NEW YORK POWER AUTHORITY
JOB PERFORMANCE MEASURE

S/RO — 21201009F — TASK TITLE: Reset an RPS Scram with Scram Valve Failure to Close
APPL. TO — JPM NUMBER

REV: 2 DATE: 3/6/99 NRC K/A SYSTEM NUMBER: 212000 A4.14 3.8/3.8

JAF TASK NUMBER: 2120101009 JAF QUAL STANDARD NUMBER: 5005.104

ESTIMATED COMPLETION TIME: 10 Minutes

SUBMITTED: _____ OPERATION REVIEW:

APPROVED: _____

CANDIDATE NAME: _____ S.S. NUMBER:

JPM Completion: ( ) Simulated ( ) Performed

Location: ( ) Plant (X) Simulator

DATE PERFORMED: _____ TIME TO COMPLETE: Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: _____
SIGNATURE/PRINTED

CANDIDATE REVIEW: _____
SIGNATURE

REVIEWED BY: _____ DOC. COMPLETE:
PROGRAM ADMINISTER

JOB PERFORMANCE MEASURE
RECORD AND CHECKLIST

S/RO 21201009F

APPL. TO JPM NUMBER

TASK TITLE: (F) Reset an RPS Scram with Scram Valve Failure to Close

Current Update: 03/06/99 (Date) By: MWD (Int.)

Outstanding Items:

_____ Technical Review

_____ Questions and Answers

_____ Procedural Change Required

_____ Additional Information

____ Validation

_____ None

Comments:

Current Update: _____ (Date) By: _____ (Int.)

Previous Revision Dates:

02/10/94
08/29/94

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

S/RO — 21201009F — TASK TITLE: Reset an RPS Scram with Scram Valve Failure to Close
APPL. TO — JPM NUMBER

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. AOP-1, REACTOR SCRAM, Rev. 34

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Initialize the simulator to any full power IC.

B. Insert a manual scram by placing the Mode Switch to SHUTDOWN.

C. Reset ARI.

D. Stabilize RPV level above 177 inches.

E. Manually override the blue scram lights "ON" for control rods 14-43, 30-19, 06-19, and 42-07.

V. EVALUATOR NOTES

A. The candidate should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the candidate that the conditions of each step need only be properly identified and not actually performed.

VI. TASK CONDITIONS

A. The reactor after operating at some power has scrammed. The scram condition has been identified and cleared.

B. All Reactor scram signals are now clear with the exception of the scram discharge volume high level signal.

C. The Shift Manger has directed that the scram be reset.

*** - CRITICAL STEP**

VII. INITIATING CUE

The Reactor has scrammed from power operation. The scram condition has been identified and cleared. The only scram signal present is scram volume high level. The Shift Manager has directed that the scram be reset.

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain a controlled copy of AOP-1, REACTOR SCRAM	The candidate obtains a controlled copy of AOP-1.	SAT / UNSAT
2.	Select the correct section to perform the task.	The candidate selects Section C.2.4 of AOP-1.	SAT / UNSAT
3.	IF ARI actuated, THEN reset ARI.	The candidate observes that ARI is reset by observing the following conditions: Verify closed: a. 030V-201 b. 030V-202 c. 030V-203 d. 030V-204 e. 030V-205 Verify annunciator 09-5-1-35 ATWS ARI TRIP is clear	SAT / UNSAT
4.	Verify annunciator 09-5-1-33 MODE SW IN SHUTDOWN TRIP BYPASSED is in alarm.	The candidate observes that the annunciator window for annunciator 09-5-1-33 is in alarm.	SAT / UNSAT
*5.	Place the SDIV HI LVL TRIP keylock switch in BYPASS.	The candidate places the SDIV HI LVL TRIP switch in BYPASS and verifies annunciator 09-5-1-11, SDIV HI LVL TRIP IN BYPASS in alarm.	SAT / UNSAT
*6.	Place RX SCRAM RESET switch to Group 2 & 3, then to 1 & 4, spring return to NORM.	The candidate places the REACTOR SCRAM RESET selector switch, (5A-S5), momentarily to the GP2 and GP3 position then back thru "NORM" to the GP1 and GP4 position then back to "NORM".	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
7.	Verify RPS A and B SCRAM GROUPS 1, 2, 3 and 4 lights are on.	The candidate verifies the scram has been reset by ensuring that the following lights are lit: A. RPS A Scram Groups 1, 2, 3 and 4 on Panel 09-5; B. RPS B Scram Groups 1, 2, 3 and 4 on Panel 09-5	SAT / UNSAT
*8.	Verify closed all scram inlet and outlet valves using one or a combination of the following methods	The candidate recognizes/reports that several control rod scram inlet and outlet valves have failed to close by observing that blue scram lights are energized.	SAT / UNSAT
9.	IF any scram inlet or outlet valve fails to close, then perform the following: A. Depress the following pushbuttons: · MANUAL SCRAM A · MANUAL SCRAM B B) Investigate cause	The candidate performs the following: A) Depresses the both manual scram pushbuttons B) Observes the following: · Manual scram A, B pushbuttons lights are on · Annunciators 09-5-1-13, 14; RPS A, B MAN SCRAM alarm. · RPS A, B Scram Groups 1,2, 3 and 4 lights are off. C. Reports the success of inserting a manual scram.	SAT / UNSAT
EVALUATOR: Terminate the task at this point			

NEW YORK POWER AUTHORITY
JOB PERFORMANCE MEASURE

S/RO APPL. TO: 20501016F JPM NUMBER

TASK TITLE: (F) Place the RHR System in the Torus Cooling Lineup with a Failure of the Minimum Flow Valve to Close

REV: 2 DATE: 03/03/99 NRC K/A SYSTEM NUMBER: 219000 SG9 4.2/3.

JAF TASK NUMBER: 2050101016 JAF QUAL STANDARD NUMBER: 5010.102

ESTIMATED COMPLETION TIME: 20 minutes

SUBMITTED: _____ OPERATION REVIEW:

APPROVED: _____

CANDIDATE NAME: _____ S.S. NUMBER:

JPM Completion: ( ) Simulated ( ) Performed

Location: ( ) Plant (X) Simulator

DATE PERFORMED: _____ TIME TO COMPLETE: Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: _____
SIGNATURE/PRINTED

CANDIDATE REVIEW: _____
SIGNATURE

REVIEWED BY: _____ DOC. COMPLETE:
PROGRAM ADMINISTER

JOB PERFORMANCE MEASURE
RECORD AND CHECKLIST

S/RO 20501016F
APPL. TO JPM NUMBER

TASK TITLE: (F) Place the RHR System in the Torus Cooling Lineup with a Failure of the Minimum Flow Valve to Close

Current Update: 03/03/99 (Date) By: MWD (Int.)

Outstanding Items:

_____ Technical Review _____ Additional Information

_____ Questions and Answers _____ Validation

_____ Procedural Change Required _____ None

Comments:

Current Update: _____ (Date) By: _____ (Int.)

Previous Revision Dates:

02/22/94
08/29/94

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

S/RO 20501016F
APPL. TO JPM NUMBER

TASK TITLE: (F) Place the RHR System in the Torus Cooling Lineup with a Failure of the Minimum Flow Valve to Close

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. OP-13B, RHR - Containment Control, Rev 2

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Initialize the simulator to any power operation IC.
B. Raise torus water temperature to 81°F.
C. Check closed 10RHR-274.
D. Start RHR Keep Full Pump 2A.
E. Override ON the red open indicating light for the 10MOV-16A, RHR MINIMUM FLOW VALVE, this will cause the valve to indicate intermediate position when system flow causes the valve to shut. During the JPM this override will be removed when the candidate operates the control switch for the MINIMUM FLOW VALVE.

V. EVALUATOR NOTES

A. The candidate should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. The Override must be cleared within several seconds of the candidate operating the control switch for the MINIMUM FLOW VALVE to simulate the valve going shut.

VI. TASK CONDITIONS

A. The reactor is operating normally

B. The torus water temperature is high and must be cooled via the RHR System.

*** - CRITICAL STEP**

VII. INITIATING CUE

"Torus temperature must be lowered. Place the "A" RHR system in the Torus Cooling Mode, using the "A" RHR and "A" RHRSW pumps".

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain a controlled copy of procedure OP-13B. RHR - CONTAINMENT CONTROL	The candidate obtains a controlled copy of OP-13B.	SAT / UNSAT
2.	Review the precautions.	The candidate reviews the precautions making note of any that are applicable.	SAT / UNSAT
3.	Select the correct section to perform the task.	The candidate selects Section D.1 RHR Loop A Torus Cooling Startup of RHR - Containment Control	SAT / UNSAT
4.	IF a LPCI auto-initiation signal is sealed in, THEN perform the following: a) IF RPV water level is LESS THAN zero inches on fuel zone water level indication, THEN place DW & TORUS SPRAY VLV OVERRIDE OF FUEL ZONE LVL 10A-S18A keylock switch in MANUAL OVERRD. b) Place SPRAY CNTRL 10A-S17A switch to MANUAL, spring return to normal. c) Verify white SPRAY PERM 10A-DS67A light is on.	Cue: The LPCI auto-initiation signal is not sealed in.	SAT / UNSAT
*5.	Ensure at least one of the following RHR pumps is running: • RHR PMP 10P-3A • RHR PMP 10P-3C	a) The candidate starts 10P-3A by placing control switch to START. b) Observes that pump amps rise sharply and drop to less then 155 amps as read on ammeter 10P-3A(C). c) Observes that pressure indicator 10PI-20A rises to indicate pressure. d) May note and acknowledge the CORE SPRAY OR RHR PUMP RUNNING annunciator 09-4-1-26 alarms.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
*6.	Open RHR TEST TORUS CLG & SPRAY 10MOV-39A.	The candidate obtains a key from the 09-3 panel and places the keylock control switch for 10MOV-39A to open.	SAT / UNSAT
*7.	Throttle RHR TEST AND TORUS CLG 10MOV-34A to establish desired flow.	The candidate places the control switch for 10MOV-34A to OPEN and throttles to establish desired flow as read on the flow indicator 10FI-133A. **EVALUATOR:** The candidate should minimize RHR pump flow less than 6500 gpm for one pump to prevent high vibration.	SAT / UNSAT
*8.	WHEN RHR Loop A flow is GREATER THAN 1500 gpm, ensure closed MIN FLOW VLV 10MOV-16A.	When flow increases above 1500 gpm the candidate should recognize that the MIN FLOW VALVE, 10MOV-16A does not go full closed by observing the green and red valve indicating lights both remaining lit.	SAT / UNSAT
*9.	Close the MIN FLOW VALVE 10MOV-16A.	The candidate should momentarily take the control switch for the MINIMUM FLOW VALVE, 10MOV-16A to the CLOSE position **EVALUATOR:** The valve will go closed after the operator takes the control switch to the closed position. Signal the simulator operator to clear the override on the OPEN indication.	SAT / UNSAT
10.	Establish RHRSW flow as follows: a) Verify one of the following alarms is clear: • Annunciator 09-4-3-4 RHR SW A OR B DISCH LINE NOT FULL • EPIC-D-134 10LS-105A	The candidate observes that • Annunciator 09-4-3-4 RHRSW A OR B DISCH LINE NOT FULL is cleared or • EPIC-D-134 is not in alarm	SAT / UNSAT
11.	b) Start at least one of the following RHRSW pumps: • RHRSW PMP 10P-1A • RHRSW PMP 10P-1C	The candidate starts the 10P-1A pump by placing the control switch to START. Observes that pump amps go upscale and then return to less than 45 amps as read on ammeter 10P-1A.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
*12.	c) Throttle RHRSW DISCH VLV FROM HX 10MOV-89A to establish 2500 to 4000 gpm per RHRSW pump.	The candidate places the control switch for 10MOV-89A, to OPEN and establishes between 2500 and 4000 gpm of service water flow as read on flow indicator 10FI-132A.	SAT / UNSAT
13.	Close HX A BYP VLV 10MOV-66A.	The candidate places the control switch for 10MOV-66A to CLOSE and hold until valve indicates shut.	SAT / UNSAT
14.	IF RHR Loop A condensate transfer keep full is in service, AND RHR Loop A pressure is LESS THAN condensate transfer pressure, THEN CLOSE 10RHR-274 (RHR Loop A containment spray keep full cond xfer connection valve).	The candidate contacts in-plant operator and asks if RHR Loop A condensate transfer keep full is in service. **EVALUATOR:** Act as in-plant operator and report "RHR Loop A condensate transfer keep-full is not in service".	SAT / UNSAT
EVALUATOR: Terminate the task at this point.			

NEW YORK POWER AUTHORITY
JOB PERFORMANCE MEASURE

S/RO (APPL. TO) | 20601003F (JPM NUMBER) | TASK TITLE: (F) Restoration of HPCI after Auto Initiation and High Level Trip With Failure of 23MOV-19 to Close.

REV: 2 DATE: 10/07/97 NRC K/A SYSTEM NUMBER: 20600 A4.13 4.1/4.0

JAF TASK NUMBER: 2060101003 JAF QUAL STANDARD NUMBER: 5023.103

ESTIMATED COMPLETION TIME: 12 Minutes

SUBMITTED: _____ OPERATION REVIEW: _____

APPROVED: _____

CANDIDATE NAME: _____ S.S. NUMBER: _____

JPM Completion: ( ) Simulated ( ) Performed

Location: ( ) Plant ( ) Simulator

DATE PERFORMED: _____ TIME TO COMPLETE: _____ Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: _____
SIGNATURE/PRINTED

CANDIDATE REVIEW: _____
SIGNATURE

REVIEWED BY: _____ DOC. COMPLETE: _____
PROGRAM ADMINISTER

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

S/RO APPL. TO | 20601003F JPM NUMBER | TASK TITLE: (F) Restoration of HPCI after Auto Initiation and High Level Trip With Failure of 23MOV-19 to Close.

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. OP-15, HIGH PRESSURE COOLANT INJECTION, Rev. 44.

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Initialize simulator to any full power IC.

B. Manually scram the Reactor and stabilize vessel level and pressure.

C. Secure feedwater and prohibit RCIC from starting.

D. Allow HPCI to start and run until high level trip.

E. Allow vessel level to decrease below 222.5 inches.

F. Re-establish feedwater to maintain vessel level above 126.5 inches and below 222.5 inches.

G. Override the red - open light ON for 23MOV-19.

H. Override the green - closed light OFF for 23MOV-19.

I. Remove both overrides when candidate takes the control switch for 23MOV-19 to close.

V. EVALUATOR NOTES

A. The candidate should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the candidate that the conditions of each step need only be properly identified and <u>not</u> actually performed.

VI. TASK CONDITIONS

A. An automatic HPCi initiation has occurred with a subsequent high level trip.

B. The Shift Supervisor has given direction to return HPCI to a normal standby line-up in accordance with OP-15.

* - CRITICAL STEP

VII. INITIATING CUE

A loss of feedwater flow has occurred resulting in a HPCI and RCIC initiation and trip on high Reactor vessel water level. Restore HPCI to a standby line-up per OP-15.

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain a controlled copy of OP-15, HIGH PRESSURE COOLANT INJECTION.	Obtains a controlled copy of OP-15	SAT / UNSAT
2.	Reviews the precautions.	Reviews the precautions, making note of any that are applicable.	SAT / UNSAT
3.	Select the correct section to perform the task.	Selects Section F of OP-15.	SAT / UNSAT
* 4.	Depresses TURB TRIP 23A-S19 pushbutton.	Depresses 23A-S-19 pushbutton on panel 09-3.	SAT / UNSAT
5.	When both the following conditions exits: ♦ RPV level is ABOVE 126.5 inches and ♦ Drywell pressure is BELOW 2.7 psig Continue with this procedure	Utilizes multiple indications to observe that RPV water level is above 126.5 inches and that drywell pressure is below 2.7 psig.	SAT / UNSAT
* 6.	Ensure closed TURB STM SUPP VLV 23MOV-14.	Closes 23MOV-14 by taking its control switch to the CLOSE position.	SAT / UNSAT
7.	Depress INITIATION SIG/MAN TURB TRIP RESET 23A-S17 pushbutton	Depresses 23A-S17 pushbutton on panel 09-3.	SAT / UNSAT
8.	Verifies white INITIATION SIG 23A-DS63 light is off.	Observes that 23A-DS63 light is off on panel 09-3.	SAT / UNSAT
9.	If amber Rx HIGH LEVL SIG 23A-DS65 light is on at panel 09-3, THEN reset high water level trip as follows: Verify RPV level is LESS THAN 222.5 inches.	Utilizes multiple indications to observe that RPV level is less than 222.5 inches.	SAT / UNSAT
* 10.	Depress HI LVL SIG RESET 23A-S25 pushbutton.	Depresses 23A-S25 pushbutton on panel 09-3.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
11.	Verify amber Rx HI LVL SIG 23A-DS65 light is off.	Observes that 23A-DS65 light is off on panel 09-3.	SAT / UNSAT
12.	Verify annunciator 09-3-3-28 HPCI TURB TRIP SOLENOID ENERGIZED is clear.	Observes that annunciator 09-3-3-28 clears when annunciator reset pushbutton is pushed.	SAT / UNSAT
13.	Ensure closed INJ VLV 23MOV-19.	Observes that 23MOV-19 is not closed by red - open light on and green - closed light off. Reports that 23MOV-19 failed to automatically close. Closes 23MOV-19 by taking its control switch to the CLOSE position.	SAT / UNSAT
14.	Ensure closed TEST VLV TO CST 23MOV-21.	Observes that the green - closed light for 23MOV-21 is on.	SAT / UNSAT
15.	If 23MOV-24 is not being used for RCIC operation THEN ensure closed HPCI & RCIC TEST VLV TO CST 23MOV-24.	Observes that the green - closed light for 23MOV-21 is on. EVALUATOR: Inform the candidate "Valve 23MOV-24 will not be used to support RCIC operation.	SAT / UNSAT
16.	When HPCI turbine is stopped, stop AUX OIL PMP 23P-150.	Observes that HPCI turbine is stopped by speed indicator on panel 09-3 reading 0 rpm stops 23P-150 by taking its control switch to the STOP position.	SAT / UNSAT
17.	Verify closed the following valves: ♦ TURB STOP VLV 23HOV-1 ♦ TURB GOV VLV 23HOV-2	Observes that the GREEN - closed lights for 23HOV-1 and 23HOV-2 are on.	SAT / UNSAT
18.	Verify open the following valves: ♦ STM LINE DRAIN TO RADW 23AOV-42 ♦ STM LINE DRAIN TO RADW 23AOV-43	Observes that the red - open lights for 23AOV-42 and 23AOV-43 are on.	SAT / UNSAT
19.	Ensure closed MIN FLOW VLV 23MOV-25.	Observes that the green - closed light for 23MOV-25 is on.	SAT / UNSAT
20.	Verify open STM LINE WARMING ISOL VLV 23MOV-60.	Observes that the red - open light for 23MOV-25 is on.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
21.	Ensure closed OUTBD STM SUPP VLV 23 MOV-16.	Closes 23MOV-16 by taking its control switch to the CLOSE position	SAT / UNSAT
22.	When HPCI turbine has been stopped for at least 15 minutes, stop GLAND SEAL CNDSR BLOWER 23P-140.	After a 15 minute wait, stop 24P-140 by taking its control switch to the STOP position. EVALUATOR: JPM may be completed before 15 minute interval.	SAT / UNSAT
23.	Ensure closed for the following valves: ♦ HPCI GLAND SEAL SUCT 01-125MOV-13A ♦ HPCI GLAND SEAL SUCT 01-125MOV-13B	Closes 01-125MOV-13A and 01-125MOV-13B by placing their control switches on the CLOSE position. EVALUATOR: These control switches are located on panel 09-75.	SAT / UNSAT
24.	If SGT operation is not required, THEN shutdown SGT per Section F of OP-20.	When the candidate states that he/she would shutdown SGT per OP-20, then inform candidate "Another operator has been assigned to shutdown SGT".	SAT / UNSAT

NEW YORK POWER AUTHORITY
JOB PERFORMANCE MEASURE

S/RO/NLO **Combined RO/SRO** Name: **Failure of the "A" Reactor Recirculation Pump Seal.**

REV: 0 DATE: November 2001 NRC K/A **202001, A2.10 - (3.5, 3.9)**
Ability to predict the impact of seal failure on the recirculation system and bases on these indications use procedures to correct, control, or mitigate the consequence of those abnormal conditions.

JAF TASK NUMBER: JAF QUAL STANDARD NUMBER:

ESTIMATED COMPLETION TIME: ___ Minutes

SUBMITTED: _____ OPERATION REVIEW: _____

APPROVED: _____

CANDIDATE NAME: _____ S.S. NUMBER: _____

JPM Completion: ( ) Simulated ( ) Performed

Location: ( ) Plant (X) Simulator

DATE PERFORMED: _____ TIME TO COMPLETE: . Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: _____
SIGNATURE/PRINTED

CANDIDATE REVIEW: _____
SIGNATURE

JOB PERFORMANCE MEASURE
RECORD AND CHECKLIST

Current Update: _____ (Date) By: _____ (Int.)

Outstanding Items:

_____ Technical Review

_____ Additional Information

_____ Questions and Answers

__XX__ Validation

_____ Procedural Change Required

_____ None

Comments:

Current Update: _____ (Date) By: _____ (Int.)

Previous Revision Dates:

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. ARP 09-4-2-7, "RWR PMP A SEAL STAGIN FLOW HI OR LO"
APR 09-4-2-38, "RWR PMP A OUTER SEAL LEAK DET FLOW HI"
OP-27, "Recirculation System"

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Initialize simulator to a full power IC.

B. Set up for a failure on the "A" Reactor Recirculation Pump number 1 and number 2 Seal failure.

V. EVALUATOR NOTES

A. The candidate will be stationed at the 09-4 panel and instructed to respond to all alarms that received on the 09-4 panel.

B. Allow the candidate several minutes to review plant conditions.

C. A second individual will be required to acknowledge alarms on other panels as they alarm.

VI. TASK CONDITIONS

A.

*** - CRITICAL STEP**

VII. INITIATING CUE

You are the NCO2. Respond to all alarms that are received on the 09-4 panel.

	STEP	STANDARD	EVALUATION / COMMENT
1.	Candidate assumes the watch on the 09-4 panel.	**EVALUATOR:** Ques simulator operator to insert no.1 and no. 2 seal failures on the "A" reactor recirculation pump.	SAT / UNSAT
2.	Candidate acknowledges annunciators: 09-4-2-38, "RR A OUTER SEAL LEAK DET HI FLOW 09-4-2-7, "RR A SEAL STAGING FLOW HI	Candidate reviews the annunciator response procedures. 09-4-2-38, "RR A OUTER SEAL LEAK DET HI FLOW 09-4-2-7, "RR A SEAL STAGING FLOW HI	SAT / UNSAT
3.	Candidate determines that the "A" reactor recirculation pump no.1 & no. 2 seals have failed.	Based on the following conditions: 09-4-2-38, ""RR A OUTER SEAL LEAK DET HI FLOW," in alarm 09-4-2-7, "RR A SEAL STAGING FLOW HI," in alarm Seal no.1 & no. 2 pressure decreasing upward trend in drywell pressure upward trend in drywell equipment drain sump / floor drain sump.	SAT / UNSAT
4.	Determines that the "A" recirculation pump must be shutdown and isolated to stop the leak.	ARP 09-4-2-7, & 38 specifies that the that reactor recirculation loop "A" must be shutdown and isolated per OP-27.	SAT / UNSAT
5.	Candidate obtains OP-27, "Recirculation System"	Candidate selects section G.2, "Emergency RWR Loop A Shutdown with Reactor in Startup or Run Mode.	SAT / UNSAT
*6.	CLOSE the "RWR PMP A DISH" 02MOV-53A Valve.	Candidate takes control switch for 02MOV-53A Valve to CLOSE and verify that the GREEN light is ON.	SAT / UNSAT

7.	Verify the "A" Recirculation Pump has tripped.	Candidate verifies that the pump trips when 02MOV-53A is 10% open.	SAT / UNSAT
8.	Place the reactor recirculation pump 02-2P-1A in PULL TO LOCK	Candidate takes control switch for the reactor recirculation pump 02-2P-1A and places the switch in PULL TO LOCK.	SAT / UNSAT
9.	Verify that the "A" reactor recirculation pump MS Set "A" generator field breaker is OPEN.	Verify that the generator field breaker light is green 17 seconds after the "A" drive motor breaker trips.	SAT / UNSAT
*10.	CLOSE 02-2RWR-39A recirculation pump A seal purge upstream isolation valve.	Dispatch operator to close 02-2RWR-39A to isolate the "A" reactor recirculation pump seal.	SAT / UNSAT
*11.	CLOSE 02MOV-43A, "A" reactor recirculation pump suction valve.	Candidate takes the control switch for 02MOV-43A, to close and verifies that GREEN light is ON.	SAT / UNSAT
12.	Ensure RWR MG DC LUBE OIL PMP 02-184P-3A is stopped.	Candidate verifies that the GREEN light is On for the RWR MG DC LUBE OIL PMP 02-184P-3A.	SAT / UNSAT
13.		**EVALUATOR:** Task is complete.	SAT / UNSAT

NEW YORK POWER AUTHORITY
JOB PERFORMANCE MEASURE

S/RO/NLO **Combined RO/SRO** Name: **Bypassing Local Power Range Monitor**

Note:During validation the APRM failure to trip portion of this JPM was dropped from the JPM.

REV: 0 DATE: November 2001 NRC K/A 215005 A4.06 (3.6/3.8)
Ability to manually operate and / or monitor in the control room: verification of proper functioning / operability.

ESTIMATED COMPLETION TIME: 20 Minutes

SUBMITTED: OPERATION REVIEW:

APPROVED:

CANDIDATE NAME: S.S. NUMBER:

JPM Completion: ( ) Simulated ( ) Performed

Location: ( ) Plant ( ) Simulator

DATE PERFORMED: TIME TO COMPLETE: Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: _____ / _____
SIGNATURE/PRINTED

CANDIDATE REVIEW: _____
SIGNATURE

JOB PERFORMANCE MEASURE
RECORD AND CHECKLIST

Current Update: _____ (Date) By: _____ (Int.)

Outstanding Items:

_____ Technical Review
_____ Additional Information
_____ Questions and Answers
__XX__ Validation
_____ Procedural Change Required
_____ None

Comments:

Current Update: _____ (Date) By: _____ (Int.)

Previous Revision Dates:

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. OP-16, Neutron Monitoring, Rev. 20.

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Initialize the simulator to any full power IC
B. Ensure that APRM GAFs are 1.000 or less
C. Insert Malfunction NM11:4C0421; Final Severity 0%
D. Ensure that the Monicore program is operable

V. EVALUATOR NOTES

A. The candidate should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. In conjunction with OP-16 the (*) means the associated LPRM.

VI. TASK CONDITIONS

A. The reactor is operating at full power
B. LPRM 04-21C detector is inoperable (Failed Downscale)
C. The control room supervisor has directed that LPRM 04-21C be bypassed.

VII. INITIATING CUE

LPRM 04-21C has failed downscale. Bypass and remove LPRM 04-21C from service.

*** - CRITICAL STEP**

INITIATING CUE

LPRM 04-21C has failed downscale. Bypass and remove LPRM 04-21C from service.

	STEP	STANDARD	EVALUATION / COMMENT
1	Obtain a controlled copy of procedure OP-16.		SAT / UNSAT
2	Select the correct procedure section to perform the task.	Selects section E.11, Bypassing an LPRM Assigned to an APRM.	SAT / UNSAT
3	Determines the APRM or LPRM Group that LPRM 04-21C is on.	Determines that LPRM 04-21C is on APRM A	SAT / UNSAT
4	Bypass APRM A.	Bypasses APRM A using section E.16: At 09-5 panel place APRM BYP switch in "A" Position.	SAT / UNSAT
5	Verify that the APRM A is bypassed.	Verify APRM (*) is bypassed using one or both of the following: APRM A BYPASS indicating light is ON APRM A EPIC alarm indicates bypassed	SAT / UNSAT
6	Verify that APRM C & E are in service.	Verify APRM C & E channels are in service using one or both of the following: APRM BYPASS indicating lights are off for the other two APRMs No EPIC bypassed alarms for the other two APRMs	SAT / UNSAT
7	Verify APRM A BYP light on panel 09-12 is ON.	APRM A BYP white light is ON on panel 09-12.	SAT / UNSAT

8	Verify LPRM 04-21C reads downscale	At 09-12 panel determine alpha-numeric designation of LPRM 04-21C and place: left hand METER FUNCTION switch (S3) in the numerical position for 04-21C right hand METER FUNCTION switch (S2) in alphabetical position for LPRM 04-21C. Verify that the LPRM reads 0 on the meter.	SAT / UNSAT
9*	Bypass LPRM 04-21C.	Open panel door and find LPRM amplifier card 04-21C. Place the LPRM amplifier card switch in bypass.	SAT / UNSAT
10	Verify LPRM 04-21C is bypassed.	Verify the following indication at 09-12 panel for LPRM 04-21C. Bypassed indication - first white light is ON Downscale indication - middle white light is ON LPRM Bypassed white light on front left side of APRM meter is ON. Verify that the LPRM is indicating 0 on the meter.	SAT / UNSAT
11	Contact Reactor Engineering to run an OD-1.	Evaluator: Reactor Engineering has determined that an OD-1 is not required to be performed.	SAT / UNSAT
12	Determine APRM reading.	Place APRM A right hand meter switch to AVERAGE. **Evaluator:** If the "A" APRM is not reading 100% then inform the candidate that the meter reading is 100% and no APRM calibration is needed.	SAT / UNSAT

13	Prior to returning the "A" APRM to service determine if the "A" APRM is operable.	At 09-14 panel count the number LPRM amplifier cards that are in the OP (operate) position. The candidate should count greater than 11 LPRM amplifier cards that are in OP. The candidate should count at least 2 LPRM amplifier cards that are in OP per level.	SAT / UNSAT
14	Return the "A" APRM to Operate	The candidate obtains OP-16, section E.17, "Returning an APRM to Service."	SAT / UNSAT
15*	Verify that there are no APRM trips on the "A" APRM.	At 09-14 panel verify that the following lights are Off. INOP UPSCL NEUT TRIP UPSCL THERM TRIP	SAT / UNSAT
16*	Places the "A" APRM in operate	At 09-5 panel move the APRM BYP switch from "A" to the center position. Verify that APRM A Bypass indicating light is OFF APRM A EPIC bypass alarm OFF	SAT / UNSAT
17	Verify all "A" Channel APRMs are in service	For APRM A , C & E the following indications are present on the 09-5 panel. APRM bypass lights are OFF No APRM bypass alarms on EPIC.	SAT / UNSAT
		Evaluator: The task is complete.	

NEW YORK POWER AUTHORITY
JOB PERFORMANCE MEASURE

S/RO/NLO **Combined RO/SRO** Name: **Manually load the Emergency Diesel Generators in accordance with the Emergency Diesel Generator Load Tests.**

REV: 0 DATE: November 2001 NRC K/A **264000 A4.04 (3.7/3.7) Ability to manually operate and / or monitor in the control room: manual start, loading and stopping of emergency diesel generators.**

ESTIMATED COMPLETION TIME: __ Minutes

SUBMITTED: OPERATION REVIEW:

APPROVED:

CANDIDATE NAME: S.S. NUMBER:

JPM Completion: ( ) Simulated ( ) Performed

Location: ( ) Plant ( ) Simulator

DATE PERFORMED: TIME TO COMPLETE: Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: _____ / _____
SIGNATURE/PRINTED

CANDIDATE REVIEW: _____
SIGNATURE

JOB PERFORMANCE MEASURE
RECORD AND CHECKLIST

Current Update: _____ (Date) By: _____ (Int.)

Outstanding Items:

_____ Technical Review _____ Additional Information

_____ Questions and Answers __XX__ Validation

_____ Procedural Change Required _____ None

Comments:

Current Update: _____ (Date) By: _____ (Int.)

Previous Revision Dates:

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. ST-9B, EDG FULL LOAD TEST AND ESW PUMP OPERABILITY TEST, Rev. 31.

III. TOOLS AND EQUIPMENT

A. Stopwatch

B. One additional individual to start one of the EDGs simultaneously.

IV. SET UP REQUIREMENTS

A. None

V. EVALUATOR NOTES

A. None

VI. TASK CONDITIONS

A. Prerequisites of ST-9B, EDG FULL LOAD TEST AND ESW PUMP OPERABILITY TEST have been completed. The EDGs are ready to be started as per step 8.8.

*** - CRITICAL STEP**

VII. INITIATING CUE

Surveillance test procedure, ST-9B, EDG FULL LOAD TEST AND ESW PUMP OPERABILITY TEST, is in progress. The B and D emergency diesel generators (EDGs) are ready to be started. Complete ST-9B beginning with the starting of the B and D EDGs.

	STEP	STANDARD	EVALUATION / COMMENT
1	Obtain a controlled copy of procedure ST-9B.	**EVALUATOR:** Provide a marked up controlled copy of ST-9B, EDG FULL LOAD TEST AND ESW PUMP OPERABILITY TEST.	SAT / UNSAT
2	Reviews the precautions.	Reviews the precautions, making note of any that are applicable.	SAT / UNSAT
3	Select the correct section to perform the task.	Selects section 8.8 of ST-9B.	SAT / UNSAT
4	Starts B and D EDG simultaneously	Places the control switch for the B & D EDG in the start position simultaneously.	SAT / UNSAT
5*	Verifies that the start time of the EDGs is less than 10 seconds.	Starts the stop watch when both EDGs are started and stops when both EDGs are greater than 900 rpm and 4.16 KV.	SAT / UNSAT
6	Verifies that the tie breaker is closed and B emergency service water pump is running.	Verifies the following panel indications: EDG B & D TIE BKR 10604 RED light indication ON ESW Pump 46P-2B RED light is ON.	SAT / UNSAT
7	Trip tie breaker 10604.	Places the CS for breaker 10604, EDG B & D TIE BKR, to OPEN and spring return to AUTO.	SAT / UNSAT
8	Place the governor mode switches in the droop position.	Places the EDG GOV MODE switches for EDGs B & D to DROOP.	SAT / UNSAT

9*	Parallel EDG B with the grid. Parallels EDG B with the grid as follows:	Place the B LOAD BKR SYNCH SW to ON. Match INCOMING (EDG) and RUNNING (bus 10600) voltages. Match EDG and bus phases by synchroscope and place the CS for 10602, EDG B LOAD BKR, to CLOSE. Adjust EDG B GOV to raise EDG B load 100 to 300 Kw Place the EDG B LOAD BKR SYNCH SW to OFF.	SAT / UNSAT
10	Load EDG B.	Places the EDG B GOV switch to RAISE and loads EDG B in increments of about 800 kW over a period of 3 to 5 minutes until 2600 kW is reached.	SAT / UNSAT
11*	Parallel EDG D with the grid.	Parallels EDG D with the grid as follows: Place the D LOAD BKR SYNCH SW to ON. Match INCOMING (EDG) and RUNNING (bus 10600) voltages. Match EDG and bus phases by synchroscope and place the CS for 10612, EDG D LOAD BKR, to CLOSE. Adjust EDG D GOV to raise EDG B load 100 to 300 Kw Place the EDG D LOAD BKR SYNCH SW to OFF.	SAT / UNSAT
12	Load EDG D.	Places the EDG D GOV switch to RAISE and loads EDG D in increments of about 800 kW over a period of 3 to 5 minutes until 2600 kW is reached.	SAT / UNSAT
		EVALUATOR: The task is complete	

NEW YORK POWER AUTHORITY
JOB PERFORMANCE MEASURE

S/RO/NLO **Combined RO/SRO** Name: **Reset a Group I Isolation**

REV: 0 DATE: November 2001 NRC K/A **223002 A4.03 3.6/3.5**
Reset System Isolations

ESTIMATED COMPLETION TIME: __ Minutes

SUBMITTED: OPERATION REVIEW:

APPROVED:

CANDIDATE NAME: S.S. NUMBER:

JPM Completion: ( ) Simulated ( ) Performed

Location: ( ) Plant ( ) Simulator

DATE PERFORMED: TIME TO COMPLETE: Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: _____ / _____
SIGNATURE/PRINTED

CANDIDATE REVIEW: _____
SIGNATURE

JOB PERFORMANCE MEASURE
RECORD AND CHECKLIST

Current Update: _____ By: _____
Date Int.

Outstanding Items:

_____ Technical Review _____ Additional Information

_____ Questions and Answers __XX__ Validation

_____ Procedural Change Required _____ None

Comments:

Current Update: _____ By: _____
Date Int.

Previous Revision Dates:

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. AOP-15 RECOVERY FROM AN ISOLATION, Rev. 20

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. None

V. EVALUATOR NOTES

VI. TASK CONDITIONS

A. Reactor S/D

B. LOW RPV water level Group I isolation has occurred

C. RPV water level has been restored and is being maintained in the green band

*** - CRITICAL STEP**

VII. INITIATING CUE

The reactor has scrammed and a lo-lo-lo level (59.5") isolation has occurred. Both the cause of the scram and the isolation have been corrected and the plant is stable. Reset the Group I isolation for those components affected by 59.5" isolation, but do NOT re-open them.

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain a controlled copy of procedure . Obtains a controlled copy of AOP-15 RECOVERY FROM AN ISOLATION		SAT / UNSAT
2.	Select the correct section to perform the task.	Selects section C.2, Group I Isolation. Starting at C.2.4.	SAT / UNSAT
3.	Determines if an undesirable release will occur when the isolation is reset.	**EVALUATOR:** If RES assistance is required then tell candidate that RES has determined that an undesirable release will NOT occur.	SAT / UNSAT
*4.	Place CS for 02-2S0V-39 in CLOSE.	At 09-3 panel, places CS for RWR SMPL VLV 02-2SOV-39 in CLOSE RESET.	SAT / UNSAT
*5.	Place CS for 02-2SOV-40 in CLOSE.	At 09-4 panel, places CS for RWR SMPL VLV, 02-2SOV-40 in CLOSE RESET	SAT / UNSAT
6.	Place CS's for inboard MSIV's in CLOSE.	At 09-4 panel, turns control switches for MSIV 29AOV-80 A thru D to CLOSE	SAT / UNSAT
7.	Place CS's for outboard MSIV's in CLOSE.	At 09-3 panel turns control switches for MSIV 29AOV-86 A thru D to CLOSE	SAT / UNSAT
8.	Reset the Group I isolation.	At 09-5 panel, momentarily turn both the PCIS VLV RESET switches (16A-S32 & 16A-S33) to RESET positions, and allow them to spring return to NORM. Observes 09-5-1-55 and 09-5-1-56 PCIS SYS A(B) GROUP I ISOL clear.	SAT / UNSAT

NEW YORK POWER AUTHORITY
JOB PERFORMANCE MEASURE

S/RO/NLO APPL. TO _20004233A_ JPM NUMBER TASK TITLE: Close an SORV Remotely by Pulling Fuses.

REV: _4_ DATE: _11/01/95_ NRC K/A SYSTEM NUMBER: _239002 A2.03 4.1/4.2_

JAF TASK NUMBER: _2000402233_ JAF QUAL STANDARD NUMBER: _5AOP.115_

ESTIMATED COMPLETION TIME: _6_ Minutes

CANDIDATE NAME: _____ S.S. NUMBER:

JPM Completion: ( ) Simulated ( ) Performed

Location: ( ) Plant ( ) Simulator

DATE PERFORMED: _____ TIME TO COMPLETE: . Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: _____
SIGNATURE/PRINTED

REVIEWED BY: _____ DOC. COMPLETE:
PROGRAM ADMINISTER

JOB PERFORMANCE MEASURE
RECORD AND CHECKLIST

S/RO/NLO APPL. TO | 20004233A JPM NUMBER | TASK TITLE: Close an SORV Remotely by Pulling Fuses.

Current Update: 11/01/95 (Date) By: JS/NYPA (Int.)

Comments:

Current Update: _____ (Date) By: _____ (Int.)

Previous Revision Dates:

08/90
03/92
03/93
01/94
09/94

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

S/RO/NLO 20004233A TASK TITLE: Close an SORV Remotely by Pulling Fuses.
APPL. TO JPM NUMBER

I. SAFETY CONSIDERATIONS

A. Observe proper electrical safety precautions associated with removal of fuses in an energized DC electrical system.

II. REFERENCES

A. AOP-36, Stuck Open Relief Valve(s) (SORV), Rev. 11.

III. TOOLS AND EQUIPMENT

A. Fuse Pullers.

IV. SET UP REQUIREMENTS

A. Make a copy of AOP-36 for use by the candidate.

B. Obtain Shift Manager's permission prior to performing this task.

V. EVALUATOR NOTES

A. The candidate should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the candidate that the conditions of each step need only be properly identified and <u>not</u> actually performed.

VI. TASK CONDITIONS

A. SORV 02-RV-71A inadvertently opened and remained open.

B. AOP-36, Stuck Open Relief Valves, was entered and attempts to shut the valve from the 09-4 panel have been unsuccessful, steps C.2.1 through C.2.3.c are completed.

C. The next step to close the valve is to remove the control power fuses per step C.2.3.d.

VII. INITIATING CUE

Inform the candidate, "Safety Relief Valve 02-RV-71A is stuck open. Control Room actions for closing the valve have been unsuccessful. The Control Room Supervisor directs you to attempt to close 02-RV-71A by removing the four (4) control power fuses."

*** - CRITICAL STEP**

INITIATING CUE

Safety Relief Valve 02-RV-71A is stuck open. Control Room actions for closing the valve have been unsuccessful. The Control Room Supervisor directs you to attempt to close 02-RV-71A by removing the four (4) control power fuses.

EVALUATOR: If the candidate being evaluated is a NLO, supply the candidate with the following "per AOP-36 step C.2.3.d."

	STEP	STANDARD	EVALUATION / COMMENT
1.	Proceed to panel 09-45 in the Relay Room and access the panel.	Correct panel located and accessed.	SAT / UNSAT
* 2.	Using either a controlled copy of AOP-36, Stuck Open Relief Valve(s) (SORV) or the operator aid inside panel 09-45, determine the correct fuse to be removed.	Fuses F2(F3A), F12(F4A), F23(F11A), and F34(F12A) in panel 09-45 identified for removal.	SAT / UNSAT
* 3.	Remove the control power fuses for 02-RV-71A.	**EVALUATOR:** When the candidate identifies which fuses are to be removed and describes how to remove them using the fuse pullers, tell the candidate "The fuses are pulled".	SAT / UNSAT
4.	Contact the Control Room and inform them that the fuses have been removed.	**EVALUATOR:** Acknowledge the communication and as the Control Room Operator inform the candidate that "The SRV now indicates closed".	SAT / UNSAT
EVALUATOR: Terminate the task at this point.			

NEW YORK POWER AUTHORITY
JOB PERFORMANCE MEASURE

SRO / RO Task Number 20004246A TASK: Supplying Cooling Water to EDG's A and C from Fire Protection.

REV: 0 DATE: 03/21/95 NRC K/A NUMBER:264000 K6.07 3.8 / 3.9

JAF TASK NUMBER: 2000402246 JAF QUAL STANDARD NUMBER:

ESTIMATED COMPLETION TIME: 15 Minutes

CANDIDATE NAME: _____ S.S. NUMBER:

JPM Completion: ( ) Simulated ( ) Performed

Location: ( ) Plant ( ) Simulator

DATE PERFORMED: _____ TIME TO COMPLETE: Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: _____
SIGNATURE/PRINTED

REVIEWED BY: _____ DOC. COMPLETE:
PROGRAM ADMINISTER

JOB PERFORMANCE MEASURE
RECORD AND CHECKLIST

TASK: Supplying Cooling Water to EDG's A and C from Fire Protection.

Current Update: 03/21/95 (Date) By: JS/NYPA (Int.)

Outstanding Items:

_____ Technical Review _____ Additional Information

_____ Questions and Answers __XX__ Validation

_____ Procedural Change Required _____ None

Comments:

Identified by:	Change	
NRC	Step11	Added **EVALUATOR:** the ESW lockout matrix is NOT activated

Current Update: _____ (Date) By: _____ (Int.)

Previous Revision Dates:

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

TASK TITLE: Supplying Cooling Water to EDG's A and C from Fire Protection.

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. OP-22, Diesel Generator Emergency Power, Rev. 43.

III. TOOLS AND EQUIPMENT

A. Equipment located in circuit 76CAB-1 on West wall of North Emergency Service Water Room.

IV. SET UP REQUIREMENTS

A. None

V. EVALUATOR NOTES

A. The candidate should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the candidate that the conditions of each step need only be properly identified and not actually performed.

VI. TASK CONDITIONS

A. Provide cooling water from the Fire Protection System for operating the EDG's when the normal ESW supply is not available.

B. The Shift Manager has directed that the Fire Protection System be utilized to provide cooling to the A & C EDG's.

VII. INITIATING CUE

Inform the candidate, "The plant has sustained a loss of off-site power. The B and D EDG's have failed to start. Upon initiation of the A and C EDG's, the "A" ESW System failed due to a fault in the supply breaker to the "A" ESW pump. In order to supply power to the 10500 Emergency Bus, the Shift Manager has directed you to supply cooling water to EDG's A and C from the Fire Protection System."

*** - CRITICAL STEP**

INITIATING CUE

The plant has sustained a loss of off-site power. The B and D EDG's have failed to start. Upon initiation of the A and C EDG's, the "A" ESW System failed due to a fault in the supply breaker to the "A" ESW pump. In order to supply power to the 10500 Emergency Bus, the Shift Manager has directed you to supply cooling water to EDG's A and C from the Fire Protection System.

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain a controlled copy of the procedure.	Obtains a controlled copy of OP-22.	SAT / UNSAT
2.	Reviews the precautions of the procedure.	Reviews the precautions associated with OP-22 and notes applicable sections.	SAT / UNSAT
3.	Selects the correct section of the procedure.	Selects section G, Special Procedures and goes to section G.27.	SAT / UNSAT
4.	Reviews "Note" and "Caution".	Locates section of the procedure and reviews the "Note" and "Caution" which appears at the start of the procedure.	SAT / UNSAT
* 5.	Ensures one Fire Protection pump running.	Ensures at least one of the following pumps is running: ELECTRIC FIRE PUMP, 76P-2 DIESEL FIRE PUMP, 76P-1 DIESEL FIRE PUMP, 76P-4 **EVALUATOR:** Candidate may visually ensure one pump is running by using local indications or by contacting the Control Room using phone communication. If necessary, respond to Control Room communication and report to the candidate that the Electric Fire Pump is running.	SAT / UNSAT
6.	Verify B and D EDG's are shutdown.	Verifies EDG's are shutdown by going to EDG's and visually observing EDG's are shutdown.	SAT / UNSAT
* 7.	Prevent operation of "B" EDG.	Prevent operation of "B" EDG by placing "B" EDG control switch in "MAINT" at panel 93ECP-B.	SAT / UNSAT
* 8.	Prevent operation of "D" EDG.	Prevent operation of "D" EDG by placing "D" EDG control switch in "MAINT" at panel 93ECP-D.	SAT / UNSAT
* 9.	Perform valve line-up.	Line-up the following valves per the table: 46ESW-3B Unlocked and Shut 46ESW-2A Open 46ESW-2B Open	 SAT / UNSAT SAT / UNSAT SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
* 10.	Cross-tie ESW and Fire Protection.	Line-up the cross-tie between Fire Protection and ESW as follows: a. Remove caps from the following: 46ESW-2000 76FPS-2000 b. Connect short length of hose between the following valves: 46ESW-2000 76FPS-2000 c. Unlock and Open 76FPS-2000. d. Unlock and Open 46ESW-2000.	SAT / UNSAT SAT / UNSAT SAT / UNSAT SAT / UNSAT
* 11.	Ensures closed valves: 46MOV-101A 46MOV-102A 46MOV-101B 46MOV-102B	**EVALUATOR:** the ESW lockout matrix is NOT activated Ensures closed the following valves: 46MOV-101A, ESW System "A" Injection Valve 46MOV-102A, ESW System "A" Test Valve 46MOV-101B, ESW System "B" Injection Valve 46MOV-102B, ESW System "B" Test Valve	SAT / UNSAT
EVALUATOR: Cooling water is now being supplied to EDG's "A" and "C" from the Fire Protection System.			

	STEP	STANDARD	EVALUATION / COMMENT
* 12.	Shut the following valves on EDG Air Start Air Banks: 93EDG-48B 93EDG-51B 93EDG-48D 93EDG-51D	Shut the following valves: 93EDG-48B, EDG "B" Air Start Left Bank Isolation Valve 93EDG-51B, EDG "B" Air Start Right Bank Isolation Valve 93EDG-48D, EDG "D" Air Start Left Bank Isolation Valve 93EDG-51D, EDG "D" Air Start Right Bank Isolation Valve	SAT / UNSAT
13.	Issue PTR.	Issue Protective Tags for the following components as soon as practicable: Position Engine control switch at panel 93ECP-B MAINT Engine control switch at panel 93ECP-D MAINT 93EDG-48B SHUT 93EDG-51B SHUT 93EDG-48D SHUT 93EDG-51D SHUT 46ESW-2A OPEN 46ESW-2B OPEN 46ESW-3B SHUT EVALUATOR: PTR need not be issued, but candidate should recognize and then report to the SM that a PTR has to be issued.	SAT / UNSAT
		EVALUATOR: Terminate the task at this point.	

NEW YORK POWER AUTHORITY
JOB PERFORMANCE MEASURE

S/RO APPL. TO | 20102015 JPM NUMBER | TASK TITLE: Changing In-Service CRD Flow Control Valves (A FCV to B FCV)

REV: 5 | DATE: 03/03/99 | NRC K/A SYSTEM NUMBER: 201001 SG 9 3.7/3.4

JAF TASK NUMBER: 20102015 | JAF QUAL STANDARD NUMBER: 503C.401

ESTIMATED COMPLETION TIME: 15 Minutes

CANDIDATE NAME: _____ S.S. NUMBER:

JPM Completion: ( ) Simulated ( ) Performed

Location: (XX) Plant ( ) Simulator

DATE PERFORMED: _____ TIME TO COMPLETE: . Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: _____
SIGNATURE/PRINTED

REVIEWED BY: _____ DOC. COMPLETE:

PROGRAM ADMINISTER

JOB PERFORMANCE MEASURE
RECORD AND CHECKLIST

S/RO (APPL. TO) | 20102015 (JPM NUMBER) | TASK TITLE: Changing In-Service CRD Flow Control Valves

Current Update: 03/03/99 (Date) By: MWD (Int.)

Outstanding Items:

_____ Technical Review
_____ Additional Information
_____ Questions and Answers
_____ Validation
_____ Procedural Change Required
_____ None

Comments:

Identified by:	Change
NRC	A second JPM was developed to swap from the B to A CRD FCV based on plant conditions during the preparation week.

Current Update: _____ (Date) By: _____ (Int.)

Previous Revision Dates:

09/28/94

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

S/RO	20102015	TASK TITLE:	Changing In-Service CRD Flow Control Valves
APPL. TO	JPM NUMBER		

I. SAFETY CONSIDERATIONS

A. Proper safety attire (hardhat, safety shoes, safety glasses, ear protection, etc.) is to be worn when out in the plant.

II. REFERENCES

A. OP-25, CONTROL ROD DRIVE HYDRAULIC SYSTEM, Rev. 65.

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Ensure that flow control valve 03FCV-19A is in-service.

V. EVALUATOR NOTES

A. The candidate should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the candidate that the conditions of each step need only be properly identified and not actually performed.

VI. TASK CONDITIONS

A. The Control Rod Drive Hydraulic System is in operation.

B. The standby CRD Flow Control Valve must be placed in-service in order to verify its ability to operate correctly in automatic

VII. INITIATING CUE

Inform the candidate, "the plant is operating at rated power. The Maintenance Department has requested that "A" CRD Flow Control Valve (03FCV-19A) be removed from service for preventive maintenance. The SM will agree, after he/she is sure that the "B" FCV (03FCV-19B) functions normally. Inform the candidate: "Place "B" CRD Flow Control Valve (03FCV19B) in-service, and place "A" CRD Flow Control Valve (03FCV-19A) in standby."

*** - CRITICAL STEP**

INITIATING CUE

The plant is operating at rated power. The Maintenance Department has requested that "A" CRD Flow Control Valve (03FCV-19A) be removed from service for preventive maintenance. The SM will agree, after he/she is sure that the "B" FCV (03FCV-19B) functions normally. Inform the candidate: "Place "B" CRD Flow Control Valve (03FCV19B) in-service, and place "A" CRD Flow Control Valve (03FCV-19A) in standby.

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain a controlled copy of procedure OP-25, CONTROL ROD DRIVE HYDRAULIC SYSTEM.	The candidate obtains a controlled copy of OP-25.	SAT / UNSAT
2.	Review the precautions.	The candidate reviews the precautions, Section C2, making note of any that are applicable.	SAT / UNSAT
3.	Select the correct section to perform the task.	The candidate selects Section G.15, Changing In-Service CRD Flow Control Valves.	SAT / UNSAT
4.	Establish communication between Flow Control Hand select station and the Control Room.	a. The candidate goes to the Rx Building 272' level to the area West of the West HCU's. b. The candidate establishes communications between the Control Room and the master control station using either the West HCU area Gaitronics or nearby sound powered phone jack. **EVALUATOR:** Provide the necessary communications from the Control Room	SAT / UNSAT
*5.	Lineup CRD FLOW CNTRL 03FIC-301 per steps a. and b.: a. Ensure Controller is in Auto. b. Adjust Controller setpoint to 0 gpm.	**EVALUATOR:** When the candidate states that he/she would request the Control Room place the CRD flow controller setpoint to 0 gpm then inform the candidate "The CRD Flow Controller setpoint is at 0 gpm and the controller is in automatic".	SAT / UNSAT
6.	Verify open inlet isolation valve 03CRD-68B (CRD water 03FCV-19B inlet isolation valve).	**EVALUATOR:** When the candidate states that he/she would check 03CRD-68B in the closed direction and verify it open, then inform candidate "Valve 03CRD-68B is open".	SAT / UNSAT
*7.	Slowly open outlet isolation valve 03CRD-69B (CRD water 03FCV-19B outlet isol valve).	**EVALUATOR:** When the candidate states that he/she would slowly open 03CRD-69B, by turning its valve handwheel in the counter-clockwise direction, then inform the candidate "Valve 03CRD-69B is open".	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
*8.	Close outlet isolation valve 03CRD-69A (CRD water 03CRD-69A outlet isolation valve).	**EVALUATOR:** When the candidate states that he/she would close 03CRD-69A by turning its valve handwheel in the clockwise direction then inform the candidate "Valve 03CRD-69A is closed".	SAT / UNSAT
*9.	Place Auto-Man select knob in AUTO at Flow Control Hand Select Station 03HSS-245B.	**EVALUATOR:** When the candidate states that he/she would place AUTO-MAN select knob in AUTO at 03HSS-245B, then inform the candidate "Select knob in AUTO at 03HSS-245B".	SAT / UNSAT
*10.	Place AUTO-MAN select know in MAN at Flow Control Hand Select Station 03HSS-245A.	**EVALUATOR:** When the candidate states that he/she would place AUTO-MAN Select knob in MAN at 03HSS-245A, then inform the candidate "Select knob in MAN at 03HSS-245A".	SAT / UNSAT
11.	Slowly raise setpoint on CRD Flow Control 03FIC-301 to establish 59 to 61 gpm on 03FI-310.	**EVALUATOR:** When the candidate states that he/she would request the Control Room to raise setpoint of 03FIC-310 to establish 59 to 61 gpm, then inform the candidate "03FIC-310 setpoint is 60 gpm and flow indication is 60 gpm".	SAT / UNSAT
12.	Verify normal operating values on the following indications at Panel 09-5: · CHG WTR PRESS 03PI-302: BETWEEN 1390 and 1670, not to exceed 1670 · DRV WTR DIFF PRESS 03DPI-303: 260 to 270 psid · CLG WTR DIFF PRESS 03DPI-304: 16 to 26 psid · DRV WTR FLOW 03FI-305: zero when no CRD is being driven · CLG WTR FLOW 03FI-306: 59 to 61 gpm	**EVALUATOR:** When the candidate states that he/she would request the Control Room to verify the values, then inform the candidate "Values are normal".	SAT / UNSAT
EVALUATOR: Terminate the task at this point			