 Radiation Monitoring System section 6.6, to prevent further impact to plant operation due to the reactor zone isolation.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT

START TIME _____

Performance Step 1:

Critical _ Not Critical X

6.6 NUMAC Radiation Monitor Operation

NOTES

- 1) This section is applicable to Main Steam Line radiation monitors 2-RM-90-136, 137 and Reactor Zone/Refuel Zone radiation monitors 2-RM-90-140/142 and 2-RM-90-141/143.
 - 2) A screen saver activates on the monitor after 30 minutes of constant display.
- [1] **IF** the screen saver is activated, **THEN DEPRESS** any of the prompt keys at the bottom of the screen to display the monitored channels.

Standard:

May depress prompt key to activate display

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: If display is checked detector 141 A and B indicate Upscale Trips
You have the necessary tools to complete the task.

NOTES

- 1) There are two detectors for each channel of the Reactor Zone/Refuel Zone Monitors and are indicated on each monitor as follows:

2-RM-90-140/142	
Display	Description
2A	2-RE-90-142A, Reactor Zone channel A detector A.
2B	2-RE-90-142B, Reactor Zone channel A detector B.
0A	2-RE-90-140A, Refuel Zone channel A detector A.
0B	2-RE-90-140B, Refuel zone channel A detector B.

2-RM-90-141/143	
Display	Description
3A	2-RE-90-143A, Reactor Zone channel B detector A.
3B	2-RE-90-143B, Reactor Zone channel B detector B.
1A	2-RE-90-141A, Refuel Zone channel B detector A.
1B	2-RE-90-141B, Refuel Zone channel B detector B.

- 2) Only the "A" detector of each channel described above has input to radiation recorder 2-RR-90-144 Reactor & Refuel Zone Exhaust Radiation.
- 3) Any active trip condition will be indicated by a highlighted "TRIP" at the top of the screen. A non-highlighted "TRIP" at the top of the screen indicates that there are one or more past trip conditions that have not been acknowledged.
- 4) Trips on the Reactor Zone/Refuel Zone Radiation monitors will automatically reset when the alarming condition resets.

Performance Step 2:

Critical X Not Critical

[2] Immediate Resetting of Group 6 Isolation Due to Reactor Zone Radiation Monitors

CAUTION

A Reactor Zone isolation can cause a unit scram in less than five minutes due to high temperature in the steam tunnel.

NOTES

- 1) This section is to be performed in the event of a trip signal that will not reset in order to prevent further impact to plant operation due to reactor zone isolation. This is only considered appropriate when the signal is believed to be invalid.
- 2) Technical Specifications only allow one trip channel at a time to be out of service. This section provides directions for removing both trip channels from service but should only be performed on one channel at a time. Reference Technical Specification 3.3.6.2 for limiting conditions.
- 3) This section places jumpers to inhibit the upscale trips for a monitor.
- 4) Downscale trips take more than one trip channel to activate the logic.

[2.1] **PLACE** affected monitor keylock switch to INOP position.

Standard:

Simulates placing monitor 2-RM-90-141/143 keylock switch to INOP

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: Keylock switch is in the INOP position for monitor 2-RM-90-141/143.

Performance Step 3:

*Critical ☒ Not Critical

[2.2] **IF** the affected monitor is 2-RM-90-140/142, **THEN PLACE** jumper across the following terminals in the back of Panel 2-9-10 to inhibit the upscale trip:

TB HH terminals 49 and 50

*[2.3] **IF** the affected monitor is 2-RM-90-141/143, **THEN PLACE** jumper across the following terminals in the back of Panel 2-9-10 to inhibit the upscale trip:

TB DD terminals 59 and 60

Standard:

Simulates performing step 2.3, places a jumper across terminals 59 and 60 on TB DD

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: Jumper is placed across terminals 59 and 60 on TB DD

END OF TASK

STOP TIME ____

C

C

C

OPERATOR: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: f

TASK NUMBER: U-090-NO-11

TASK TITLE: Inhibit trip signal for NUMAC 3-RM-90-141/143

K/A NUMBER: 272000 K3.06 K/A RATING: RO 3.4 SRO: 3.6

TASK STANDARD: Trip signal inhibited for NUMAC 3-RM-90-141/143

LOCATION OF PERFORMANCE: Control Room

REFERENCES/PROCEDURES NEEDED: 3-OI-90

VALIDATION TIME:

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

COMMENTS: _____

Additional comment sheets attached? YES ____ NO ____

RESULTS: SATISFACTORY ____ UNSATISFACTORY ____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

You are a Unit Operator. The RX & REFUEL ZONE EXH CH B RAD MON RTMR 3-RM-90-141/143 has an upscale trip locked in on REFUEL ZONE DET A and B, 3-RE-90-141A/B. The trip signal will not reset and has been confirmed to be not valid.

INITIATING CUE:

The Unit Supervisor directs you to inhibit the upscale trip per 3-OI-90 Radiation Monitoring System section 6.4, to prevent further impact to plant operation due to the reactor zone isolation.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT

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

INITIAL CONDITIONS:

You are a Unit Operator. The RX & REFUEL ZONE EXH CH B RAD MON RTMR 3-RM-90-141/143 has an upscale trip locked in on REFUEL ZONE DET A and B, 3-RE-90-141A/B. The trip signal will not reset and has been confirmed to be not valid.

INITIATING CUE:

The Unit Supervisor directs you to inhibit the upscale trip per 3-OI-90 Radiation Monitoring System section 6.4, to prevent further impact to plant operation due to the reactor zone isolation.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT

START TIME _____

Performance Step 1:

Critical _ Not Critical X

6.4 NUMAC Radiation Monitor Operation

NOTES

- 1) This section is applicable to Main Steam Line radiation monitors 3-RM-90-136, 137 and Reactor Zone/Refuel Zone radiation monitors 3-RM-90-140/142 and 3-RM-90-141/143.
 - 2) A screen saver activates on the monitor after 30 minutes of constant display.
- [1] **IF** the screen saver is activated, **THEN DEPRESS** any of the prompt keys at the bottom of the screen to display the monitored channels.

Standard:

May depress prompt key to activate display

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: If display is checked detector 141 A and B indicate Upscale Trips
You have the necessary tools to complete the task.

NOTES

- 1) There are two detectors for each channel of the Reactor Zone/Refuel Zone Monitors and are indicated on each monitor as follows:

3-RM-90-140/142

Display	Description
2A	3-RE-90-142A, Reactor Zone channel A detector A.
2B	3-RE-90-142B, Reactor Zone channel A detector B.
0A	3-RE-90-140A, Refuel Zone channel A detector A.
0B	3-RE-90-140B, Refuel zone channel A detector B.

2-RM-90-141/143

Display	Description
3A	3-RE-90-143A, Reactor Zone channel B detector A.
3B	3-RE-90-143B, Reactor Zone channel B detector B.
1A	3-RE-90-141A, Refuel Zone channel B detector A.
1B	3-RE-90-141B, Refuel Zone channel B detector B.

- 2) Only the "A" detector of each channel described above has input to radiation recorder 3-RR-90-144 Reactor & Refuel Zone Exhaust Radiation.
- 3) Any active trip condition will be indicated by a highlighted "TRIP" at the top of the screen. A non-highlighted "TRIP" at the top of the screen indicates that there are one or more past trip conditions that have not been acknowledged.
- 4) Trips on the Reactor Zone/Refuel Zone Radiation monitors will automatically reset when the alarming condition resets.

Performance Step 2:

Critical X Not Critical

- [2] **PERFORM** the following to immediately Reset Group 6 Isolation Due to Reactor Zone Radiation Monitors.

CAUTION

A Reactor Zone isolation can cause a unit scram in less than five minutes due to high temperature in the steam tunnel.

NOTES

- 1) This section is to be performed in the event of a trip signal that will **NOT** reset in order to prevent further impact to plant operation due to reactor zone isolation. This is only considered appropriate when the signal is believed to be invalid.
- 2) Technical Specifications only allow one trip channel at a time to be out of service. This section provides directions for removing both trip channels from service but should only be performed on one channel at a time. Reference Technical Specification 3.3.6.2 for limiting conditions.
- 3) This section places jumpers to inhibit the upscale trips for a monitor

- [2.1] **PLACE** affected monitor keylock switch to INOP position.

Standard:

Simulates placing monitor 3-RM-90-141/143 keylock switch to INOP

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: Keylock switch is in the INOP position for monitor 3-RM-90-141/143.

Performance Step 3:

*Critical X Not Critical

[2.2] **IF** the affected monitor is 3-RM-90-140/142, **THEN PLACE** jumper across the following terminals in the back of Panel 3-9-10 to inhibit the upscale trip:

TB HH terminals 49 and 50

*[2.3] **IF** the affected monitor is 3-RM-90-141/143, **THEN PLACE** jumper across the following terminals in the back of Panel 3-9-10 to inhibit the upscale trip:

TB DD terminals 59 and 60

Standard:

Simulates performing step 2.3, places a jumper across terminals 59 and 60 on TB DD

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: Jumper is placed across terminals 59 and 60 on TB DD

END OF TASK

STOP TIME ____

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: g

TASK NUMBER: U-000-EM-74

TASK TITLE: Crosstie CAD to Drywell Control Air

K/A NUMBER: 218000 A2.03 K/A RATING: RO 3.4 SRO: 3.6

TASK STANDARD: Align Containment Air Dilution systems A and B to the Drywell Air System
and then isolates CAD System B.

LOCATION OF PERFORMANCE: Simulator

REFERENCES/PROCEDURES NEEDED: 2-EOI Appendix-8G

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are an Operator. The Unit 2 reactor has scrammed. EOI-1 has been followed to RC/P-8.

INITIATING CUE: The Unit Supervisor has directed you to perform 2-EOI Appendix-8G, Crosstie CAD to Drywell Control Air.

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

INITIAL CONDITIONS: You are an Operator. The Unit 2 reactor has scrammed. EOI-1 has been followed to RC/P-8.

INITIATING CUE: The Unit Supervisor has directed you to perform 2-EOI Appendix-8G, Crosstie CAD to Drywell Control Air.

START TIME _____

Performance Step 1:

Critical X Not Critical

1. **OPEN** the following valves:

- 0-FCV-84-5, CAD SYSTEM A N2 SHUTOFF VALVE (Unit 1, Panel 9-54)
- 0-FCV-84-16, CAD SYSTEM B N2 SHUTOFF VALVE (Unit 1, Panel 9-55)

Standard:

Opens 0-FCV-84-5 and 16

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 2:

Critical _ Not Critical X

2. **VERIFY** 0-PI-84-6, N2 VAPORIZER A OUTLET PRESSURE, and 0-PI-84-17, N2 VAPORIZER B OUTLET PRESSURE, indicate approximately 100 psig (Unit 1, Panel 9-54 and 9-55)

Standard:

Verifies 0-PI-84-6 and 0-PI-84-17 (Located on back of Unit 2 Panel 9-54 in simulator) indicating approximately 100 psig.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 3:

*Critical X Not Critical

- *3. **PLACE** keylock switch 2-HS-84-48, CAD A CROSS TIE TO DW CONTROL AIR, in OPEN (Unit 2, Panel 9-54)
- 4. **CHECK OPEN** 2-FSV-84-48, CAD A CROSS TIE TO DW CONTROL AIR, (Unit 2, Panel 9-54)

Standard:

Places keylock switch 2-HS-84-48 in Open and verifies 2-FSV-84-48 is open

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 4:

*Critical X Not Critical

- *5. **PLACE** keylock switch 2-HS-84-49, CAD B CROSS TIE TO DW CONTROL AIR, in OPEN (Unit 2, Panel 9-55)
- 6. **CHECK OPEN** 2-FSV-84-49, CAD B CROSS TIE TO DW CONTROL AIR (Unit 2, Panel 9-55)

Standard:

Places keylock switch 2-HS-84-49 in Open and verifies 2-FSV-84-49 open

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 5:

Critical X Not Critical

7. **CHECK** MAIN STEAM RELIEF VLV AIR ACCUM PRESS LOW, 2-PA-32-31, alarm cleared (2-XA-55-3D, Window 18)

Standard:

Recognizes MAIN STEAM RELIEF VLV AIR ACCUM PRESS LOW (2-XA-55-3D, Win. 18) still in Alarm (would Not clear) and continues with procedure.

SAT__ UNSAT__ N/A__ COMMENTS:_____

Performance Step 6:

Critical _ Not Critical X

8. IF MAIN STEAM RELIEF VLV AIR ACCUM PRESS LOW, 2-PA-32-31, annunciator is or remains in alarm (2-XA-55-3D, Window 18), THEN **DETERMINE** which Drywell Control Air header is depressurized as follows:

- a. **DISPATCH** personnel to Unit 2, RB, El 565 ft, to **MONITOR** the following indications for low pressure:

- 2-PI-84-51, CAD N2 PRESSURE TO DWCA indicator, for CAD A (R-10 S-line, by Drywell Access Door)
- 2-PI-84-50, DW CONT AIR N2 SUPPLY PRESS indicator, for CAD B (R-12 U-line, behind 480V RB Vent Board 2B)

Standard:

Dispatches personnel to Reactor Building to monitor 2-PI-84-51 and 2-PI-84-50 for low pressure.

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: [When dispatched, as AUO, report] 2-PI-84-51, CAD N₂ Pressure to DWCA indicator, for CAD A is reading 110 psig. 2-PI-84-50 for CAD B is reading 5 psig.

Performance Step 7:

Critical X Not Critical

- b. **MONITOR** 0-FI-84-7(18), CAD LINE A(B) N2 FLOW, on Unit 1, Panel 1-9-54(55) for high flow.

Standard:

Recognizes 0-FI-84-7 flow 0 scfm and 0-FI-84-18 flow 90 scfm

SAT__ UNSAT__ N/A__ COMMENTS: _____

NOTE

CAD System A to Drywell Control Air supplies the following MSIVs:

- 2-FCV-1-14, MSIV LINE A INBOARD
- 2-FCV-1-26, MSIV LINE B INBOARD

NOTE

CAD System B to Drywell Control Air supplies the following MSIVs:

- 2-FCV-1-37, MSIV LINE C INBOARD
- 2-FCV-1-51, MSIV LINE D INBOARD

Performance Step 8:

Critical _ Not Critical X

- c. **MONITOR** inboard MSIV indication status for valves drifting closed.

Standard:

Recognizes 2-FCV-1-37 and 51 closed

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 9:

Critical _ Not Critical X

9. IF Drywell Control Air header supplied from CAD System A shows indications of being depressurized, THEN **CLOSE** the following valves:

- 0-FCV-84-5, CAD SYSTEM A N2 SHUTOFF VALVE (Unit 1, Panel 9-54)
- 2-FSV-84-48, CAD A CROSS TIE TO DW CONTROL AIR (Unit 2, Panel 9-54)

Standard:

N/A – No indications of being depressurized

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 10:

Critical X Not Critical

10. IF Drywell Control Air header supplied from CAD B shows indications of being depressurized, THEN **CLOSE** the following valves:

- 0-FCV-84-16, CAD SYSTEM B N2 SHUTOFF VALVE (Unit 1, Panel 9-55)
- 2-FSV-84-49, CAD B CROSS TIE TO DW CONTROL AIR (Unit 2, Panel 9-55)

Standard:

Closes 0-FCV-84-16 and 2-FSV-84-49

SAT__ UNSAT__ N/A __ COMMENTS: _____

STOP TIME _____

END OF TASK

C

C

C

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: g

TASK NUMBER: U-000-EM-74

TASK TITLE: Crosstie CAD to Drywell Control Air

K/A NUMBER: 218000 A2.03 K/A RATING: RO 3.4 SRO: 3.6

TASK STANDARD: Align Containment Air Dilution systems A and B to the Drywell Air System
and then isolates CAD System B.

LOCATION OF PERFORMANCE: Simulator

REFERENCES/PROCEDURES NEEDED: 3-EOI Appendix-8G

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are an Operator. The Unit 3 reactor has scrammed. EOI-1 has been followed to RC/P-8.

INITIATING CUE: The Unit Supervisor has directed you to perform 3-EOI Appendix-8G, Crosstie CAD to Drywell Control Air.

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

INITIAL CONDITIONS: You are an Operator. The Unit 3 reactor has scrammed. EOI-1 has been followed to RC/P-8.

INITIATING CUE: The Unit Supervisor has directed you to perform 3-EOI Appendix-8G, Crosstie CAD to Drywell Control Air.

START TIME _____

Performance Step 1:

Critical X Not Critical

1. **OPEN** the following valves:

- 0-FCV-84-5, CAD SYSTEM A N2 SHUTOFF VALVE (Panel 3-9-54)
- 0-FCV-84-16, CAD SYSTEM B N2 SHUTOFF VALVE (Panel 3-9-55)

Standard:

Opens 0-FCV-84-5 and 16

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical _ Not Critical X

2. **VERIFY** 0-PI-84-6/3, VAPOR A OUTLET PRESS, and 0-PI-84-17/3, VAPOR B OUTLET PRESS, indicate approximately 100 psig (Unit 3, Panel 3-9-54 and 3-9-55)

Standard:

Verified 0-PI-84-6/3 and 0-PI-84-17/3 (Located on Unit 3, Panel 3-9-54 and 3-9-55) indicating approximately 100 psig.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 3:

*Critical ☒ Not Critical

- *3. **PLACE** keylock switch 3-HS-84-48, CAD A CROSS TIE TO DW CONTROL AIR, in OPEN (Unit 3, Panel 3-9-54)
- 4. **CHECK OPEN** 3-FSV-84-48, CAD A CROSS TIE TO DW CONTROL AIR, (Unit 3, Panel 3-9-54)

Standard:

Places keylock switch 3-HS-84-48 in Open and verifies 3-FSV-84-48 open

SAT__ UNSAT__ N/A __ COMMENTS:_____

Performance Step 4:

*Critical ☒ Not Critical

- *5. **PLACE** keylock switch 3-HS-84-49, CAD B CROSS TIE TO DW CONTROL AIR, in OPEN (Unit 3, Panel 3-9-55)
- 6. **CHECK OPEN** 3-FSV-84-49, CAD B CROSS TIE TO DW CONTROL AIR (Unit 3, Panel 3-9-55)

Standard:

Places keylock switch 3-HS-84-49 in Open and verifies 3-FSV-84-49

SAT__ UNSAT__ N/A __ COMMENTS:_____

Performance Step 5:

Critical X Not Critical

7. **CHECK** MAIN STEAM RELIEF VLV AIR ACCUM PRESS LOW, 3-PA-32-31, alarm cleared (3-XA-55-3D, Window 18)

Standard:

Recognizes MAIN STEAM RELIEF VLV AIR ACCUM PRESS LOW (3-XA-55-3D, Win. 18) still in Alarm (would NOT clear) and continues with procedure.

SAT__ UNSAT__ N/A__ COMMENTS:_____

Performance Step 6:

Critical _ Not Critical X

8. IF MAIN STEAM RELIEF VLV AIR ACCUM PRESS LOW, 3-PA-32-31, annunciator is or remains in alarm (3-XA-55-3D, Window 18), THEN **DETERMINE** which Drywell Control Air header is depressurized as follows:

- a. **DISPATCH** personnel to Unit 3, RB, El 565 ft, to **MONITOR** the following indications for low pressure:
- 3-PI-84-51, CAD A CROSSTIE TO DWCA PRESS INDR, for CAD A (R-17 S-line, by Drywell Access Door)
 - 3-PI-84-50, DW CONT AIR N2 SUPPLY PRESS indicator, for CAD B ((R-19 U-line, behind 480V RB Vent Board 3B)

Standard:

Dispatches personnel to Reactor Building to monitor 3-PI-84-51 and 3-PI-84-50 for low pressure.

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: [When dispatched, as AUO, report] 3-PI-84-51, CAD N₂ Pressure to DWCA indicator, for CAD A is reading 110 psig and 3-PI-84-50 reading 5 psig.

Performance Step 7:

Critical X Not Critical

- b. **MONITOR** 0-FI-84-7/3(18/3), CAD A(B) N2 SYSTEM FLOW, on Panel 3-9-54(55) for high flow.

Standard:

Recognizes 0-FI-84-7/3 flow is 0 scfm and that 0-FI-84-18 flow is 50 scfm

SAT__ UNSAT__ N/A __ COMMENTS: _____

NOTE

CAD System A to Drywell Control Air supplies the following MSIVs:

- 3-FCV-1-14, MSIV LINE A INBOARD
- 3-FCV-1-26, MSIV LINE B INBOARD

NOTE

CAD System B to Drywell Control Air supplies the following MSIVs:

- 3-FCV-1-37, MSIV LINE C INBOARD
- 3-FCV-1-51, MSIV LINE D INBOARD

Performance Step 8:

Critical _ Not Critical X

- c. **MONITOR** inboard MSIV indication status for valves drifting closed.

Standard:

Recognizes 3-FCV-1-37 and 51 closed

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 9:

Critical _ Not Critical X

9. IF Drywell Control Air header supplied from CAD System A shows indications of being depressurized, THEN **CLOSE** the following valves:

- 0-FCV-84-5, CAD SYSTEM A N2 SHUTOFF VALVE (Unit 3, Panel 3-9-54)
- 3-FSV-84-48, CAD A CROSS TIE TO DW CONTROL AIR (Unit 3, Panel 3-9-54)

Standard:

N/A - No indications of being depressurized

SAT__ UNSAT__ N/A __ COMMENTS:_____

Performance Step 10:

Critical X Not Critical

10. IF Drywell Control Air header supplied from CAD B shows indications of being depressurized, THEN **CLOSE** the following valves:

- 0-FCV-84-16, CAD SYSTEM B N2 SHUTOFF VALVE (Unit 3, Panel 3-9-55)
- 3-FSV-84-49, CAD B CROSS TIE TO DW CONTROL AIR (Unit 3, Panel 3-9-55)

Standard:

Closes 0-FCV-84-16 and 3-FSV-84-49

SAT__ UNSAT__ N/A __ COMMENTS:_____

STOP TIME _____

END OF TASK

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: h

TASK NUMBER: U-000-EM-60

TASK TITLE: 1-EOI Appendix-11H Alternate Pressure Control

K/A NUMBER: 271000 A2.04 K/A RATING: RO 3.7 SRO: 4.1

TASK STANDARD: 1-EOI Appendix-11H simulated complete with bypass valves
depressurizing the RPV

LOCATION OF PERFORMANCE: Control Room

REFERENCES/PROCEDURES NEEDED: 1-EOI Appendix-11H

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are an Operator on Unit 1, the Unit Supervisor has transitioned to 1-C-2 Emergency RPV Depressurization. During Emergency Depressurization only 1 MSRV could be opened, RPV pressure remains greater than 90 psig above Suppression Chamber Pressure. Offgas Post Treatment Radiation Monitor HI-HI-HI/INOP (1-XA-55-4C) is sealed in. Offgas System Isolation Valve 1-FCV-66-28 is closed. A gross fuel failure does not exist. SJAE A is in service and aligned to the Main Condenser. Main Steam Line D is not isolated.

INITIATING CUE: The Unit Supervisor directs you to perform 1-EOI Appendix-11H Alternate RPV Pressure Control Systems Main Condenser and rapidly depressurize the RPV.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are an Operator on Unit 1, the Unit Supervisor has transitioned to 1-C-2 Emergency RPV Depressurization. During Emergency Depressurization only 1 MSRV could be opened, RPV pressure remains greater than 90 psig above Suppression Chamber Pressure. Offgas Post Treatment Radiation Monitor HI-HI-HI/INOP (1-XA-55-4C) is sealed in. Offgas System Isolation Valve 1-FCV-66-28 is closed. A gross fuel failure does not exist. SJAE A is in service and aligned to the Main Condenser. Main Steam Line D is not isolated.

INITIATING CUE: The Unit Supervisor directs you to perform 1-EOI Appendix-11H Alternate RPV Pressure Control Systems Main Condenser and rapidly depressurize the RPV.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

Critical ☐ Not Critical ☒

1. IF ANY indication of gross fuel failure exists,
THEN BEFORE continuing in this procedure, **NOTIFY** SED that offsite release rate
limits may be exceeded.

Standard:

Given in initial conditions that a gross fuel failure does not exist.

SAT ☐ UNSAT ☐ N/A ☐ COMMENTS: _____

Performance Step 2:

Critical ☒ Not Critical ☐

2. **VERIFY** Main Condenser Off-Gas is aligned to the stack as follows:
 - a. IF OG POST TRTMT RAD MONITOR HI-HI-HI/INOP 1-RA-90-265C
Annunciator (1-XA-55-4C, Window 35) is sealed in, THEN **JUMPER** Off-Gas
Post Treatment Radiation Hi-Hi-Hi Isolation to 1-FCV-66-28, OFFGAS
SYSTEM ISOLATION VALVE, as follows:
 - 1) **REFER** to Attachment 1 and **OBTAIN** one banana jack jumper from
Control Room EOI Equipment Storage Box.

Standard:

Identifies where to obtain the banana jack jumper

SAT ☐ UNSAT ☐ N/A ☐ COMMENTS: _____

CUE: When location of banana jack jumper identified, Operator has the jumper

Performance Step 3:

Critical X Not Critical

- 2) **LOCATE** terminal strip BB, Panel 1-9-53 Bay 1 Rear.
- 3) **JUMPER** BB-59 to BB-60 (Panel 1-9-53).

Standard:

Simulates installing jumper on terminal strip BB from BB-59 to BB-60

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: When simulated jumper installed from BB-59 to BB-60

Performance Step 4:

Critical __ Not Critical X

- b. **VERIFY OPEN** 1-FCV-66-28, OFFGAS SYSTEM ISOLATION VALVE
(Panel 1-9-53).

Standard:

Checks position of 1-FCV-66-28

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: 1-FCV-66-28 is has Red light On and Green light Off. Valve is Open

Performance Step 5:

Critical ☐ Not Critical ☒

3. **VERIFY** SJAE 1A or 1B in service and aligned to Main Condenser (Panel 9-7).

Standard:

Given in initial conditions

SAT ☐ UNSAT ☐ N/A ☐ COMMENTS: _____

Performance Step 6:

Critical ☐ Not Critical ☒

4. IF EITHER of the following exists:

- 1-FCV-66-28, OFFGAS SYSTEM ISOLATION VALVE, CANNOT be opened,
- OR**
- SJAEs CANNOT be placed in service or aligned to Main Condenser,

Standard:

Step is NA, Operator just opened 1-FCV-66-28

SAT ☐ UNSAT ☐ N/A ☐ COMMENTS: _____

Performance Step 7:

Critical X Not Critical

5. IF ANY Main Steam Line is NOT isolated,
THEN **CONTINUE** in this procedure at Step 12.

Standard:

Continues in procedure at step 12

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 8:

Critical X Not Critical

12. **OPEN** Turbine Bypass valves as necessary to rapidly depressurize RPV.

Standard:

Simulates opening Turbine Bypass Valves by depressing Bypass Valve Opening Jack raise pushbutton until all 9 Turbine Bypass valves are Open.

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE:	Pushbutton depressed, bypass valve #1 indication going from 0% to 100% red light on and green light off, bypass valve #2, #3, #4, #5, #6, #7, #8 and #9 red light on green light off 0% to 100%. Reactor Pressure is lowering.
-------------	--

Performance Step 9:

Critical ☐ Not Critical ☒

NOTIFY Unit Supervisor that 1-EOI Appendix-11H is complete and rapidly depressurizing the RPV.

Standard:

Notifies Unit Supervisor

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: Acknowledge notification

END OF TASK

STOP TIME_____

C

C

C

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: h

TASK NUMBER: U-000-EM-60

TASK TITLE: 2-EOI Appendix-11H Alternate Pressure Control

K/A NUMBER: 271000 A2.04 K/A RATING: RO 3.7 SRO: 4.1

TASK STANDARD: 2-EOI Appendix-11H simulated complete with bypass valves
depressurizing the RPV

LOCATION OF PERFORMANCE: Control Room

REFERENCES/PROCEDURES NEEDED: 2-EOI Appendix-11H

VALIDATION TIME:

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are an Operator on Unit 2, the Unit Supervisor has transitioned to 2-C-2 Emergency RPV Depressurization. During Emergency Depressurization only 1 MSRV could be opened, RPV pressure remains greater than 90 psig above Suppression Chamber Pressure. Offgas Post Treatment Radiation Monitor HI-HI-HI/INOP (2-XA-55-4C) is sealed in. Offgas System Isolation Valve 2-FCV-66-28 is closed. A gross fuel failure does not exist. SJAE A is in service and aligned to the Main Condenser. Main Steam Line D is not isolated.

INITIATING CUE: The Unit Supervisor directs you to perform 2-EOI Appendix-11H Alternate RPV Pressure Control Systems Main Condenser and rapidly depressurize the RPV.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are an Operator on Unit 2, the Unit Supervisor has transitioned to 2-C-2 Emergency RPV Depressurization. During Emergency Depressurization only 1 MSRV could be opened, RPV pressure remains greater than 90 psig above Suppression Chamber Pressure. Offgas Post Treatment Radiation Monitor HI-HI-HI/INOP (2-XA-55-4C) is sealed in. Offgas System Isolation Valve 2-FCV-66-28 is closed. A gross fuel failure does not exist. SJAE A is in service and aligned to the Main Condenser. Main Steam Line D is not isolated.

INITIATING CUE: The Unit Supervisor directs you to perform 2-EOI Appendix-11H Alternate RPV Pressure Control Systems Main Condenser and rapidly depressurize the RPV.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

Critical __ Not Critical X

1. IF ANY indication of gross fuel failure exists,
THEN BEFORE continuing in this procedure, **NOTIFY** SED that offsite release rate
limits may be exceeded.

Standard:

Given in initial conditions that a gross fuel failure does not exist.

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical X Not Critical

2. **VERIFY** Main Condenser Off-Gas is aligned to the stack as follows:
 - a. IF OG POST TRTMT RAD MONITOR HI-HI-HI/INOP Annunciator
(2-XA-55-4C, Window 35) is sealed in, THEN **JUMPER** Off-Gas Post
Treatment Radiation Hi-Hi-Hi Isolation to 2-FCV-66-28, OFFGAS
SYSTEM ISOLATION VALVE, as follows:
 - 1) **REFER** to Attachment 1 and **OBTAIN** one banana jack jumper from
Control Room EOI Equipment Storage Box.

Standard:

Identifies where to obtain the banana jack jumper

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: When location of banana jack jumper identified, Operator has the jumper

Performance Step 3:

Critical X Not Critical

- 2) **LOCATE** terminal strip BB, Panel 9-53, Rear.
- 3) **JUMPER** BB-59 to BB-60, Panel 9-53.

Standard:

Simulates installing jumper on terminal strip BB from BB-59 to BB-60

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: When simulated jumper installed from BB-59 to BB-60

Performance Step 4:

Critical __ Not Critical X

- b. **VERIFY OPEN** 2-FCV-66-28, OFFGAS SYSTEM ISOLATION VALVE
Panel 9-53.

Standard:

Checks position of 2-FCV-66-28

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: 2-FCV-66-28 is has Red light On and Green light Off. Valve is Open

Performance Step 5:

Critical ☐ Not Critical ☒

3. **VERIFY** SJAE 2A or 2B in service and aligned to Main Condenser (Panel 9-7).

Standard:

Given in initial conditions

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 6:

Critical ☐ Not Critical ☒

4. IF EITHER of the following exists:

- 2-FCV-66-28, OFFGAS SYSTEM ISOLATION VALVE, CANNOT be opened,
- OR**
- SJAEs CANNOT be placed in service or aligned to Main Condenser,

Standard:

Step is NA, Operator just opened 2-FCV-66-28

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 7:

Critical X Not Critical

5. IF ANY Main Steam Line is NOT isolated,
THEN **CONTINUE** in this procedure at Step 12.

Standard:

Continues in procedure at step 12

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 8:

Critical X Not Critical

12. **OPEN** Turbine Bypass valves as necessary to rapidly depressurize RPV.

Standard:

Simulates opening Turbine Bypass Valves by depressing Bypass Valve Opening Jack
raise pushbutton until all 9 Turbine Bypass valves are Open.

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE:	Pushbutton depressed, bypass valve #1 indication going from 0% to 100% red light on and green light off, bypass valve #2, #3, #4, #5, #6, #7, #8 and #9 red light on green light off 0% to 100%. Reactor Pressure is lowering.
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Performance Step 9:

Critical ☐ Not Critical ☒

NOTIFY Unit Supervisor that 2-EOI Appendix-11H is complete and rapidly depressurizing the RPV.

Standard:

Notifies Unit Supervisor

SAT ☐ UNSAT ☐ N/A ☐ COMMENTS: _____

CUE: Acknowledge notification

END OF TASK

STOP TIME _____

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OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: h

TASK NUMBER: U-000-EM-60

TASK TITLE: 3-EOI Appendix-11H Alternate Pressure Control

K/A NUMBER: 271000 A2.04 K/A RATING: RO 3.7 SRO: 4.1

TASK STANDARD: 3-EOI Appendix-11H simulated complete with bypass valves
depressurizing the RPV

LOCATION OF PERFORMANCE: Control Room

REFERENCES/PROCEDURES NEEDED: 3-EOI Appendix-11H

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are an Operator on Unit 3, the Unit Supervisor has transitioned to 3-C-2 Emergency RPV Depressurization. During Emergency Depressurization only 1 MSRV could be opened, RPV pressure remains greater than 90 psig above Suppression Chamber Pressure. Offgas Post Treatment Radiation Monitor HI-HI-HI/INOP (3-XA-55-4C) is sealed in. Offgas System Isolation Valve 3-FCV-66-28 is closed. A gross fuel failure does not exist. SJAE A is in service and aligned to the Main Condenser. Main Steam Line D is not isolated.

INITIATING CUE: The Unit Supervisor directs you to perform 3-EOI Appendix-11H Alternate RPV Pressure Control Systems Main Condenser and rapidly depressurize the RPV.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are an Operator on Unit 3, the Unit Supervisor has transitioned to 3-C-2 Emergency RPV Depressurization. During Emergency Depressurization only 1 MSRV could be opened, RPV pressure remains greater than 90 psig above Suppression Chamber Pressure. Offgas Post Treatment Radiation Monitor HI-HI-HI/INOP (3-XA-55-4C) is sealed in. Offgas System Isolation Valve 3-FCV-66-28 is closed. A gross fuel failure does not exist. SJAE A is in service and aligned to the Main Condenser. Main Steam Line D is not isolated.

INITIATING CUE: The Unit Supervisor directs you to perform 3-EOI Appendix-11H Alternate RPV Pressure Control Systems Main Condenser and rapidly depressurize the RPV.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

Critical ☐ Not Critical ☒

1. IF ANY indication of gross fuel failure exists,
THEN BEFORE continuing in this procedure, **NOTIFY** SED that offsite release rate
limits may be exceeded.

Standard:

Given in initial conditions that a gross fuel failure does not exist.

SAT___ UNSAT___ N/A___ COMMENTS: _____

Performance Step 2:

Critical ☒ Not Critical

2. **VERIFY** Main Condenser Off-Gas is aligned to the stack as follows:
 - a. IF OG POST TRTMT RAD MONITOR HI-HI-HI/INOP Annunciator
(3-XA-55-4C, Window 35) is sealed in, THEN **JUMPER** Off-Gas Post
Treatment Radiation Hi-Hi-Hi Isolation to 3-FCV-66-28, OFFGAS
SYSTEM ISOLATION VALVE, as follows:
 - 1) **REFER** to Attachment 1 and **OBTAIN** one banana jack jumper from
Control Room EOI Equipment Storage Box.

Standard:

Identifies where to obtain the banana jack jumper

SAT___ UNSAT___ N/A___ COMMENTS: _____

CUE: When location of banana jack jumper identified, Operator has the jumper

Performance Step 3:

Critical X Not Critical

- 2) **LOCATE** terminal strip BB, Panel 3-9-53, Rear.
- 3) **JUMPER** BB-59 to BB-60 Panel 3-9-53.

Standard:

Simulates installing jumper on terminal strip BB from BB-59 to BB-60

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: When simulated jumper installed from BB-59 to BB-60

Performance Step 4:

Critical __ Not Critical X

- b. **VERIFY OPEN** 3-FCV-66-28, OFFGAS SYSTEM ISOLATION VALVE
Panel 3-9-53.

Standard:

Checks position of 3-FCV-66-28

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: 3-FCV-66-28 is has Red light On and Green light Off. Valve is Open

Performance Step 5:

Critical ☐ Not Critical ☒

3. **VERIFY** SJAE 3A or 3B in service and aligned to Main Condenser (Panel 3-9-7).

Standard:

Given in initial conditions

SAT ☐ UNSAT ☐ N/A ☐ COMMENTS: _____

Performance Step 6:

Critical ☐ Not Critical ☒

4. IF EITHER of the following exists:

- 3-FCV-66-28, OFFGAS SYSTEM ISOLATION VALVE, CANNOT be opened,

OR

- SJAEs CANNOT be placed in service or aligned to Main Condenser,

Standard:

Step is NA, Operator just verified open 3-FCV-66-28

SAT ☐ UNSAT ☐ N/A ☐ COMMENTS: _____

Performance Step 7:

Critical X Not Critical

5. IF ANY Main Steam Line is NOT isolated,
THEN **CONTINUE** in this procedure at Step 12.

Standard:

Continues in procedure at step 12

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 8:

Critical X Not Critical

12. **OPEN** Turbine Bypass valves as necessary to rapidly depressurize RPV.

Standard:

Simulates opening Turbine Bypass Valves by depressing Bypass Valve Opening Jack raise pushbutton until all 9 Turbine Bypass valves are Open.

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE:	Pushbutton depressed, bypass valve #1 indication going from 0% to 100% red light on and green light off, bypass valve #2, #3, #4, #5, #6, #7, #8 and #9 red light on green light off 0% to 100%. Reactor Pressure is lowering.
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Performance Step 9:

Critical ☐ Not Critical ☒

NOTIFY Unit Supervisor that 3-EOI Appendix-11H is complete and rapidly depressurizing the RPV.

Standard:

Notifies Unit Supervisor

SAT ☐ UNSAT ☐ N/A ☐ COMMENTS: _____

CUE: Acknowledge notification

END OF TASK

STOP TIME _____

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: i

TASK NUMBER: U-000-EM-19

TASK TITLE: 1-EOI Appendix-1A Removal of RPS SCRAM Fuses

K/A NUMBER: 212000 A2.20 K/A RATING: RO 4.1 SRO 4.2

TASK STANDARD: Simulate removal of SCRAM Fuses IAW 1-EOI Appendix-1A

LOCATION OF PERFORMANCE: Plant

REFERENCES/PROCEDURES NEEDED: 1-EOI Appendix-1A

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are the Extra Operator. The Unit 1 reactor has scrammed and all control rods did not fully insert. All eight scram solenoid lights on Panel 9-5 are still illuminated. EOI-1 has been entered and followed to RC/Q-23. The Scram Discharge Volume Vent/Drain Valves indicate closed on panel 1-9-5.

INITIATING CUE: The Unit Supervisor directs you to remove the RPS scram solenoid fuses in accordance with 1-EOI Appendix 1A, Removal and Replacement of RPS Scram Solenoid Fuses.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are the Extra Operator. The Unit 1 reactor has scrammed and all control rods did not fully insert. All eight scram solenoid lights on Panel 9-5 are still illuminated. EOI-1 has been entered and followed to RC/Q-23. The Scram Discharge Volume Vent/Drain Valves indicate closed on panel 1-9-5.

INITIATING CUE: The Unit Supervisor directs you to remove the RPS scram solenoid fuses in accordance with 1-EOI Appendix 1A, Removal and Replacement of RPS Scram Solenoid Fuses.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME_____

Performance Step 1:

Critical _ Not Critical X

1. **VERIFY CLOSED** Scram Discharge Volume Vent and Drain Valves at the SCRAM DISCHARGE VOLUME VENT/DRAIN VLVS display on panel 1-9-5.

Standard:

Given in initial conditions

SAT__ UNSAT__ N/A __ COMMENTS:_____

Performance Step 2:

Critical _ Not Critical X

2. **DISPATCH** personnel to the Auxiliary Instrument Room to perform the following:
 - a. **REFER** to Attachment 1 and **OBTAIN** fuse pullers from EOI Equipment Storage box.

Standard:

Simulate unlocking EOI Equipment storage and obtaining fuse pullers

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: When location of EOI Storage Box identified, Operator has the fuse pullers

Performance Step 3:

Critical ☒ Not Critical

- b. **LOCATE** Terminal Strip CC inside 1-PNLA-009-0015, Bay 2, Rear.
- c. **REMOVE** the following fuses (located at bottom of terminal strip CC, 1-PNLA-009-0015):

RPS BUS "A"

BLOCK	NUMBER	FUSE ID
CC	FOUR (4)	1-FU1-085-0037AA
CC	FIVE (5)	1-FU1-085-0039A/2
CC	SIX (6)	1-FU1-085-0039A/3
CC	SEVEN (7)	1-FU1-085-0039A/4

Standard:

Identifies terminal strip and simulates removing listed fuses

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: When location of proper Fuse is indicated the Fuse has been removed

Performance Step 4:

Critical ☒ Not Critical

- d. **LOCATE** Terminal Strip CC inside 1-PNLA-009-0017, Bay 2, Rear.
- e. **REMOVE** the following fuses (located at bottom of terminal strip CC, 1-PNLA-009-0017):

RPS BUS "B"

BLOCK	NUMBER	FUSE ID
CC	FOUR (4)	1-FU1-085-0037BA
CC	FIVE (5)	1-FU1-085-0039B/2
CC	SIX (6)	1-FU1-085-0039B/3
CC	SEVEN (7)	1-FU1-085-0039B/4

Standard:

Identifies terminal strip and simulates removing listed fuses

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: When location of proper Fuse is indicated the Fuse has been removed

Performance Step 5:

Critical _ Not Critical X

f. WHEN ALL fuses are removed, THEN **NOTIFY** Unit Operator.

Standard:

Notifies Unit 1 Operator All RPS Fuse removed

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: Acknowledge Notification, SRO Does not direct replacement of fuses

END OF TASK

STOP TIME_____

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: i

TASK NUMBER: U-000-EM-19

TASK TITLE: 2-EOI Appendix-1A Removal of RPS SCRAM Fuses

K/A NUMBER: 212000 A2.20 K/A RATING: RO 4.1 SRO 4.2

TASK STANDARD: Simulate removal of SCRAM Fuses IAW 2-EOI Appendix-1A

LOCATION OF PERFORMANCE: Plant

REFERENCES/PROCEDURES NEEDED: 2-EOI Appendix-1A

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are the Extra Operator. The Unit 2 reactor has scrammed and all control rods did not fully insert. All eight scram solenoid lights on Panel 9-5 are still illuminated. EOI-1 has been entered and followed to RC/Q-23. The Scram Discharge Volume Vent/Drain Valves indicate closed on panel 2-9-5.

INITIATING CUE: The Unit Supervisor directs you to remove the RPS scram solenoid fuses in accordance with 2-EOI Appendix 1A, Removal and Replacement of RPS Scram Solenoid Fuses.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are the Extra Operator. The Unit 2 reactor has scrammed and all control rods did not fully insert. All eight scram solenoid lights on Panel 9-5 are still illuminated. EOI-1 has been entered and followed to RC/Q-23. The Scram Discharge Volume Vent/Drain Valves indicate closed on panel 2-9-5.

INITIATING CUE: The Unit Supervisor directs you to remove the RPS scram solenoid fuses in accordance with 2-EOI Appendix 1A, Removal and Replacement of RPS Scram Solenoid Fuses.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

Critical __ Not Critical X

1. **VERIFY CLOSED** Scram Discharge Volume Vent and Drain Valves at the SCRAM DISCHARGE VOLUME VENT/DRAIN VLVS display on panel 9-5.

Standard:

Given in initial conditions

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical __ Not Critical X

2. **DISPATCH** personnel to Unit 2 Auxiliary Instrument Room to perform the following:
 - a. **REFER** to Attachment 1 and **OBTAIN** fuse pullers from EOI Equipment Storage box.

Standard:

Simulate unlocking EOI Equipment storage and obtaining fuse pullers

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: When location of EOI Storage Box identified, Operator has the fuse pullers

Performance Step 3:

Critical ☒ Not Critical

- b. **LOCATE** Terminal Strip CC inside Panel 9-15, Bay 2, Rear.
- c. **REMOVE** the following fuses (located at bottom of terminal strip CC, Panel 9-15):

RPS BUS "A"

BLOCK	NUMBER	FUSE ID
CC	FOUR (4)	2-FU1-085-0037AA
CC	FIVE (5)	2-FU1-085-0039A/2
CC	SIX (6)	2-FU1-085-0039A/3
CC	SEVEN (7)	2-FU1-085-0039A/4

Standard:

Identifies terminal strip and simulates removing listed fuses

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: When location of proper Fuse is indicated the Fuse has been removed

Performance Step 4:

Critical ☒ Not Critical

- d. **LOCATE** Terminal Strip CC inside Panel 9-17, Bay 2, Rear.
- e. **REMOVE** the following fuses (located at bottom of terminal strip CC, Panel 9-17):

RPS BUS "B"

BLOCK	NUMBER	FUSE ID
CC	FOUR (4)	2-FU1-085-0037BA
CC	FIVE (5)	2-FU1-085-0039B/2
CC	SIX (6)	2-FU1-085-0039B/3
CC	SEVEN (7)	2-FU1-085-0039B/4

Standard:

Identifies terminal strip and simulates removing listed fuses

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: When location of proper Fuse is indicated the Fuse has been removed

Performance Step 5:

Critical _ Not Critical X

f. WHEN ALL fuses are removed, THEN **NOTIFY** Unit Operator.

Standard:

Notifies Unit 2 Operator All RPS Fuse removed

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: Acknowledge Notification, SRO Does not direct replacement of fuses

END OF TASK

STOP TIME_____

C

C

C

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: i

TASK NUMBER: U-000-EM-19

TASK TITLE: 3-EOI Appendix-1A Removal of RPS SCRAM Fuses

K/A NUMBER: 212000 A2.20 K/A RATING: RO 4.1 SRO 4.2

TASK STANDARD: Simulate removal of SCRAM Fuses IAW 3-EOI Appendix-1A

LOCATION OF PERFORMANCE: Plant

REFERENCES/PROCEDURES NEEDED: 3-EOI Appendix-1A

VALIDATION TIME: 10 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are the Extra Operator. The Unit 3 reactor has scrammed and all control rods did not fully insert. All eight scram solenoid lights on Panel 9-5 are still illuminated. EOI-1 has been entered and followed to RC/Q-23. The Scram Discharge Volume Vent/Drain Valves indicate closed on panel 3-9-5.

INITIATING CUE: The Unit Supervisor directs you to remove the RPS scram solenoid fuses in accordance with 3-EOI Appendix 1A, Removal and Replacement of RPS Scram Solenoid Fuses.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are the Extra Operator. The Unit 3 reactor has scrammed and all control rods did not fully insert. All eight scram solenoid lights on Panel 9-5 are still illuminated. EOI-1 has been entered and followed to RC/Q-23. The Scram Discharge Volume Vent/Drain Valves indicate closed on panel 3-9-5.

INITIATING CUE: The Unit Supervisor directs you to remove the RPS scram solenoid fuses in accordance with 3-EOI Appendix 1A, Removal and Replacement of RPS Scram Solenoid Fuses.

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

Critical __ Not Critical X

1. **VERIFY CLOSED** Scram Discharge Volume Vent and Drain Valves at the SCRAM DISCHARGE VOLUME VENT/DRAIN VLVS display on panel 9-5.

Standard:

Given in initial conditions

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical __ Not Critical X

2. **DISPATCH** personnel to Unit 3 Auxiliary Instrument Room to perform the following:
 - a. **REFER** to Attachment 1 and **OBTAIN** fuse pullers from EOI Equipment Storage box.

Standard:

Simulate unlocking EOI Equipment storage and obtaining fuse pullers

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: When location of EOI Storage Box identified, Operator has the fuse pullers

Performance Step 3:

Critical ☒ Not Critical

- b. **LOCATE** Terminal Strip CC inside Panel 9-15, Bay 2, Rear.
- c. **REMOVE** the following fuses (located at bottom of terminal strip CC, Panel 9-15):

RPS BUS "A"

BLOCK	NUMBER	FUSE ID
CC	FOUR (4)	3-FU1-085-0037AA
CC	FIVE (5)	3-FU1-085-0039A/2
CC	SIX (6)	3-FU1-085-0039A/3
CC	SEVEN (7)	3-FU1-085-0039A/4

Standard:

Identifies terminal strip and simulates removing listed fuses

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: When location of proper Fuse is indicated the Fuse has been removed

Performance Step 4:

Critical ☒ Not Critical

- d. **LOCATE** Terminal Strip CC inside Panel 9-17, Bay 2, Rear.
- e. **REMOVE** the following fuses (located at bottom of terminal strip CC, Panel 9-17):

RPS BUS "B"

BLOCK	NUMBER	FUSE ID
CC	FOUR (4)	3-FU1-085-0037BA
CC	FIVE (5)	3-FU1-085-0039B/2
CC	SIX (6)	3-FU1-085-0039B/3
CC	SEVEN (7)	3-FU1-085-0039B/4

Standard:

Identifies terminal strip and simulates removing listed fuses

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: When location of proper Fuse is indicated the Fuse has been removed

Performance Step 5:

Critical _ Not Critical X

f. WHEN ALL fuses are removed, THEN **NOTIFY** Unit Operator.

Standard:

Notifies Unit 3 Operator All RPS Fuse removed

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: Acknowledge Notification, SRO Does not direct replacement of fuses

END OF TASK

STOP TIME _____

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: j

TASK NUMBER: U-001-AL-06

TASK TITLE: Field actions for stuck open SRV

K/A NUMBER: 239002 A2.03 K/A RATING: RO 4.1 SRO 4.2

TASK STANDARD: Stuck Open SRV is closed when power is removed from the SRV by opening the breakers

LOCATION OF PERFORMANCE: Plant

REFERENCES/PROCEDURES NEEDED: 2-AOI-1-1

VALIDATION TIME: 25 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are an Operator, the Unit Supervisor has entered 2-AOI-1-1 Relief Valve Stuck Open. Control Room actions to close SRV 2-PCV-1-22 have been unsuccessful. Reactor Power is 85%.

INITIATING CUE: The Unit Supervisor directs you to attempt to close SRV 2-PCV-1-22 from outside the Control Room in accordance with 2-AOI-1-1 step 4.2.3[2].

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are an Operator, the Unit Supervisor has entered 2-AOI-1-1 Relief Valve Stuck Open. Control Room actions to close SRV 2-PCV-1-22 have been unsuccessful. Reactor Power is 85%.

INITIATING CUE: The Unit Supervisor directs you to attempt to close SRV 2-PCV-1-22 from outside the Control Room in accordance with 2-AOI-1-1 step 4.2.3[2].

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

Critical X Not Critical

NOTES

- 1) 2-PCV-1-22 is an ADS Valve
 - 2) 2-PCV-1-22 has two power supplies, it will auto transfer on loss of power and is Normal Seeking.
 - 3) Attachment 1 may be addressed for fuse and breaker information.
- [2] **IF** 2-PCV-1-22 is NOT closed, **THEN PERFORM** the following:
- [2.1] On Panel 2-25-32 **PLACE** the associated transfer switch MAIN STM LINE B RELIEF VALVE XFR, 2-XS-1-22 in EMERG position.

Standard:

Simulate placing 2-XS-1-22 in emergency

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: When simulated 2-XS-1-22 is in Emergency, Reactor Pressure is Stable, Green light On and Red light Off for SRV 1-22.

Performance Step 2:

Critical ☐ Not Critical ☒

[2.2] IF the SRV does **NOT** close, **THEN PERFORM** the following while **OBSERVING** the indications for the 2-PCV-1-22 on the Acoustic Monitor:

- **CYCLE** the MAIN STM LINE B RELIEF VALVE, 2-HS-1-22C to the following positions several times.

CLOSE/AUTO to OPEN to CLOSE/AUTO

Standard:

Simulates cycling 2-HS-1-22C from CLOSE/AUTO to OPEN to CLOSE/AUTO

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 2-HS-1-22C is in CLOSE/AUTO to OPEN to CLOSE/AUTO Switch is being cycled, Red light On and Green light Off when switch is in Open and Green light On and Red light Off when switch is in Close/Auto. Reactor Pressure remains stable, when Control Room called SRV fails to close or remains open

Performance Step 3:

*Critical ☒ Not Critical

[2.3] IF the SRV does **NOT** close, **THEN PERFORM** the following:

- A. **VERIFY** the MAIN STM LINE B RELIEF VALVE, 2-HS-1-22C, in the CLOSE/AUTO position.
- *B. **PLACE** the associated transfer switch MAIN STM LINE B RELIEF VALVE XFR, 2-XS-1-22 in NORM position .

Standard:

Simulates verifying 2-HS-1-22C is in Close/Auto and simulates placing 2-XS-1-22 in Norm

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 2-HS-1-22C is in Close/Auto and 2-XS-1-22 is in Norm, Green light Off. Use the preferred method to remove power from SRV 2-PCV-1-22.

Performance Step 4:

Critical X Not Critical

[2.4] **IF** the SRV does **NOT** close, **THEN REMOVE** the power from 2-PCV-1-22 by performing one of the following: (Opening breakers are the preferred method)

A. **OPEN** the following breakers: (Preferred method)

- 2A 250V RMOV, Compartment 11C2
- 2B 250V RMOV, Compartment 1C1

Standard:

Simulates opening Compartment 11C2 at 2A 250V RMOV and Compartment 1C1 at 2B 250V RMOV

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: 11C2 at 2A 250V RMOV is open and 1C1 at 2B 250V RMOV is open.
When Control Room called SRV is Closed. **If Operator simulates closing breakers, breakers are closed SRV is Open. JPM Failure**

STOP TIME_____

END OF TASK

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: j

TASK NUMBER: U-001-AL-06

TASK TITLE: Field actions for stuck open SRV

K/A NUMBER: 239002 A2.03 K/A RATING: RO 4.1 SRO 4.2

TASK STANDARD: Stuck Open SRV is closed when power is removed from the SRV by opening the breakers

LOCATION OF PERFORMANCE: Plant

REFERENCES/PROCEDURES NEEDED: 3-AOI-1-1

VALIDATION TIME: 25 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are an Operator, the Unit Supervisor has entered 3-AOI-1-1 Relief Valve Stuck Open. Control Room actions to close SRV 3-PCV-1-22 have been unsuccessful. Reactor Power is 85%.

INITIATING CUE: The Unit Supervisor directs you to attempt to close SRV 3-PCV-1-22 from outside the Control Room in accordance with 3-AOI-1-1 step 4.2.3[2].

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are an Operator, the Unit Supervisor has entered 3-AOI-1-1 Relief Valve Stuck Open. Control Room actions to close SRV 3-PCV-1-22 have been unsuccessful. Reactor Power is 85%.

INITIATING CUE: The Unit Supervisor directs you to attempt to close SRV 3-PCV-1-22 from outside the Control Room in accordance with 3-AOI-1-1 step 4.2.3[2].

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

Critical X Not Critical

NOTES

- 1) 3-PCV-1-22 is an ADS Valve
 - 2) 3-PCV-1-22 has two power supplies, it will auto transfer on loss of power and is Normal Seeking.
 - 3) Attachment 1 may be addressed for fuse and breaker information.
- [2] **IF** 3-PCV-1-22 is NOT closed, **THEN PERFORM** the following:
- [2.1] On Panel 3-25-32 **PLACE** the associated transfer switch MAIN STM LINE B RELIEF VALVE XFR, 3-XS-1-22 in EMERG position.

Standard:

Simulate placing 3-XS-1-22 in emergency

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: When simulated 3-XS-1-22 is in Emergency, Reactor Pressure is Stable, Green light On and Red light Off for SRV 1-22.

Performance Step 2:

Critical ☐ Not Critical ☒

[2.2] **IF** the SRV does **NOT** close, **THEN PERFORM** the following while **OBSERVING** the indications for the 3-PCV-1-22 on the Acoustic Monitor:

- **CYCLE** the MAIN STM LINE B RELIEF VALVE, 3-HS-1-22C to the following positions several times.

CLOSE/AUTO to OPEN to CLOSE/AUTO

Standard:

Simulates cycling 3-HS-1-22C from CLOSE/AUTO to OPEN to CLOSE/AUTO

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 3-HS-1-22C is in CLOSE/AUTO to OPEN to CLOSE/AUTO Switch is being cycled, Red light On and Green light Off when switch is in Open and Green light On and Red light Off when switch is in Close/Auto. Reactor Pressure remains stable, when Control Room called SRV fails to close or remains open

Performance Step 3:

*Critical ☒ Not Critical

[2.3] **IF** the SRV does **NOT** close, **THEN PERFORM** the following:

- A. **VERIFY** the MAIN STM LINE B RELIEF VALVE, 3-HS-1-22C, in the CLOSE/AUTO position.
- *B. **PLACE** the associated transfer switch MAIN STM LINE B RELIEF VALVE XFR, 3-XS-1-22 in NORM position .

Standard:

Simulates verifying 3-HS-1-22C is in Close/Auto and simulates placing 3-XS-1-22 in Norm

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 3-HS-1-22C is in Close/Auto and 3-XS-1-22 is in Norm, Green light Off. Use the preferred method to remove power from SRV 3-PCV-1-22.

Performance Step 4:

Critical X Not Critical

[2.4] **IF** the SRV does **NOT** close, **THEN REMOVE** the power from 3-PCV-1-22 by performing one of the following: (Opening breakers are the preferred method)

A. **OPEN** the following breakers: (Preferred method)

- 3A 250V RMOV, Compartment 11C2
- 3B 250V RMOV, Compartment 1C1

Standard:

Simulates opening Compartment 11C2 at 3A 250V RMOV and Compartment 1C1 at 3B 250V RMOV

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: 11C2 at 3A 250V RMOV is open and 1C1 at 3B 250V RMOV is open.
When Control Room called SRV is Closed. **If Operator simulates closing breakers, breakers are closed SRV is Open. JPM Failure**

STOP TIME _____

END OF TASK

C

C

C

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: j

TASK NUMBER: U-001-AL-06

TASK TITLE: Field actions for stuck open SRV

K/A NUMBER: 239002 A2.03 K/A RATING: RO 4.1 SRO 4.2

TASK STANDARD: Stuck Open SRV is closed when power is removed from the SRV by
opening the breakers

LOCATION OF PERFORMANCE: Plant

REFERENCES/PROCEDURES NEEDED: 1-AOI-1-1

VALIDATION TIME: 25 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are an Operator, the Unit Supervisor has entered 1-AOI-1-1 Relief Valve Stuck Open. Control Room actions to close SRV 1-PCV-1-22 have been unsuccessful. Reactor Power is 85%.

INITIATING CUE: The Unit Supervisor directs you to attempt to close SRV 1-PCV-1-22 from outside the Control Room in accordance with 1-AOI-1-1 step 4.2.3[2].

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are an Operator, the Unit Supervisor has entered 1-AOI-1-1 Relief Valve Stuck Open. Control Room actions to close SRV 1-PCV-1-22 have been unsuccessful. Reactor Power is 85%.

INITIATING CUE: The Unit Supervisor directs you to attempt to close SRV 1-PCV-1-22 from outside the Control Room in accordance with 1-AOI-1-1 step 4.2.3[2].

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

Critical ☒ Not Critical

NOTES

- 1) 1-PCV-1-22 is an ADS Valve
- 2) 1-PCV-1-22 has two power supplies, it will auto transfer on loss of power and is Normal Seeking.
- 3) Attachment 1 may be addressed for fuse and breaker information.

[2] **IF** 1-PCV-1-22 is NOT closed, **THEN PERFORM** the following:

[2.1] On Panel 1-25-32 **PLACE** the associated transfer switch MAIN STM LINE B RELIEF VALVE XFR, 1-XS-1-22 in EMERG position.

Standard:

Simulate placing 1-XS-1-22 in emergency and calls Control Room to check whether SRV remains Open

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: When simulated 1-XS-1-22 is in Emergency, Reactor Pressure is Stable, Green light On and Red light Off for SRV 1-22.

Performance Step 2:

Critical ☐ Not Critical ☒

[2.2] IF the SRV does NOT close, THEN PERFORM the following while
OBSERVING the indications for the 1-PCV-1-22 on the Acoustic Monitor:

- CYCLE the MAIN STM LINE B RELIEF VALVE, 1-HS-1-22C to the following positions several times.

CLOSE/AUTO to OPEN to CLOSE/AUTO

Standard:

Simulates cycling 1-HS-1-22C from CLOSE/AUTO to OPEN to CLOSE/AUTO

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 1-HS-1-22C is in CLOSE/AUTO to OPEN to CLOSE/AUTO Switch is being cycled, Red light On and Green light Off when switch is in Open and Green light On and Red light Off when switch is in Close/Auto. Reactor Pressure remains stable, when Control Room called SRV fails to close or remains open

Performance Step 3:

*Critical ☒ Not Critical

[2.3] IF the SRV does NOT close, THEN PERFORM the following:

- A. VERIFY the MAIN STM LINE B RELIEF VALVE, 1-HS-1-22C, in the CLOSE/AUTO position.
- *B. PLACE the associated transfer switch MAIN STM LINE B RELIEF VALVE XFR, 1-XS-1-22 in NORM position .

Standard:

Simulates verifying 1-HS-1-22C is in Close/Auto and simulates placing 1-XS-1-22 in Norm

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 1-HS-1-22C is in Close/Auto and 1-XS-1-22 is in Norm, Green light Off. Use the preferred method to remove power from SRV 1-PCV-1-22.

Performance Step 4:

Critical X Not Critical

[2.4] **IF** the SRV does **NOT** close, **THEN REMOVE** the power from 1-PCV-1-22 by performing one of the following: (Opening breakers are the preferred method)

A. **OPEN** the following breakers: (Preferred method)

- 1A 250V RMOV, Compartment 11C2
- 1B 250V RMOV, Compartment 1C1

Standard:

Simulates opening Compartment 11C2 at 1A 250V RMOV and Compartment 1C1 at 1B 250V RMOV

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: 11C2 at 1A 250V RMOV is open and 1C1 at 1B 250V RMOV is open.
When Control Room called SRV is Closed. **If Operator simulates closing breakers, breakers are closed SRV is Open. JPM Failure**

STOP TIME_____

END OF TASK

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: k (25i op6)

TASK NUMBER: U-000-SS-30

TASK TITLE: Operator 6 Manual Actions 0-SSI-25I

K/A NUMBER: 600000 AA2.16 K/A RATING: RO 3.0 SRO 3.5

TASK STANDARD: Operator 6 Manual Actions 0-SSI-25I section 1.0 completed

LOCATION OF PERFORMANCE: Plant

REFERENCES/PROCEDURES NEEDED: 0-SSI-25I

VALIDATION TIME: 30 minutes

MAX. TIME ALLOWED: 10 minutes for step 1.1, 20 minutes for step 1.2, 20 minutes for step 2.1 to 2.3, 10 minutes for step 3.1, 20 minutes for step 3.2, 20 minutes for step 4.

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ___ NO ___

RESULTS: SATISFACTORY ___ UNSATISFACTORY ___

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are Operator 6, the plant is operating in 0-SSI-25I Turbine Building, Cable Tunnel, Intake Pumping Station and Radwaste Building.

INITIATING CUE: The Unit Supervisor directs you as Operator 6 to commence Attachment 6 Operator 6 Manual Actions of 0-SSI-25I.

Time Critical

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are Operator 6, the plant is operating in 0-SSI-25I Turbine Building, Cable Tunnel, Intake Pumping Station and Radwaste Building.

INITIATING CUE: The Unit Supervisor directs you as Operator 6 to commence Attachment 6 Operator 6 Manual Actions of 0-SSI-25I.

Time Critical

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

*Critical X Not Critical

NOTE

Performance of this section will cause the Diesel Generators to Start and Tie onto their respective 4KV Shutdown Board. The relay operations with subsequent output breaker closure are an expected result of aligning the board normal feeder breakers to the trip position.

[1] **PROCEED TO** 4KV Shutdown BD 3EA, AND **PERFORM** the following:

NOTE

If pump fails to start, pushbutton on breaker must be used.

[1.1] **PROCEED TO** Compt 5, 0-BKR-023-0085 RHRSW PUMP A3, AND **PERFORM** the following:

(10 Min)

*[1.1.1] **PLACE** RHRSW PUMP A3 EMER/NORM CONT TRANS SWITCH, 0-43-023-0085 in EMERG.

[1.1.2] **PLACE** RHRSW PUMP A3 EECW NORTH HDR, 0-HS-023-0085C, in CLOSE.

[1.1.3] **VERIFY** RHRSW Pump A3 has started by observing breaker ammeter indications.

Standard:

Simulates placing 0-43-023-0085 in Emergency and 0-HS-023-0085C in Close

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 0-43-023-0085 is in Emergency and 0-HS-023-0085C is in Close, Red Light Off, Green Light On, Yellow Light Remained On, If asked no breaker trips indicated.

Performance Step 2:

* Critical X Not Critical

NOTE

*If pump fails to start, pushbutton on breaker must be used.

[1.1] **PROCEED TO** Compt 5, 0-BKR-023-0085 RHRSW PUMP A3, AND
PERFORM the following:

[1.1.3] **VERIFY** RHRSW Pump A3 has started by observing breaker ammeter
indications.

Standard:

Simulates depressing Close pushbutton on Compt 5 RHRSW PUMP A3

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: Pushbutton depressed, Red Light On, Green Light Off, Yellow light Off,
Yellow light On, Amps pegged high, Amps currently reading 50 Amps

STOP TIME _____

START TIME_____

Performance Step 3:

Critical X Not Critical

(20 Min)

[1.2] **PROCEED TO** Compt 7, 3-BKR-211-03EA/007 NORM FDR BKR 1334 TIE FROM BKR 1326 4KV UNIT BD 3A, AND **PERFORM** the following:

[1.2.1] **PLACE** BKR 1334 EMER APP R ISOL SEL SWITCH (43AR),
3-43BU-211-03EA/07, in EMER.

[1.2.2] **PLACE** BREAKER CONTROL TRANSFER SWITCH 43,
3-43-211-03EA/07, in EMER.

[1.2.3] **PLACE** BREAKER CONTROL SWITCH, 3-HS-211-03EA/07B, in
TRIP.

Standard:

Simulates placing 3-43BU-211-03EA/07 and 3-43-211-03EA/07 in Emergency, and
3-HS-211-03EA/07B in Trip

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: 3-43BU-211-03EA/07 and 3-43-211-03EA/07 is in Emergency,
3-HS-211-03EA/07B is in Trip. Green light On, Red Light Off, Green Flag on
switch.

STOP TIME_____

START TIME _____

Performance Step 4:

Critical X Not Critical

[2] **PROCEED TO** 4KV Shutdown Board 3EC.

(20 Min)

[2.1] **PROCEED TO** Compt 12, 3-BKR-211-03EC/012 NORM FDR BKR 1338 TIE FROM BKR 1332 4KV UNIT BD 3B, AND **PERFORM** the following:

[2.1.1] **PLACE** BKR 1338 EMER APP R ISOL SEL SWITCH (43AR),
3-43BU-211-03EC/12, in EMER.

[2.1.2] **PLACE** BREAKER CONTROL TRANSFER SWITCH 43,
3-43-211-03EC/12, in EMERG.

[2.1.3] **PLACE** BREAKER CONTROL SWITCH 52, 3-HS-211-03EC/12B, in
TRIP.

Standard:

Simulates placing 3-43BU-211-03EC/12 and 3-43-211-03EC/12 in Emergency and
3-HS-211-03EC/12B in Trip

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: 3-43BU-211-03EC/12 and 3-43-211-03EC/12 is in Emergency,
3-HS-211-03EC/12B is in Trip, Green light On, Red Light Off, Green Flag on
switch.

Performance Step 5:

Critical ☒ Not Critical

[2.2] **PROCEED TO** Compt 8, 0-BKR-023-0015 RHRSW PUMP B1, AND **PERFORM** the following:

[2.2.1] **PLACE** RHRSW PUMP B1 EMER/NORM CONT TRANS SWITCH, 0-43-023-0015, in EMERG.

[2.2.2] **PLACE** RHRSW PUMP B1 MOTOR, 0-HS-023-0015C, in TRIP.

Standard:

Simulates placing 0-43-023-0015 in Emergency, and 0-HS-023-0015C in Trip

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 0-43-023-0015 is in Emergency, 0-HS-023-0015C is in Trip, Green light On, Red Light Off, Green Flag on switch.

Performance Step 6:

Critical ☒ Not Critical

[2.3] **PROCEED TO** Compt 9, 3-BKR-024-0016 RAW COOLING WATER PUMP 3D, AND **PERFORM** the following:

[2.3.1] **PLACE** BREAKER CONTROL TRANSFER SWITCH, 3-XS-024-0016, in EMERG.

[2.3.2] **PLACE** RCW PUMP 3D, 3-HS-024-0016C, in TRIP.

Standard:

Simulates placing 3-XS-024-0016 in Emergency and 3-HS-024-0016C in Trip

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 3-XS-024-0016 is in Emergency, 0-HS-023-0005C is in Trip, Green light On, Red Light Off, Green Flag on switch.

STOP TIME_____

START TIME_____

Performance Step 7:

* Critical X Not Critical

[3] **PROCEED TO** 4KV Shutdown Board 3EB.

NOTE

If Pump fails to start, pushbuttons on breaker must be used.

[3.1] **PROCEED TO** Compt 10, 0-BKR-023-0091 RHRSW PUMP C3 AND
PERFORM the following:

(10 Min)

*[3.1.1] **PLACE** RHRSW PUMP C3 EMER/NORM CONT TRANS SWITCH,
0-43-023-0091, in EMERG.

*[3.1.2] **PLACE** RHRSW PUMP C3 EECW NORTH HEADER, 0-HS-23-91C,
in CLOSE.

[3.1.3] **VERIFY** RHRSW Pump C3 has started by observing breaker ammeter
indications.

Standard:

Simulates placing 0-43-023-0091 in Emergency and 0-HS-23-91C in Close

SAT__ UNSAT__ N/A__ COMMENTS:_____

CUE: 0-43-023-0091 is in Emergency, 0-HS-23-91C is in Close, Red Light On,
Green Light Off, Yellow light off, Yellow light On, Amps pegged high, Amps
currently reading 50 Amps

STOP TIME_____

START TIME_____

Performance Step 8:

Critical X Not Critical

(20 Min)

[3.2] **PROCEED TO** Compt 14, 3-BKR-211-03EB/014 BKR 1336 NORM FDR FROM 4KV UNIT BD 3A BKR 1326 & 4KV S/D BD 3EA BKR 1334, AND **PERFORM** the following:

[3.2.1] **PLACE** BKR 1336 EMER APP R ISOL SEL SWITCH (43AR), 3-43BU-211-03EB/14, in EMER.

[3.2.2] **PLACE** BREAKER CONTROL TRANSFER SWITCH 43, 3-43-211-03EB/14, in EMERG.

[3.2.3] **PLACE** BREAKER CONTROL SWITCH, 3-HS-211-03EB/14B, in TRIP.

Standard:

Simulates placing 3-43BU-211-03EB/14 and 3-43-211-03EB/14 in Emergency and 3-HS-211-03EB/14B in Trip

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: 3-43BU-211-03EB/14 and 3-43-211-03EB/14 is in Emergency, 3-HS-211-03EB/14B is in Trip, Green light On, Red Light Off, Green Flag on switch.

STOP TIME_____

START TIME _____

Performance Step 9:

Critical X Not Critical

[4] **PROCEED TO** 4KV Shutdown Board 3ED.

[4.1] **PROCEED TO** Compt 8, 3-BKR-211-03ED/008 NORM SUPPLY BKR 1342
TIE FROM BKR 1332 4KV UNIT BD 3B VIA PNL 11, 4KV S/D BD 3EC, AND
PERFORM the following:

(20 Min)

[4.1.1] **PLACE** BKR 1342 EMER APP R ISOL SEL SWITCH (43AR),
3-43BU-211-03ED/08, in EMER.

[4.1.2] **PLACE** BREAKER CONTROL TRANSFER SWITCH 43,
3-43-211-03ED/08, in EMERG.

[4.1.3] **PLACE** BREAKER CONTROL SWITCH, 3-HS-211-03ED/08B, in
TRIP.

Standard:

Simulates placing 3-43BU-211-03ED/08 and 3-43-211-03ED/08 in Emergency and
3-HS-211-03ED/08B in Trip

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 3-43BU-211-03ED/08 and 3-43-211-03ED/08 is in Emergency,
3-HS-211-03ED/08B is in Trip, Green light On, Red light Off, Green flag on
switch.

Performance Step 10:

Critical X Not Critical

[4.2] **PROCEED TO** Compt 6, 0-BKR-023-0023 RHRSW PUMP D1, AND
PERFORM the following:

[4.2.1] **PLACE** RHRSW PUMP D1 EMER/NORM CONT TRANS SWITCH,
0-43-023-0023, in EMERG.

[4.2.2] **PLACE** RHRSW PUMP D1, 0-HS-23-23C, in TRIP.

Standard:

Simulates placing 0-43-023-0023 in Emergency and 0-HS-23-23C in Trip

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 0-43-023-0023 is in Emergency, 0-HS-23-23C is in Trip, Green light On, Red
light Off and Green flag on switch

STOP TIME _____

Performance Step 11:

Critical _ Not Critical X

[5] **NOTIFY** Unit 3 Unit Supervisor of the completion of this section.

[6] **PROCEED TO** 4KV Shutdown Board A in preparation of performing Section 2.0.

Standard:

Notifies Unit 3 Unit Supervisor

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: Another Operator will continue with section 2.0
END OF TASK

C

C

C

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: k (16 op6)

TASK NUMBER: U-000-SS-08

TASK TITLE: Operator 3 Manual Actions 0-SSI-16

K/A NUMBER: 600000 AA2.16 K/A RATING: RO 3.0 SRO 3.5

TASK STANDARD: Operator 3 Manual Actions 0-SSI-16 section 2.0 and 3.0 steps 1 and 2
completed

LOCATION OF PERFORMANCE: Plant

REFERENCES/PROCEDURES NEEDED: 0-SSI-16

VALIDATION TIME: 15 minutes

MAX. TIME ALLOWED: 20 minutes for section 2.0

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: You are Operator 3, the plant is operating in 0-SSI-16 Control Building Fire EL 593 Through EL 617. Operator 3 Manual Actions Section 1.0 is complete.

INITIATING CUE: The Unit Supervisor directs you as Operator 3 to continue Attachment 3 at section 2.0 of 0-SSI-16.

Time Critical

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are Operator 3, the plant is operating in 0-SSI-16 Control Building Fire EL 593 Through EL 617. Operator 3 Manual Actions Section 1.0 is complete.

INITIATING CUE: The Unit Supervisor directs you as Operator 3 to continue Attachment 3 at section 2.0 of 0-SSI-16.

Time Critical

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

*Critical X Not Critical

2.0 START RHR PUMP 2C

(20 Min)

[1] Notification has been received from the Unit 2 Unit Supervisor to perform this section.

NOTE

If RHR pump fails to start, pushbutton on breaker must be used.

[2] **PROCEED TO** 4160V Shutdown Board B, Compt 17, 2-BKR-074-0016 RESIDUAL HEAT REMOVAL PUMP 2C, AND **PERFORM** the following:

*[2.1] **VERIFY** RHR PUMP C BREAKER CONTROL TRANSFER SWITCH 43, 2-43-074-0016, in EMERG.

[2.2] **PLACE** RHR PUMP 2C, 2-HS-074-0016C, in CLOSE.

[2.3] **VERIFY** RHR Pump 2C has started by observing breaker AMMETER indications.

Standard:

Simulates placing 2-43-074-0016 in Emergency and 2-HS-074-0016C in Close

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 2-43-074-0016 is in Emergency and 2-HS-074-0016C is in Close, No AMPS are indicated, Red light OFF and Green Light On Breaker failed to CLOSE

Performance Step 2:

*Critical ☒ Not Critical

2.0 START RHR PUMP 2C

(20 Min)

***NOTE**

*If RHR pump fails to start, pushbutton on breaker must be used.

[2] **PROCEED TO** 4160V Shutdown Board B, Compt 17, 2-BKR-074-0016 RESIDUAL HEAT REMOVAL PUMP 2C, AND **PERFORM** the following:

[2.3] **VERIFY** RHR Pump 2C has started by observing breaker AMMETER indications.

Standard:

Simulates depressing pushbutton on 2-BKR-074-0016 and verifies Amps

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: Breaker 2-BKR-074-0016 pushbutton is depressed, AMPS pegged high, Red light ON and Green Light OFF Breaker CLOSED, current AMP reading is 180 AMPS

STOP TIME _____

Performance Step 3:

Critical _ Not Critical X

[3] **NOTIFY** Unit 2 Unit Supervisor of completion of this section.

[4] **REMAIN** at 4160V Shutdown Board B in preparation of performing Section 3.0.

Standard:

Notifies Unit 2 Unit Supervisor and proceeds to 4160 SD BD B

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: Acknowledge notification and Notify Operator to perform section 3.0

START TIME _____

Performance Step 4:

*Critical ☒ Not Critical

3.0 EECW ALIGNMENT AND START OF UNIT 1 & 2 CONTROL BAY VENTILATION SYSTEM

[1] Notification has been received from the Unit 2 Unit Supervisor to perform this section.

(120 Min)

[1.1] **PROCEED TO** 4160V Shutdown Board B Compt 12C, 0-BKR-067-0049
RHRSW PUMP C1 SPLY TO EECW FCV--67-49, AND **PERFORM** the
following:

*[1.1.1] **PLACE** RHRSW PUMP C1 CROSSTIE VLV TRANSFER,
0-XS-067-0049 in EMERG.

[1.1.2] **VERIFY CLOSED** RHRSW C1 CROSSTIE TO EECW,
0-HS-067-0049C.

Standard:

Simulates placing 0-XS-067-0049 in Emergency and Verifies Closed RHRSW C1
CROSSTIE TO EECW

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: 0-XS-067-0049 is in Emergency and RHRSW C1 Crosstie to EECW Red Light
Off, Green Light On, Valve is Closed

STOP TIME _____

START TIME _____

Performance Step 5:

Critical ☒ Not Critical

(240 Min)

[2] **PROCEED TO** 4160V Shutdown Board B Compt 18, 0-BKR-031-2100 4KV SUPPLY FOR 1&2 CONTROL BAY CHILLER A, AND **PERFORM** the following:

[2.1] **PLACE** CB CHILLER A TRANSFER SWITCH, 0-XS-031-2100A, in EMERG.

[2.2] **PLACE** CONTROL BAY CHILLER A, 0-HS-031-2100B, in CLOSE.

Standard:

Simulates placing 0-XS-031-2100A in Emergency and 0-HS-031-2100B in Close

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: 0-XS-031-2100A is in Emergency and 0-HS-031-2100B is in Close, Breaker Closed, Red Light On Green Light Off, Amps indicate 25 Amps

STOP TIME _____

Performance Step 6:

Critical ☐ Not Critical ☒

[3] **PROCEED TO** the Control Bay Chiller enclosure above the Unit 1 & 2 DG Building.

Standard:

Operator starts to Control Bay Chiller Enclosure

SAT ☐ UNSAT ☐ N/A ☐ COMMENTS: _____

CUE: Another Operator is dispatched to the Control Bay Chiller Enclosure

END OF TASK

C

C

C

OPERATOR: _____

RO _____ SRO _____ DATE: _____

JPM NUMBER: k (16 op6)

TASK NUMBER: U-000-SS-08

TASK TITLE: Operator 6 Manual Actions 0-SSI-16

K/A NUMBER: 600000 AA2.16 K/A RATING: RO 3.0 SRO: 3.5

TASK STANDARD: Operator 6 Manual Actions 0-SSI-16 section 2.0 and 3.0 completed

LOCATION OF PERFORMANCE: Plant

REFERENCES/PROCEDURES NEEDED: 0-SSI-16

VALIDATION TIME: 15 minutes

MAX. TIME ALLOWED: 20 minutes for section 2.0 and 120 minutes for section 3.0.

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES _____ NO _____

RESULTS: SATISFACTORY _____ UNSATISFACTORY _____

SIGNATURE: _____ DATE: _____

EXAMINER

INITIAL CONDITIONS: You are Operator 6, the plant is operating in 0-SSI-16 Control Building Fire EL 593 Through EL 617. Operator 6 Manual Actions Section 1.0 is complete.

INITIATING CUE: The Unit Supervisor directs you as Operator 6 to continue Attachment 6 at section 2.0 of 0-SSI-16.

Time Critical

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

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

INITIAL CONDITIONS: You are Operator 6, the plant is operating in 0-SSI-16 Control Building Fire EL 593 Through EL 617. Operator 6 Manual Actions Section 1.0 is complete.

INITIATING CUE: The Unit Supervisor directs you as Operator 6 to continue Attachment 6 at section 2.0 of 0-SSI-16.

Time Critical

CAUTION: DO NOT OPERATE ANY PLANT EQUIPMENT!

START TIME _____

Performance Step 1:

Critical ☒ Not Critical

2.0 480V REACTOR MOV BOARD 3B ALIGNMENT

(20 Min)

- [1] Notification has been received from the Unit 3 Unit Supervisor to perform this section.
- [2] **PERFORM** the following to align 480V Reactor MOV Board 3B:
 - [2.1] **PROCEED TO** Compt 2A, AND **PLACE** NORMAL FEEDER CONTROL SWITCH, 3-HS-268B/2A-A, in TRIP.
 - [2.2] **PROCEED TO** Compt 16A, AND **PLACE** EMERGENCY FEEDER CONTROL SWITCH, 3-HS-268-B/16A-A, in CLOSE.

Standard:

Simulates placing 3-HS-268B/2A-A in Trip and 3-HS-268-B/16A-A in Close

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 3-HS-268B/2A-A is in Trip, Green light On Red light Off.
3-HS-268-B/16A-A is in Close, Red light On Green Light Off

Performance Step 2:

* Critical ☒ Not Critical

[2.3] **PROCEED TO** Compt 1C, AND **PERFORM** the following:

*[2.3.1] **PLACE** RCIC STM LINE EMER TRANS SWITCH
3-XS-071-0002, in EMERG.

[2.3.2] **VERIFY OPEN** RCIC STM LINE INBD ISOL VALVE,
3-HS-071-0002B.

Standard:

Simulates placing 3-XS-071-0002 in Emergency and verifies RCIC STM LINE INBD
ISOL VALVE Open

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: 3-XS-071-0002 is in Emergency and RCIC Steam Line Inboard Isolation Valve
has Red Light On, Green Light Off

Performance Step 3:

Critical ☒ Not Critical

[2.4] **PROCEED TO** Compt 4C, AND **PLACE** 0-BKR-084-0016A CONTAINMENT
ATMOSPHERE DILUTION SYSTEM B HEATER, breaker in OFF.

Standard:

Simulates placing 0-BKR-084-0016A in Off

SAT__ UNSAT__ N/A __ COMMENTS:_____

CUE: 0-BKR-084-0016A is in Off

STOP TIME_____

Performance Step 4:

Critical ☐ Not Critical ☒

[3] **NOTIFY** Unit 3 Unit Supervisor of completion of this section.

[4] **PROCEED TO** 4160V Shutdown Board 3EA in preparation of performing Section 3.0.

Standard:

Notifies Unit 3 Unit Supervisor and proceeds to 4160 SD BD 3EA

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: Acknowledge notification and Notify Operator to perform section 3.0

START TIME _____

Performance Step 5:

* Critical X Not Critical

3.0 RHR PUMP 3A LOCAL START

(120 Min)

[1] Notification has been received from the Unit 3 Unit Supervisor to perform this section.

NOTE

If RHR pump fails to start, pushbutton on breaker must be used.

[2] **PROCEED TO** 4160V Shutdown Board 3EA, Compt 12, 3-BKR-074-0005 RHR PUMP 3A, **AND PERFORM** the following:

*[2.1] **PLACE** RHR PUMP 3A TRANSFER, 3-43-074-0005, in EMERG.

[2.2] **PLACE** RHR PUMP 3A, 3-HS-074-0005C, in CLOSE.

[2.3] **VERIFY** RHR Pump 3A has started by observing breaker AMMETER indications.

Standard:

Simulates placing 3-43-074-0005 in Emergency and 3-HS-074-0005C in Close

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: 3-43-074-0005 is in Emergency and 3-HS-074-0005C is in Close, No AMPS are indicated, Red light OFF Green Light On Yellow light remained On, If asked No breaker trips are indicated.

Performance Step 6:

* Critical X Not Critical

3.0 RHR PUMP 3A LOCAL START

(120 Min)

***NOTE**

*If RHR pump fails to start, pushbutton on breaker must be used.

[2] **PROCEED TO** 4160V Shutdown Board 3EA, Compt 12, 3-BKR-074-0005 RHR PUMP 3A, AND **PERFORM** the following:

[2.3] **VERIFY** RHR Pump 3A has started by observing breaker AMMETER indications.

Standard:

Simulates depressing pushbutton on 3-BKR-074-0005 and verifies Amps

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: Breaker 3-BKR-074-0005 pushbutton is depressed, AMPS pegged high, Red light ON and Green Light OFF Breaker CLOSED, current AMP reading is 180 AMPS

STOP TIME _____

Performance Step 7:

Critical _ Not Critical X

[3] **NOTIFY** Unit 3 Unit Supervisor of the completion of this section.

[4] **PROCEED TO** 4160 Shutdown Board A in preparation of performing Section 4.0.

Standard:

Notifies Unit 3 Unit Supervisor

SAT__ UNSAT__ N/A __ COMMENTS: _____

CUE: Another Operator will continue with section 4.0
END OF TASK