

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION

UNIT II OPERATIONS

02-REQ-009-1DY-2-02 Revision 3

TITLE: FEEDWATER PUMP TRIP/RECIRC PUMP TRIP/EHC MALFUNCTION CAUSES AN
MSIV ISOLATION WITH A FAILURE TO SCRAM

	<u>SIGNATURE</u>	<u>DATE</u>
PREPARER	<u>[Signature]</u>	<u>6/14/91</u>
VALIDATED BY	<u>[Signature]</u>	<u>6/14/91</u>
TRAINING AREA SUPERVISOR	<u>[Signature]</u>	<u>6/14/91</u>
PLANT SUPERVISOR/ USER GROUP SUPERVISOR	<u>[Signature]</u> <u>Franklin via FOR JB/CC/KR</u>	<u>6/18/91</u>

Summary of Pages

(Effective Date: 6/14/91)

Number of Pages: 25

<u>Date</u>	<u>Pages</u>
June 1991	1 - 25

TRAINING DEPARTMENT RECORDS ADMINISTRATION ONLY:

VERIFICATION: _____

DATA ENTRY: _____

RECORDS: _____

DOCUMENT

4/29/54 27



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I. TRAINING DESCRIPTION

- A. Title of Lesson: Feedwater Pump Trip/Recirc Pump Trip/EHC Malfunction Causes an MSIV Isolation with a Failure to Scram
- B. Lesson Description: The scenario begins with the crew assuming the shift at 90% power awaiting the Reactor Engineers decision to continue power ascension. The first event begins with a report from the turbine building of unusual noises from the B reactor feed pump. The crew should notice the high current readings for the pump and begin a power reduction. When power is approximately 70% the B feedwater pump will trip on high current forcing the crew to reduce power to within the capacity of one feedwater pump. The second event is an entry into the restricted zone of the power to flow map due to a trip of the B recirc pump. The event is complete when the crew has exited the restricted zone. The last event begins with a failure of the EHC system causing RPV pressure to lower to the MSIV isolation setpoint. When the MSIV's close the reactor will fail to scram forcing the crew to enter the Emergency Operating Procedures. The scenario is terminated when all rods are in and RPV water level is being restored.
- C. Estimate of the Duration of the Lesson: 50 minutes
- D. Method of Evaluation, Grade Format and Standard of Evaluation: Satisfactory completion of Simulator Evaluation performed in accordance with NTI-4.3.6.
- E. Method and Setting of Instruction: Simulator Performance
- F. Prerequisites:
1. Instructor:
 - a. Qualified as a simulator instructor per NTP-16.1.
 2. Trainee:
 - a. As required per NTP-11



G. References:

1. N2-OP-3, Condensate and Feedwater System
2. N2-OP-23, Main Turbine EHC
3. N2-OP-29, Reactor Recirculation System
4. N2-OP-30, Control Rod Drive
5. N2-OP-31, Residual Heat Removal System
6. N2-OP-83, Primary Containment Isolation System
7. N2-OP-101C, Plant Shutdown
8. N2-OP-101D, Power Changes
9. N2-Emergency Operating Procedures
10. NMP-EOP Basis Document
11. EOP-6 Attachments
12. Technical Specifications, 3.4.4.1
13. NRC Bulletin 80-17
14. NRC Bulletin 80-14
15. SER 61-80
16. NRC Bulletin 88-07

H. Manipulations

1. O2-REQ-MAN-B05-2-00, Loss of Protective System Channel
2. O2-REQ-MAN-B08-2-00, Failure of the Reactor to Scram
3. O2-REQ-MAN-B12-2-00, Malfunction of the Reactor Pressure Control System
4. O2-REQ-MAN-B13-2-00, Reactor Scram

II. REQUIREMENTS

- A. 10CFR55.45 and 55.49



III. PERFORMANCE OBJECTIVES/ISCT SUMMARY

A. ISCT Summary

- ISCT #1 Respond to a reactor recirc pump trip. (3449650403)
SSS/ASSS K/A Rating 295001 AA2.01-3.8
- ISCT #2 Perform the actions for one recirc pump trip. (2000010501)
CSO/E K/A Rating 295001 AA1.01-3.5
- ISCT #3 Direct the actions required per EOP-RPV Section RP.
SSS/ASSS (3449410603)
K/A Rating 295037 SG.12-4.6
- ISCT #4 Direct the actions required per EOP-RPV Section RQ.
SSS/ASSS (3449390603)
K/A Rating 295037 SG.12-4.6
- ISCT #5 Direct the actions required per EOP-C5, Level/Power Control.
SSS/ASSS (3449570603)
K/A Rating 295037 SG.12-4.6
- ISCT #6 Perform the actions required for an anticipated trip without
CSO/E scram. (2000200501)
K/A Rating 295037 EA1.11-3.5
- ISCT #7 Perform the actions required for an anticipated trip without
CSO/E scram. (2000200501)
K/A Rating 295037 EA1.01-4.6



ISCT #8 Perform actions required per EOP-PC Section SPT.
SSS/ASSS (3449450603)
K/A Rating 395013 SG.12-4.2

ISCT #9 Operate RHR in the suppression pool cooling mode.
CSO/E (2059240101)
K/A Rating 295013 AA1.01-3.9

ISCT #10 Direct the actions required per EOP-C5, Power/Level Control.
SSS/ASSS (3449570603)
(K/A Rating 295037 SG.12-4.6)

ISCT #11 Perform the actions required for an anticipated trip without
scram. (2000200501)
CSO/E
K/A Rating 295037 SG.10-3.9

ISCT #12 Perform the actions required for an anticipated trip without
scram. (2000200501)
CSO/E
K/A Rating 295037 SG.10-3.9

ISCT #13 Perform the actions required for an anticipated trip
without scram. (2000200501)
CSO/E
K/A Rating 295037 SG.10-3.9

ISCT #14 Perform the actions required for an anticipated trip without
scram. (2000200501)
CSO/E
K/A Rating 295037 SG.10-3.9

ISCT #15 Perform the actions required for an anticipated trip without
scram. (2000200501)
CSO/E
K/A Rating 295037 SG.10-3.0

ISCT #16 Scram the reactor manually and take immediate actions.
CSO/E (2010130101)
K/A Rating 295037 EA1.01-4.6



ISCT #17 Classify emergency events requiring emergency plan
SSS/ASSS implementation. (3440190303)
K/A Rating 294000 AI.16-4.7

ISCT #18 Ensure required notifications of on-site and off-site
SSS/ASSS personnel during off normal events. (3440390303)
K/A Rating 294001 AI.16-4.7

B. Performance Objectives

- 1.0 Demonstrate effective communications in accordance with the Operations Department Instruction on verbal communications.
- 2.0 Demonstrate for those exercises that require use of the Emergency Plan, an understanding of the roles and responsibilities of the SSS, ASSS/STA, and CSO/NAOE in accordance with Operations Department Instructions.
- 3.0 SRO's shall demonstrate an understanding of command and control, EOP place keeping techniques and effective use of control room personnel during emergency conditions.
- 4.0 Operators shall demonstrate "Self Verification" work practices in accordance with Operations Department Instructions.
- 5.0 Given a reactor plant operating at approximately 90% power and a feedpump malfunction the operating crew will take action to maintain RPV level above the low level scram setpoint.
- 6.0 Given a reactor plant operating at approximately 60% power with only one feedwater pump and a loss of a reactor recirc pump with an entry into the restricted zone of the power to flow map, the operating crew will take action to exit the restricted zone.
- 7.0 Given a reactor plant that remains critical when a scram signal is received, the operating crew will perform actions to maintain RPV pressure within the Heat Capacity Temperature Limit and insert rods by repeated scrams.



ATTACHMENT 1
PRE-EVALUATION BRIEFING

IV. LESSON CONTENT
LESSON CONTENT

DELIVERY NOTES

OBJECTIVES/
NOTES

1. Establish simulator initial conditions.
2. Bring crew into the classroom and brief using Attachment 6, Simulator Briefing Checklist.
3. Identify the roles and responsibilities and individuals performing the function for:
 - a. Crew Evaluator
 - b. SRO Evaluator
 - c. RO Evaluator(s)
 - d. Console Operator
 - e. If NRC is present introduce the NRC participants.
4. Identify the roles of the participants.
 - a. SSS
 - b. ASSS
 - c. CSO
 - d. AOE's
 - e. SEPC (as applicable)
 - f. STA (as applicable)
5. Ensure video tape is running and participants are aware:
(NCTS-2)
 - a. That video taping is being conducted.
 - b. The reason for the video tape.

Discuss each item on the checklist. This checklist should be discussed during the first evaluated lesson plan during a training week and prior to subsequent evaluated lesson plans as necessary.

Ensure the participants understand that the evaluators will be taking extensive notes during the session and not to be concerned with the evaluators actions.



ATTACHMENT 1
PRE-EVALUATION BRIEFING

LESSON CONTENT

DELIVERY NOTES

OBJECTIVES/
NOTES

6. Refer to Attachment 2. Turnover information and conduct shift turnover with the SSS.



TIME	EVENT	INSTRUCTOR ACTIVITY	PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
		<p>Special Instructions:</p> <p>Markup as out-of-service:</p> <p>C Rx Feed Pump, 2FWS-MOV47C, 2CNM-MOV84C</p> <p>Post Yellow 80% - 100% Rod Line sign on P603</p> <p>Simulator Operation:</p> <p>Initialize: IC-17</p> <p>Reduce pwr to 90%</p> <p>Place recirc flow control in loop manual</p> <p>Preset Malfunctions:</p> <p>1,RD17,60</p> <p>Preset Remote Functions:</p> <p>None</p> <p>Preset Instructor Overrides</p> <p>1,2CNM-C08-D,,,OFF CNM-MOV84C 2,2FWS-C07-C,,,OFF FWS-MOV47C</p> <p>Provide turnover information to SSS</p>			



TIME	EVENT	INSTRUCTOR ACTIVITY	PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
		<p>Initial Conditions:</p> <p>90% power, raising power</p> <p>IAW OP-101D</p> <p>Awaiting reactor analysis decision on power increase.</p> <p>80-100% rod line</p> <p>Out-of-service equipment:</p> <p>C Reactor Feedwater is out of service for seal replacement.</p> <p>Surveillance scheduled:</p> <p>None</p> <p>Allow not more than five minutes to walk down the panels.</p>			
T = 0		Commence the scenario		<p>Walk down control boards.</p> <p>SSS Briefs crew</p> <p>Crew assumes the shift</p> <p>Continue with normal power operation</p>	



TIME	EVENT	INSTRUCTOR ACTIVITY	ATTACHMENT PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
1 = 2		<p>Insert IO 3,AM-2FWS-B51,,,78,10</p> <p>Role Play: As Turbine Building Aux. Operator report there is a loud grinding noise coming from the B Rx. Feedpump.</p> <p>Note: If crew decides to immediately trip the reactor feedpump a recirc flow control valve runback may occur.</p>	<p>B feedpump motor current increase to approximately 500 amps.</p>	<p>Crew</p> <p>1. Identifies/reports rising current on B RFP.</p> <p>SSS/ASSS</p> <p>1. Orders power reduction to 65% IAW OP-101D.</p> <p>2. Contact Chemistry.</p> <p>3. Contact Power Control.</p> <p>4. Contact Operations Management.</p> <p>CSO/E</p> <p>1. Lowers reactor power using recirc flow control in manual.</p>	<p>Sat/Unsat/NA P.O.#5</p> <p>Sat/Unsat/NA</p> <p>Sat/Unsat/NA</p> <p>Sat/Unsat/NA</p> <p>Sat/Unsat/NA</p>
1 = 7		<p>When power is between 70 - 75% or if 5 minutes has elapsed and the crew has not commenced the power reduction.</p> <p>Enter Malfunction 2,FW03B</p> <p>Remove IO #3, AM-2 FWS-B51 when the crew or the malfunction trips the B Rx Feed Pump.</p>	<p>B RFP trips</p>	<p>CSO/E</p> <p>1. Reports pump trip.</p> <p>2. Shuts LV10B</p>	<p>Sat/Unsat/NA</p> <p>Sat/Unsat/NA</p>



TIME	EVENT	INSTRUCTOR ACTIVITY	PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
				SSS/ASSS	
				1. Orders recirc reduced to minimum (or until water level begins to restore).	Sat/Unsat/NA
		Role Play: As Turbine Building AO report that you think the B FW Pump seized. Was making lots of noise now making none.		CS0/E	
		When crew has stabilized RPV level and power Enter Malfunction 3,RR10B	B Recirc Pump Trips on instantaneous over current (50G).	1. Reduces power using recirc flow control as ordered to maintain RPV level above 159.3". 2. Monitor RPV level and report.	Sat/Unsat/NA Sat/Unsat/NA
			Restricted zone of power to flow map entered.	Crew Recognize/report B recirc pump trip.	Sat/Unsat/NA P.O.#6
		If crew insert Cram rods and power is not $\leq 36\%$ CTP then crew should increase recirc flow to exit restricted zone.			



TIME

EVENT

INSTRUCTOR ACTIVITY

ATTACHMENT 2
PLANT RESPONSE

OPERATOR ACTIONS

EVALUATOR COMMENTS

SSS

Direct actions for RR pump
trip IAW OP-101D Section
H.2.0 and OP-29 Section
H.2.0.

ISCT #1
Sat/Unsat/NA

CSO/E

1. OP-101D Section H.2.0

a. Monitor for power
oscillations.

Sat/Unsat/NA

b. Exit the restricted
zone by increasing core
flow in the operating
loop or inserting cram
rods.

ISCT #2
Sat/Unsat/NA

2. OP-29 Section H.2.0

a. Ensure operating loop
flow is less than
41,800 gpm.

Sat/Unsat/NA



TIME	EVENT	INSTRUCTOR ACTIVITY	PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
		Role Play: When called as I&C report you will send personnel to change the scram and rod block setpoints.		<ul style="list-style-type: none"> b. Loop flow control in loop manual. c. Notify I&C to perform APRM scram and rod block setpoint change. d. Close the A recirc loop flow control valve. 	Sat/Unsat/NA
		Role Play: As electrician or AO report overcurrent trip on 4B breaker.		SSS/ASSS/CSO Request investigation by electricians.	Sat/Unsat/NA
			4 hours - 3.4.4.1		
			<ul style="list-style-type: none"> a. Flow control loop man. b. $\leq 70\%$ Rated Power c. Increase MCPR to 1.08 d. Reduce MAPLHGR e. Reduce scram and rod block setpoints 	SSS/ASSS 1. Ensure compliance with technical specifications for limits (3.4.1.1) (within four hours)	Sat/Unsat/NA
		Role Play: As Reactor Engineering acknowledge request to reduce thermal limits for single loop operation.	f. Operating loop $\leq 41,800$ gpm	<ul style="list-style-type: none"> a. Recirc flow control in loop manual. b. Power $\leq 70\%$ c. Notify reactor analyst to reduce thermal limits. 	Sat/Unsat/NA Sat/Unsat/NA Sat/Unsat/NA



TIME	EVENT	INSTRUCTOR ACTIVITY	PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
		After immediate actions taken for recirc pump trip and plant conditions are stable		d. Notify I&C to perform APRM and rod block setpoint changes.	Sat/Unsat/NA
		Enter Malfunction EHC System Pressure Regulator A Failure - High		e. Verify/reduce operating loop to $\leq 41,800$ gpm.	Sat/Unsat/NA
		4,TC01A	GP I Isolation and failure to scram.	2. Calls OPs Management to inform them of the recirc pump trip.	
				CSO/E	
				Report/respond to alarms.	Sat/Unsat/NA
			Large drop in reactor pressure.	CREW	
			MSIV closure.	1. Recognize/Report TCV and BPVs open.	Sat/Unsat/NA P.O.#7
			Rx fails to scram	2. Recognize/Report MSIVs closed	Sat/Unsat/NA
			After MSIV closure, pressure increases.	3. Recognize/Report failure of reactor to scram.	Sat/Unsat/NA
				SSS	
				1. Enter EOP-RPV control: Exercise sections RL, RP and RQ concurrently.	Sat/Unsat/NA



TIME

EVENT

INSTRUCTOR ACTIVITY

ATTACHMENT

PLANT RESPONSE

OPERATOR ACTIONS

EVALUATOR COMMENTS

2. Directs mode switch placed
in shutdown.

Sat/Unsat/NA

CSO/E

Performs actions of OP-101C,

H.1.0

1. Mode switch to S/D

Sat/Unsat/NA

2. Reports failure of rods to
insert

Sat/Unsat/NA

3. Reports power level

Sat/Unsat/NA

SSS/ASSS

1. Directs pressure control
using SRVs with a pressure
band below 1037 psig.

ISCT #3

Sat/Unsat

2. Directs action of RQ

ISCT #4

Sat/Unsat/NA

a. Manually initiate RRCS
(If required)

Sat/Unsat/NA

b. Direct RR pumps tripped.

Sat/Unsat/NA

c. Directs action per EOP-6
Attachment 14 to insert
rods.

Sat/Unsat/NA

3. Exit RL and enter C5

Sat/Unsat/NA

a. Direct ADS logic inhibit
to on.

ISCT #5

Sat/Unsat/NA



TIME	EVENT	INSTRUCTOR ACTIVITY	ATTACHMENT PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
				b. Direct actions per C5 to maintain level.	Sat/Unsat/NA
				CSO/E	
		To bypass RSCS enter MF 5,RW02		1. Takes manual control of the SRV's and appropriate action to maintain RPV pressure within the prescribed band.	Sat/Unsat/NA
		To jumper RPS enter MF 6,RP02		2. Manually initiates RRCS (if required).	Sat/Unsat/NA
		To defeat ARI enter MF 7,RP14		3. Trip recirc pumps.	Sat/Unsat/NA
		Clear MF 1		4. Place ADS inhibit switches to on.	ISCT #6 Sat/Unsat/NA
		When the scram is reset		5. Insert rods in accordance with RQ and EOP-6 Attachment 14.	Sat/Unsat/NA
				6. Takes appropriate action to maintain RPV level as ordered.	Sat/Unsat/NA
				7. Resets RPS to allow SDV to drain.	ISCT #7 Sat/Unsat/NA
				SSS/ASSS	
				1. Enter PC control when SP temp. $\geq 90^{\circ}\text{F}$. Exercise DWT, SPL, PCP, PCH, and SPT concurrently.	Sat/Unsat/NA



TIME	EVENT	INSTRUCTOR ACTIVITY	PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
				2. Order suppression pool cooling initiated.	ISCT #8 Sat/Unsat/NA
				CSO/E	
				1. Place RHR A(B) in suppression pool cooling per OP-31.	ISCT #9 Sat/Unsat/NA
				a. Open 2SHP*MOV90A(B)	Sat/Unsat/NA
				b. Throttle 2SHP*MOV33A(B) for approx. 7400 gpm.	Sat/Unsat/NA
				c. Start RHR pump 1A(B).	Sat/Unsat/NA
				d. Throttle open FV 38A(B) to establish approx. 7450 gpm.	Sat/Unsat/NA
			SP temp is approaching 110°F.	SSS	
				Order SLC initiation before SPT reaches 110°F.	Sat/Unsat/NA
				CSO/E	
				1. Initiates SLC manually (if not initiated).	Sat/Unsat/NA
				a. Takes (both) SLC pump keylock switches to start.	Sat/Unsat/NA



TIME	EVENT	INSTRUCTOR ACTIVITY	PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
				b. Verify/reports immediate response; Tank outlet valves 1A and 1B open, both pumps start, both squib valve ready lights out (3A and 3B).	Sat/Unsat/NA
				c. Monitors/reports parameters.	Sat/Unsat/NA
				d. Verify/report RMCU isolation.	Sat/Unsat/NA
				SSS	
				1. Direct actions per EOP-C5 to lower RPV water level to reduce power.	ISCT #10 Sat/Unsat/NA
				2. Directs RPV pressure maintained below the HCTL as required.	Sat/Unsat/NA
				3. Directs DW cooling restored	Sat/Unsat/NA
				4. Directs H ₂ /O ₂ monitoring restored. (or contact Chemistry to sample)	Sat/Unsat/NA
				CSO/E	
				1. Carry out actions directed by SSS.	Sat/Unsat/NA



TIME	EVENT	INSTRUCTOR ACTIVITY	PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
				2. Terminate and prevent	
				a. Feedwater	ISCT #11 Sat/Unsat/NA
				b. RCIC	ISCT #12 Sat/Unsat/NA
				c. HPCS	ISCT #13 Sat/Unsat/NA
				d. RHR/LPCS	ISCT #14 Sat/Unsat/NA
				e. Maintain suppression pool cooling.	ISCT #15 Sat/Unsat/NA
				3. Restore DH cooling	Sat/Unsat/NA
			RPV water level lowers, reactor power lowers.	4. Restores H ₂ /O ₂ Monitoring	Sat/Unsat/NA
				CSO/E	
				Reports RPV water level when power is below 4%.	Sat/Unsat/NA
				SSS	
				1. Directs water level to be maintained between -45 and the level at which power went below 4%.	Sat/Unsat/NA
				2. Directs Nitrogen supply to SRV's restored.	Sat/Unsat/NA



TIME	EVENT	INSTRUCTOR ACTIVITY	PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
				CSO/E	
			When scram discharge volume is drained crew will attempt another scram.	1. Takes appropriate actions to maintain RPV level within the prescribed band.	Sat/Unsat/NA
				2. Restores Nitrogen supply to SRV's	Sat/Unsat/NA
				3. Report SDV drained.	Sat/Unsat/NA
				4. Insert manual scram after SDV level alarms clear.	ISCT #16 Sat/Unsat/NA
				CREW	
				Recognizes/reports rod movement.	Sat/Unsat/NA
				SSS/ASSS	
				Recognizes/receives report that rods are inserting and has crew concentrate on restoring level and controlling pressure.	Sat/Unsat/NA
				SSS/ASSS	ISCT #17
				1. Classifies event as Site Area Emergency (SLC initiated) due to failure to complete a scram.	Sat/Unsat/NA



TIME

EVENT

INSTRUCTOR ACTIVITY

ATTACHMENT

PLANT RESPONSE

OPERATOR ACTIONS

EVALUATOR COMMENTS

2. Makes/directs notifications
to be made

ISCT #18
Sat/Unsat/NA

TERMINATION CUES:

When RPV level is above 20 inches
and being restored, RPV press. is
<950 psig and being controlled
per EOP-RPV and event
classification/notification are
in progress.

or

Continue with scenario
to witness/evaluate event
recovery actions.

SSS/ASSS

1. Directs water level
restored to 159.3 - 202.3
using feedwater.
2. Cautions operator not to
exceed cooldown rate by
excessive feed addition.

Sat/Unsat/NA

Sat/Unsat/NA

CSO/E

1. Slowly restore water level
using feedwater.

Sat/Unsat/NA



TIME	EVENT	INSTRUCTOR ACTIVITY	ATTACHMENT PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR COMMENTS
				SSS/ASSS	
				1. Directs pressure controlled using SRV's not to exceed 100°/Hr cooldown rate	Sat/Unsat/NA
				CSO/E	
				1. Maintains pressure/cooldown as directed.	Sat/Unsat/NA
				SSS/ASSS	
				1. Direct SLC secured	Sat/Unsat/NA
				CSO/E	
				1. Secures SLC	Sat/Unsat/NA
				2. Insert SRM's/IRM's and range down	Sat/Unsat/NA
			When DW pressure <1.68 psig and RPV level is above level 1	SSS/ASSS	
				1. Direct Div I/II ECCS initiations reset.	Sat/Unsat/NA
				2. Direct RCIC turbine reset.	Sat/Unsat/NA
				3. Direct RCIC initiated.	Sat/Unsat/NA



TIME

EVENT

INSTRUCTOR ACTIVITY

ATTACHMENT 2
PLANT RESPONSE

OPERATOR ACTIONS

EVALUATOR COMMENTS

CS0/E

- | | |
|---|--------------|
| 1. Resets Div I/II ECCS initiations. | Sat/Unsat/NA |
| 2. Resets RCIC turbine. | Sat/Unsat/NA |
| 3. Initiates RCIC | Sat/Unsat/NA |
| 4. Restores/maintains RPV level as ordered using RCIC/FW. | Sat/Unsat/NA |
| 5. Maintains pressure/cooldown using SRV's and RCIC. | Sat/Unsat/NA |

RPV level above level 3.

SSS

- | | |
|--|--------------|
| 1. Directs scram reset | Sat/Unsat/NA |
| 2. Directs crew to lineup steam condensing | Sat/Unsat/NA |

CS0/E

- | | |
|---|--------------|
| 1. Resets scram | Sat/Unsat/NA |
| 2. Performs lineups for steam condensing IAW OP-31. | Sat/Unsat/NA |

Termination Cue:

Scenario may be concluded at the lead evaluators discretion.



POST EVALUATION ASSESSMENT

LESSON CONTENT

DELIVERY NOTES

NOTES AND
COMMENTS

1. Ensure operators stand fast and do not communicate immediately after simulator is placed in freeze.
2. Evaluators should caucus to determine if any follow-up questions are necessary.
3. Ask follow-up questions before the SSS and crew is released.
4. Instruct the SSS to assess the session with the crew to determine crew strengths and areas for improvement. This should be documented in Attachment 4 for later evaluations.
4. Evaluation Team Shall:
 - a. Determine crew strengths and areas for improvement.
 - b. Conduct a crew evaluation in Attachment 13.
 - c. Determine SAT/UNSAT/NA for all critical tasks and who performed each task.
 - d. Conduct individual evaluations on Attachments 10 and 11.
5. Following the evaluation (if NRC) is present) the results of evaluation should be given to the NRC examiners.
6. Conduct a post exercise assessment as follows:
 - a. Review the learning objectives. . .
Have the crew state how each was met during the session.



LESSON CONTENT

DELIVERY NOTES

- | | |
|---|--|
| <p>b. Participants Self-Evaluation</p> <p>Discussion should focus on measurable behaviors and how these contributed to or detract from meeting the objectives.</p> <p>c. Instructors assessment and performance (NCTS-2) recommendations.</p> | <p>Allow participants to evaluate themselves against the learning objectives and tasks for the session.</p> <p>Discussion should center on performances and not personal feelings or interpretations of actions.</p> |
| <p>7. Session and program feedback.</p> | <ol style="list-style-type: none"> 1. Assess the participants performance for those objectives and tasks not included in the crew self-assessment. Use the video tape in the assessment to more effectively assess communications, teamwork, and prioritization, if necessary. 2. Provide feedback on ways to improve performance as appropriate. |
| <p>8. Document session</p> | <ol style="list-style-type: none"> 1. Distribute Simulator Training Evaluation Feedback Form, NTI-4.4 Attachment 13. 2. Provide students with time to complete form. 1. Complete Post Evaluation Summary, Attachment 4. 2. Place a copy in file for next training session. 3. Document any NRC/INPO operating concerns as an items list attached to the training record. (TR) |

