NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION

UNIT II OPERATIONS

<u>0</u> 2	2-REQ-009-1DY-2-02	Revision	3			
. TITLE: FEEDWATER	PUMP TRIP/RECIRC P	JMP TRIP/EHC	MALFUNCTION CAUSES AN			
	MSIV ISOLATION	WITH A FAILU	RE TO SCRAM			
	. SIGNATI	URE	DATE			
PREPARER	(1/1/1/d.		<u>6/17/7/ </u>			
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TRAINING AREA SUPERVISOR	<u> Sowwi</u>	10	6/14/91			
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(Effective Date: <u>6/14/9/</u>)						
Number of Pages: <u>25</u>						
	<u>Date</u>		<u>Pages</u>			
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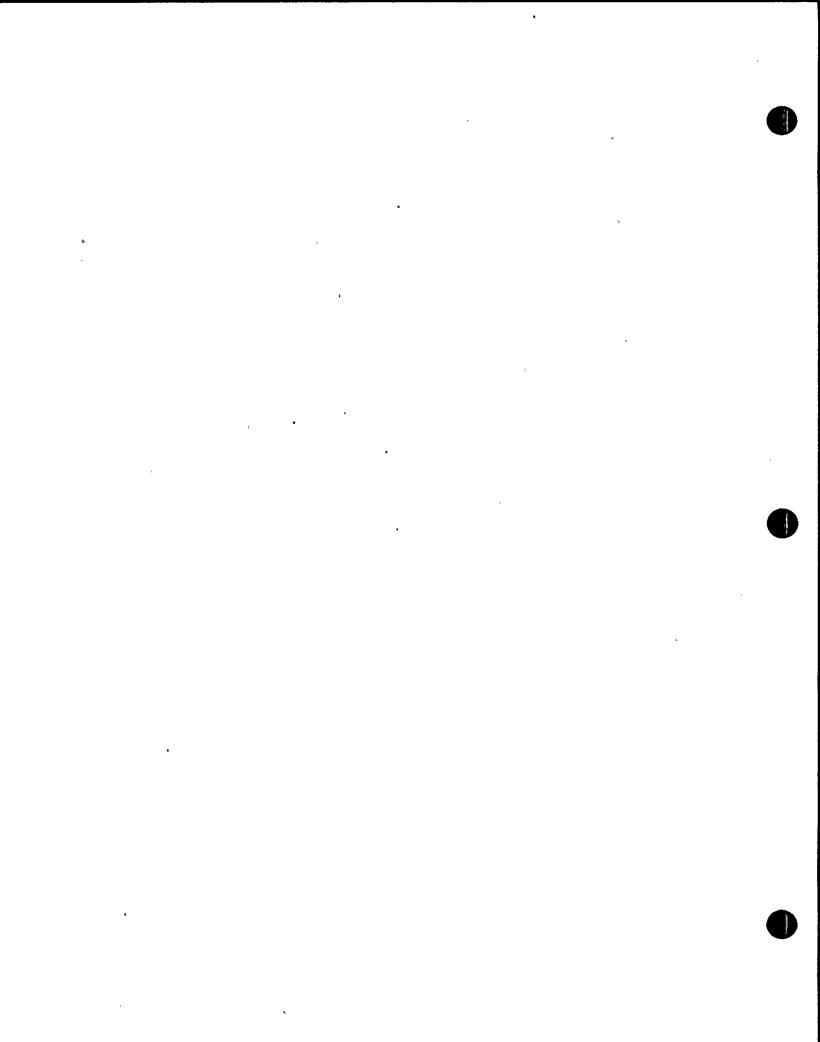
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I. TRAINING DESCRIPTION

- A. Title of Lesson: Feedwater Pump Trip/Recirc Pump Trip/EHC Malfunction
 Causes an MSIV Isolation with a Failure to Scram
- Lesson Description: The scenario begins with the crew assuming the shift В. 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 sytem 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:

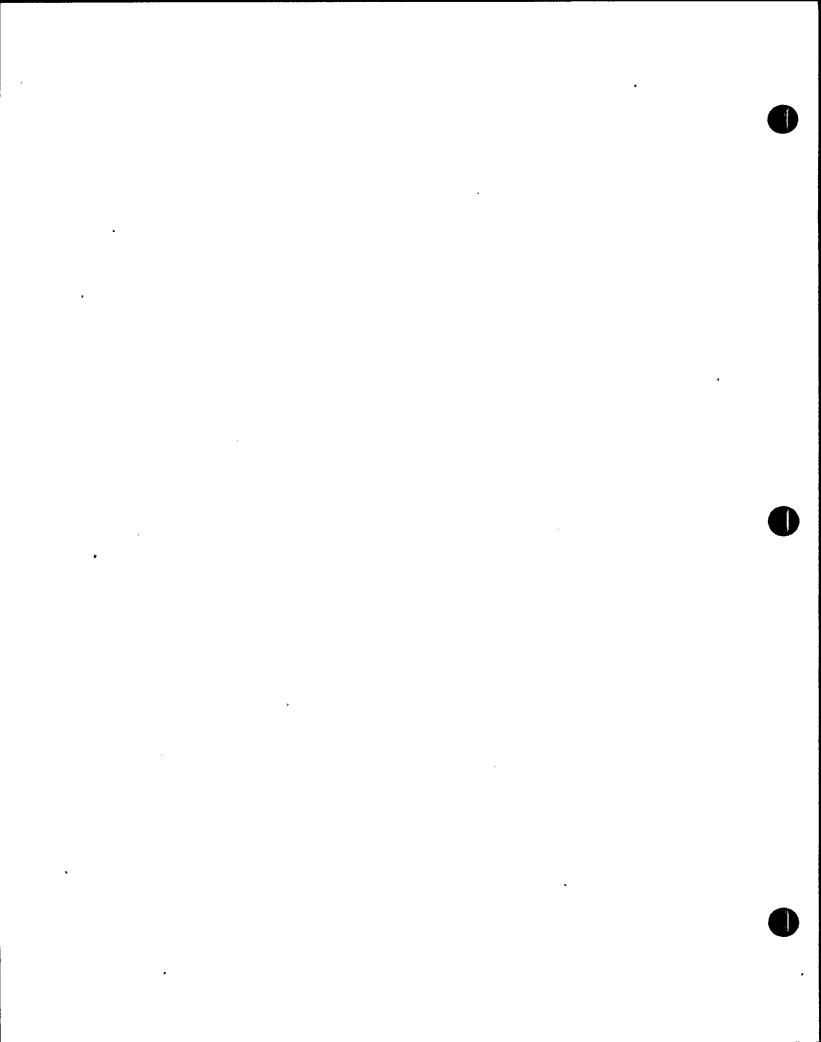
- 1. N2-OP-3, Condensate and Feedwater System
- 2. N2-OP-23, Main Turbine EHC
- 3. N2-OP-29, Reactor Recirculation System
- 4. N2-OP-30, Control Rod Drive
- 5. N2-OP-31, Residual Heat Removal System
- 6. N2-OP-83, Primary Containment Isolation System
- 7. N2-OP-101C, Plant Shutdown
- 8. N2-OP-101D, Power 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-BO5-2-OO, Loss of Protective System Channel
 - 2. O2-REQ-MAN-BO8-2-00, Failure of the Reactor to Scram
 - 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

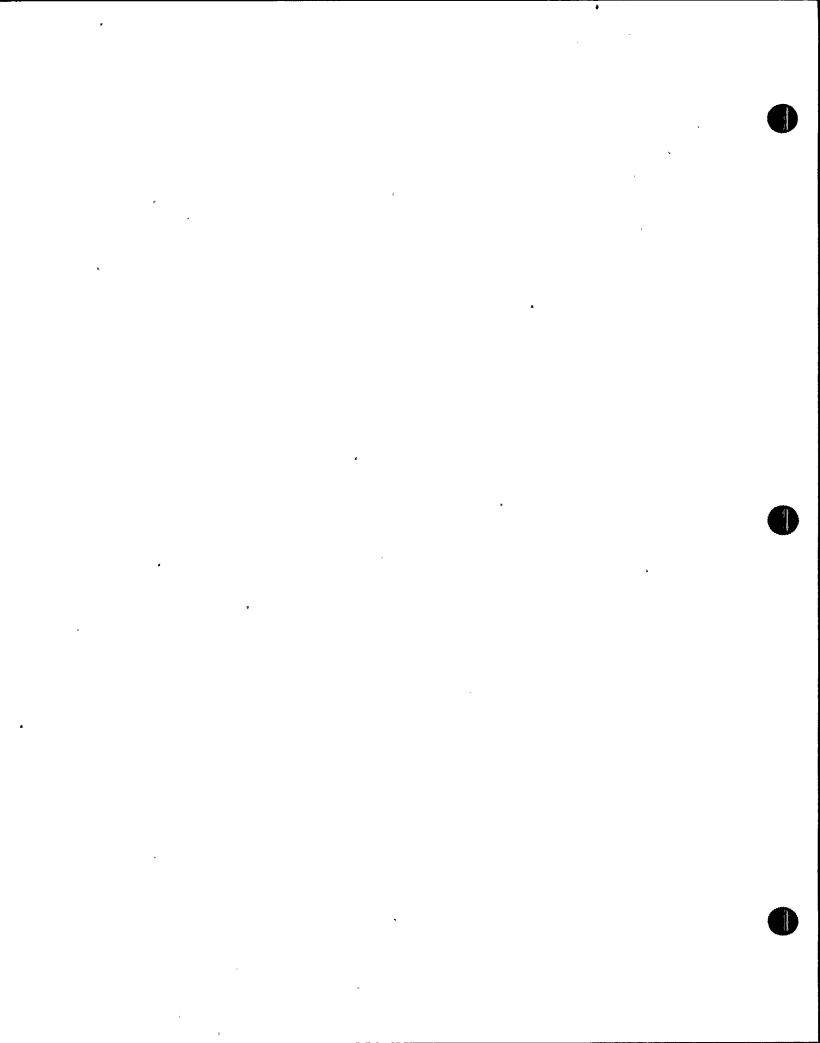
CSO/E scram. (2000200501)

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 CSO/E scram. (2000200501)

K/A Rating 295037 SG.10-3.9

ISCT #12 Perform the actions required for an anticipated trip without CSO/E scram. (2000200501)

K/A Rating 295037 SG.10-3.9

ISCT #13 Perform the actions required for an anticipated trip CSO/E without scram. (2000200501)

K/A Rating 295037 SG.10-3.9

ISCT #14 Perform the actions required for an anticipated trip without CSO/E scram. (2000200501)

K/A Rating 295037 SG.10-3.9

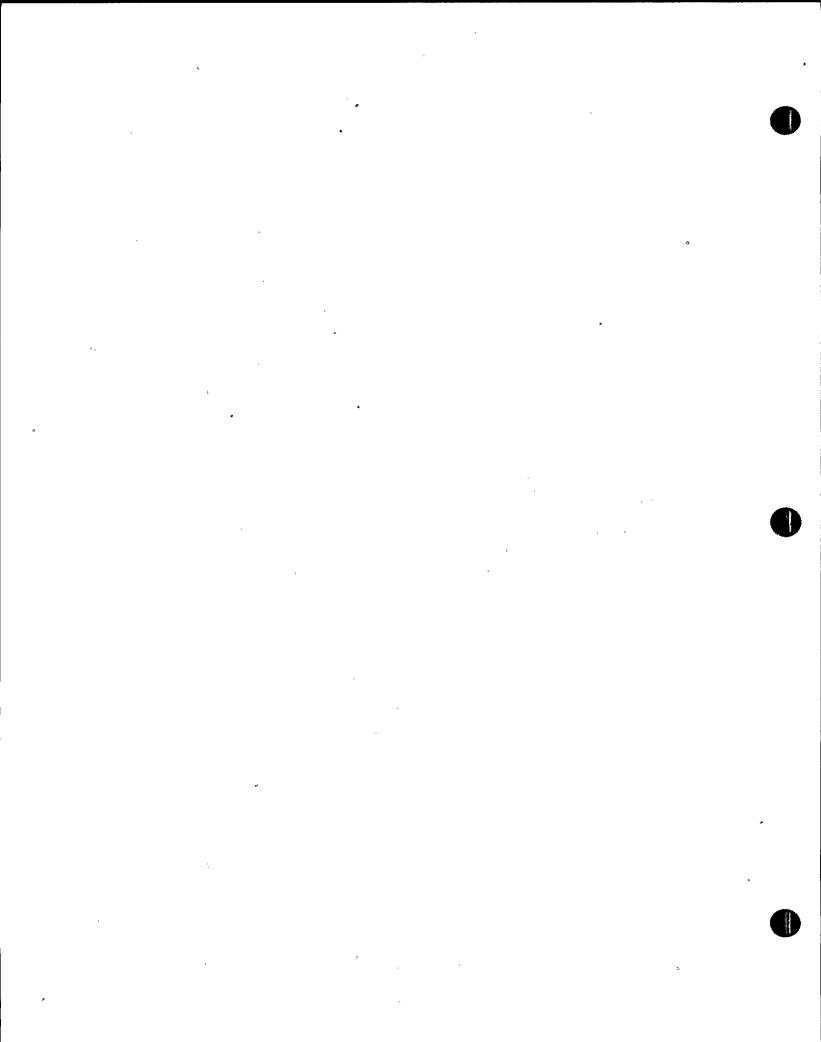
ISCT #15 Perform the actions required for an anticipated trip without CSO/E scram. (2000200501)

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



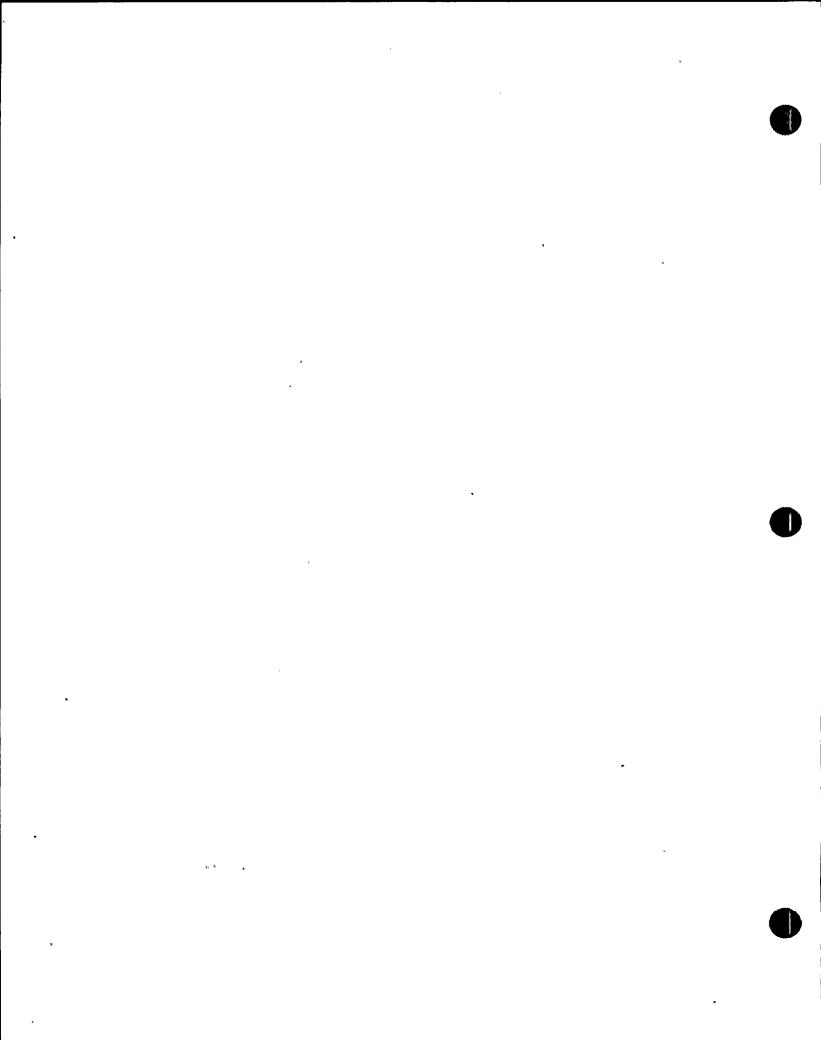
ISCT #17 Classify emergency events requiring emergency plan SSS/ASSS implementation. (3440190303)

K/A Rating 294000 Al.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 Al.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.



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IV. LESSON CONTENT LESSON CONTENT

DELIVERY 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. AOEs
 - e. SEPC (as applicable)
 - f. STA (as applicable)
- 5. Ensure video tape is running and participants are aware:

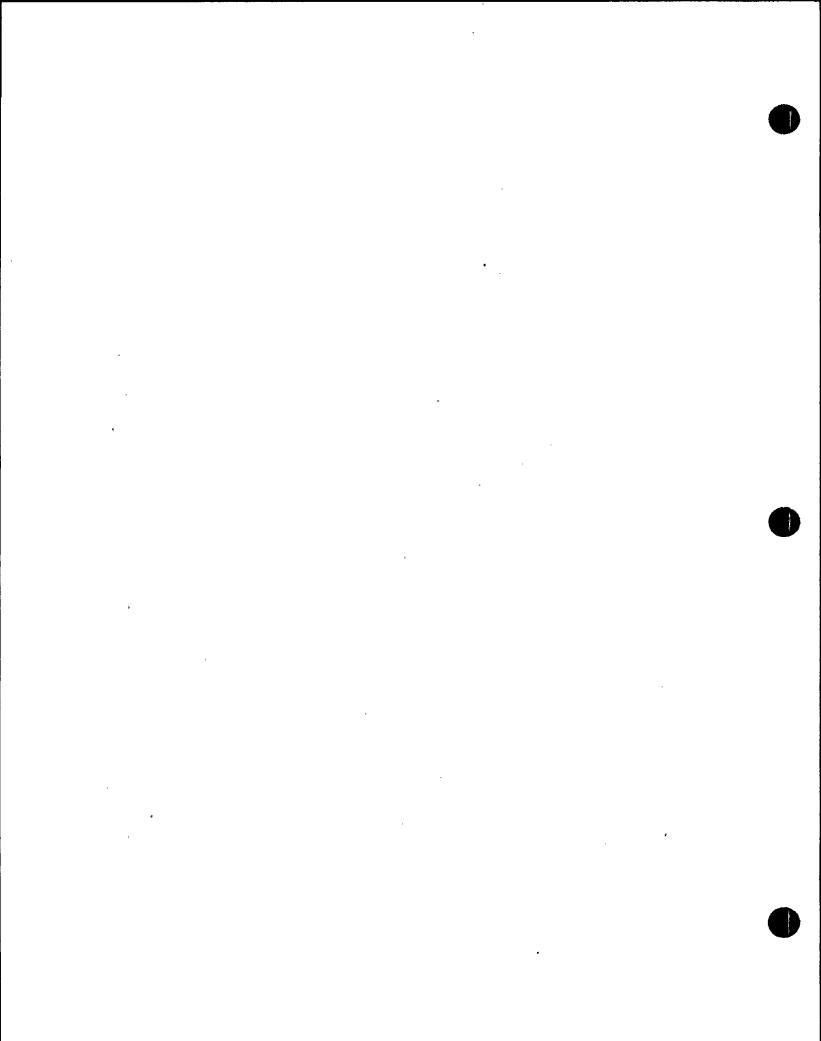
(NCTS-2)

- 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.



LESSON CONTENT

DELIVERY NOTES

OBJECTIVES/ NOTES

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

. • Programme (A) • PLANT RESPONSE

OPERATOR ACTIONS

EVALUATOR COMMENTS

- . i.

Special Instructions:

Markup as out-of-service:

C Rx Feed Pump, 2FWS-MOV47C,

2CNM-MOV84C

Post Yellow 80% - 100% Rod Line
sign on P603

Simulator Operation:

Initialize: IC-17

Reduce pwr to 90%

Place recirc flow control in

loop manual

Preset Malfunctions:

1,8017,60

Preset Remote Functions:

None

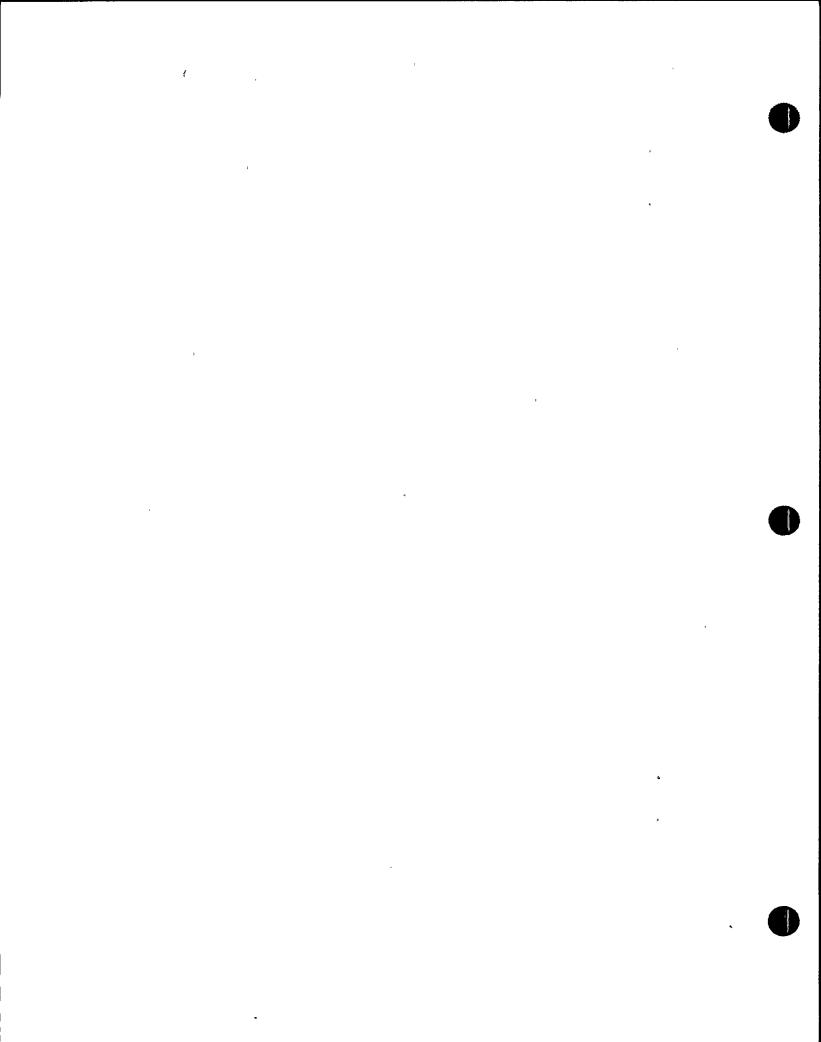
Preset Instructor Overrides

1,2CNM-CO8-D,,,OFF CNM-MOV84C

2,2FWS-C07-C,,,OFF FWS-MOV47C

Provide turnover information

to SSS



PLANT RESPONSE

INSTRUCTOR ACTIVITY

OPERATOR ACTIONS

EVALUATOR COMMENTS

Initial Conditions:

90% power, raising power
IAW OP-101D
Awaiting reactor analysis
decision on power increase.
80-100% rod line

Out-of-service equipment:

C Reactor Feedwater is out of service for seal replacement.

Surveillance scheduled:

None

Allow not more than five minutes to walk down the panels.

T = 0

Commence the scenario

Walk down control boards.

SSS Briefs crew

Crew assumes the shift

Continue with normal

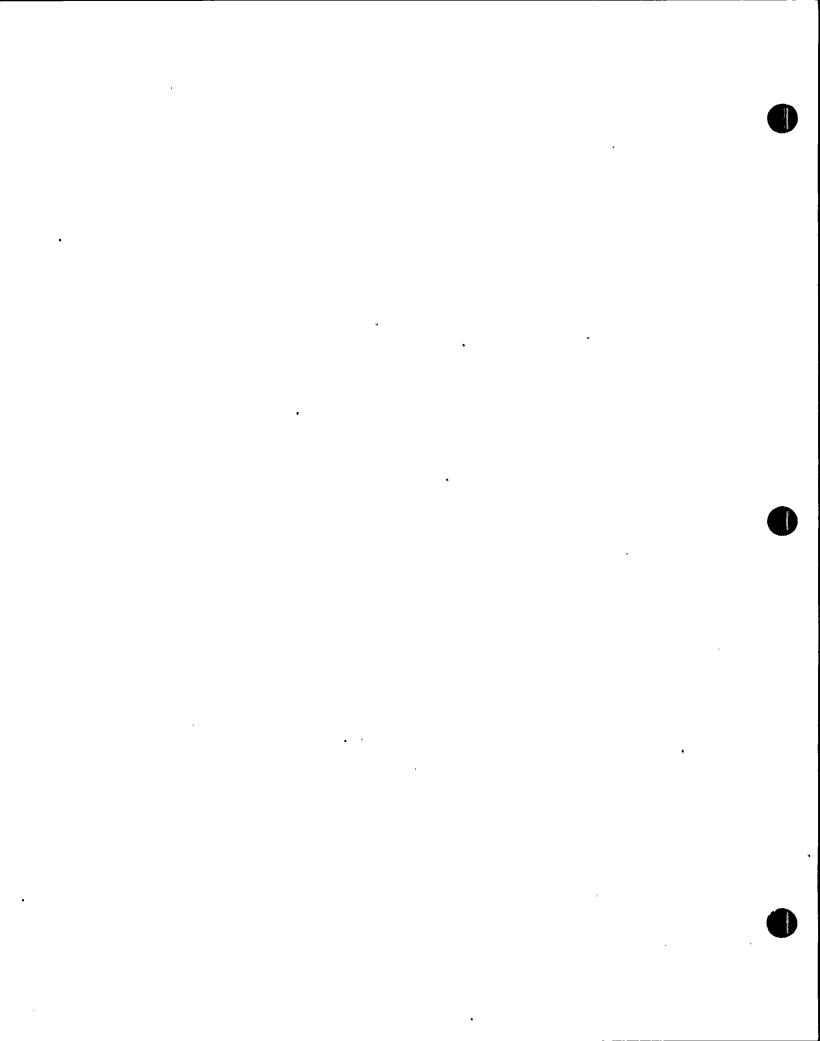
power operation

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TIME	EVENI	INSTRUCTOR ACTIVITY	ATTACHMENT PLANT RESPONSE	OPERATOR ACTIONS	EVALUATOR_COMMENTS
1 = 2		Insert IO			
		3,AM-2FWS-B51,,,78,10	B feedpump motor current		SF %
			increase to approximately	-	
		Role Play: As Turbine Building	500 amps.	Crew	
		Aux. Operator report there is a	•	 Identifies/reports rising 	Sat/Unsat/NA P.O.#
		loud grinding noise coming from	2	current on B RFP.	
		the B Rx. Feedpump.			
				SSS/ASSS	
		Note: If crew decides to		1. Orders power reduction to	Sat/Unsat/NA
		immediately trip the reactor		65% IAW OP-101D.	
		feedpump a recirc flow control		2. Contact Chemistry. •	Sat/Unsat/NA
		valve runback may occur.		3. Contact Power Control.	Sat/Unsat/NA
			a	4. Contact Operations	Sat/Unsat/NA
				Management.	
				CSO/E	
1 = 7		When power is between 70 - 75% or		1. Lowers reactor power using	Sat/Unsat/NA
		if 5 minutes has elapsed and the		recirc flow control in	-
		crew has not commenced the power		manual.	
		reduction.			
	•	Enter Malfunction	•		
		2,FW03B	B RFP trips	CSO/E	
				1. Reports pump trip.	Sat/Unsat/NA
	•	Remove IO #3, AM-2 FWS-B51 when		2. Shuts LV10B	Sat/Unsat/NA
		the crew or the malfunction	•		
		trips the B Rx Feed Pump.		•	
	*	02-REQ-009-1DY-2-02 -10 June	1991		

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TIME

INSTRUCTOR ACTIVITY

ATTACHHENT 2

PLANT RESPONSE OPERATOR ACTIONS

EVALUATOR COMMENTS

SSS/ASSS

 Orders recirc reduced to minimum (or until water level begins to restore). Sat/Unsat/NA

CSO/E

 Reduces power using recirc Sat/Unsat/NA flow control as ordered to maintain RPV level above 159.3".

Monitor RPV level and Sat/Unsat/NA report.

Crew

Recognize/report B recirc pump Sat/Unsat/NA P.O.#6 trip.

Role Play: As Turbine Building
AO report that you think the
B FW Pump seized. Was making
lots of noise now making none.

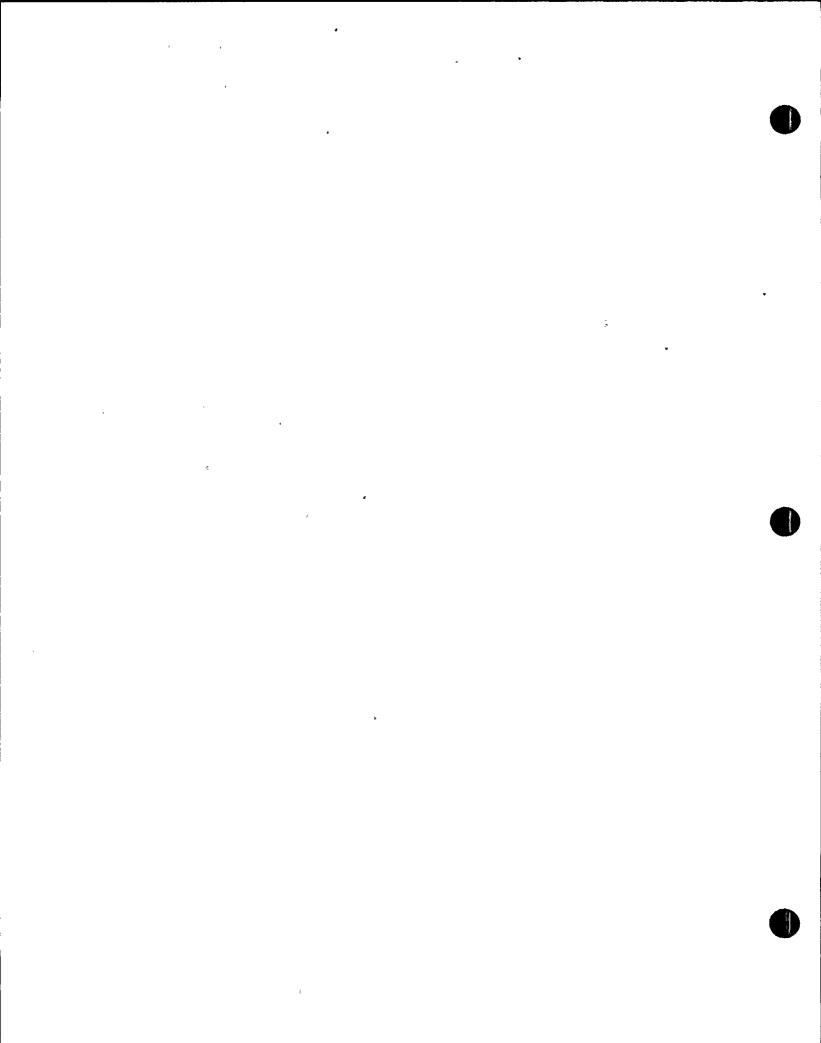
When crew has stabilized RPV
level and power
Enter Malfunction

3,RR10B B Recirc Pump Trips on instantaneous over current

(50G).

Restricted zone of power to flow map entered.

If crew insert Cram rods and power is not <u><36%</u> CTP then crew should increase recirc flow to exit restricted zone.



INSTRUCTOR ACTIVITY

ATTACHHENT 2
PLANT RESPONSE

OPERATOR ACTIONS

EVALUATOR COMMENTS

14. Y

SSS

Direct actions for RR pump ISCT #1
trip IAW OP-101D Section Sat/Unsat/NA
H.2.0 and OP-29 Section
H.2.0.

CSO/E

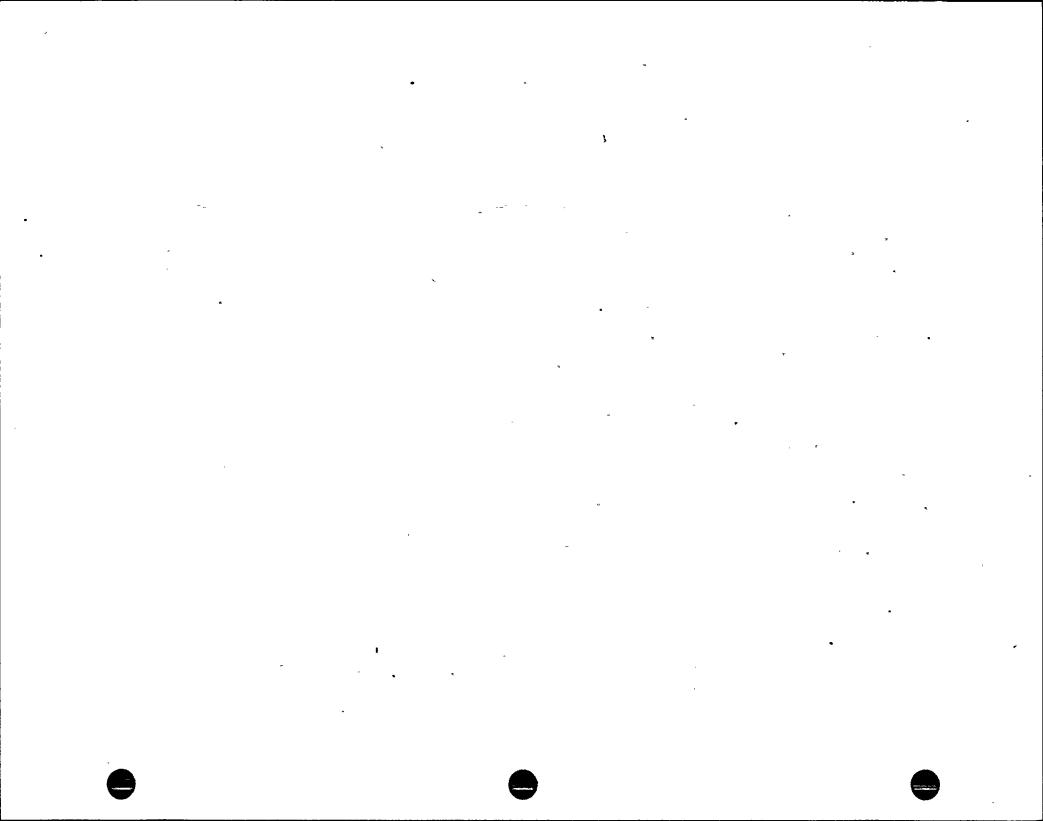
- 1. OP-101D Section H.2.0
 - a. Monitor for power Sat/Unsat/!!A oscillations.
 - b. Exit the restricted ISCT #2

 zone by increasing core Sat/Unsat/NA

 flow in the operating

 loop or inserting cram

 rods.
- 2. OP-29 Section H.2.0
 - a. Ensure operating loop Sat/Unsat/NA flow is less than41,800 gpm.



INSTRUCTOR ACTIVITY

ATTACHHENT 2
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.

b. Loop flow control in loop manual.c. Notify I&C to perform

Sat/Unsat/NA

Sat/Unsat/NA

Sat/Unsat/NA

APRM scram and rod block setpoint change.

d: Close the A recirc loop Sat/Unsat/NA flow control valve.

Role Play: As electrician or. AO report overcurrent trip on 4B breaker.

Request

Request investigation by Sat/Unsat/NA electricians.

4 hours - 3.4.4.1

a. Flow control loop man.

b. ≤70% Rated Power

c. Increase MCPR to 1.08

d. Reduce MAPLHGR

e. Reduce scram and rod block setpoints SSS/ASSS

SSS/ASSS/CSO

1. Ensure compliance with Sat/Unsat/NA
 technical specifications for
 limits (3.4.1.1)
 (within four hours)

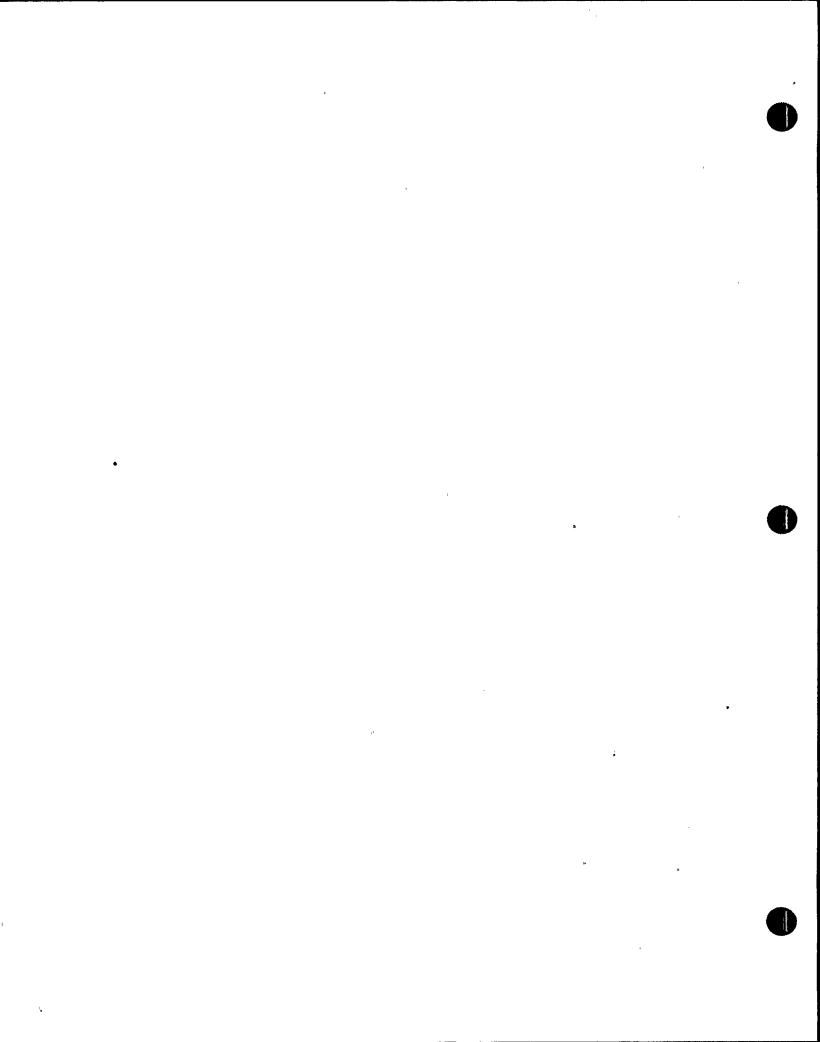
Role Play: As Reactor Engineering f. Operating loop ≤41,800 gpm acknowledge request to reduce thermal limits for single loop operation.

loop manual.

b. Power <70% Sat/Unsat/NA

a. Recirc flow control in

c. Notify reactor analyst Sat/Unsat/NA to reduce thermal limits.



INSTRUCTOR ACTIVITY

ATTACHHENT 2

OPERATOR ACTIONS

EVALUATOR COMMENTS

d. Notify I&C to perform APRM and rod block setpoint changes.

e. Verify/reduce operating

loop to <u>≤</u>41,800 gpm.

Sat/Unsat/NA

Sat/Unsat/NA

Calls OPs Management to inform them of the recirc pump trip.

After immediate actions taken

for recirc pump trip and plant

conditions are stable

Enter Malfunction EHC System Pressure

Regulator A Failure - High

4,TC01A

GP I Isolation and failure to

scram.

CSO/E

Report/respond to alarms.

Sat/Unsat/NA

Large drop in reactor pressure.

MSIV closure.

Rx fails to scram

After MSIV closure, pressure

increases.

CREW

1. Recognize/Report TCV and

Sat/Unsat/NA P.O.#7

BPVs open.

2. Recognize/Report MSIVs

Sat/Unsat/NA

closed

3. Recognize/Report failure of

Sat/Unsat/NA

reactor to scram.

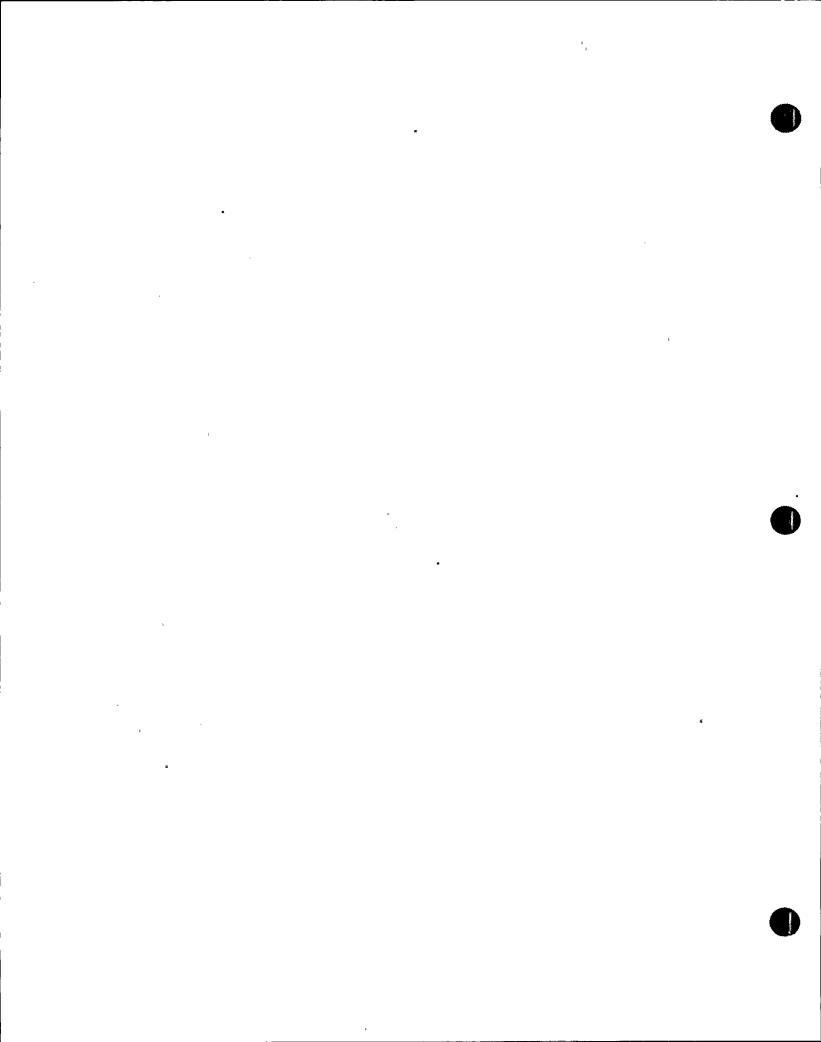
SSS

1. Enter EOP-RPV control:

Sat/Unsat/NA

Exercise sections RL, RP

and RQ concurrently.



EVENT

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INSTRUCTOR ACTIVITY

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

-Sat/Unsat/NA

insert

3. Reports power level

Sat/Unsat/NA

SSS/ASSS

1. Directs pressure control

ISCT #3

using SRVs with a pressure

Sat/Unsat

band below 1037 psig.

2. Directs action of RQ

ISCT #4

Sat/Unsat/NA

a. Manually initiate RRCS

Sat/Unsat/NA

(If required)

b. Direct RR pumps tripped. Sat/Unsat/NA

c. Directs action per EOP-6 Sat/Unsat/NA

Attachment 14 to insert

rods.

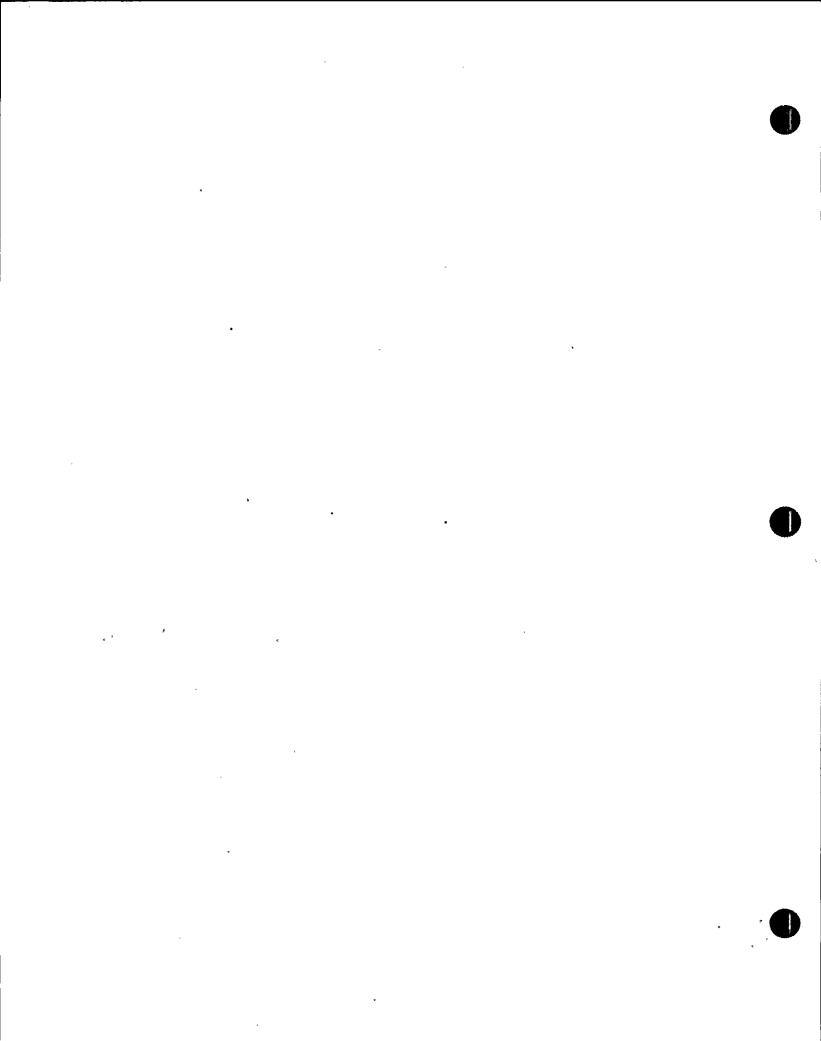
3. Exit RL and enter C5

Sat/Unsat/NA

a. Direct ADS logic inhibit ISCT #5

to on.

Sat/Unsat/NA



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OPERATOR ACTIONS

EVALUATOR. COMMENTS

b. Direct actions per C5 to Sat/Unsat/NA maintain level.

CSO/E

Takes manual control of Sat/Unsat/NA
the SRV's and appropriate
action to maintain RPV
pressure within the
prescribed band.

Manually initiates RRCS (if Sat/Unsat/NA required).

3. Trip recirc pumps.

Sat/Unsat/NA

4. Place ADS inhibit switches

ISCT #6

to on.

Sat/Unsat/NA

 Insert rods in accordance with RQ and EOP-6 Attachment
 14.

Sat/Unsat/NA

6. Takes appropriate action to Sat

Sat/Unsat/NA

ordered.

7. Resets RPS to allow SDV to

maintain RPV level as

ISCT #7

drain.

Sat/Unsat/NA

SSS/ASSS

Enter PC control when SP Sat/Unsat/NA temp. 290°F. Exercise DWT,
 SPL, PCP, PCH, and SPT concurrently.

To bypass RSCS enter MF 5,RW02

To jumper RPS enter MF

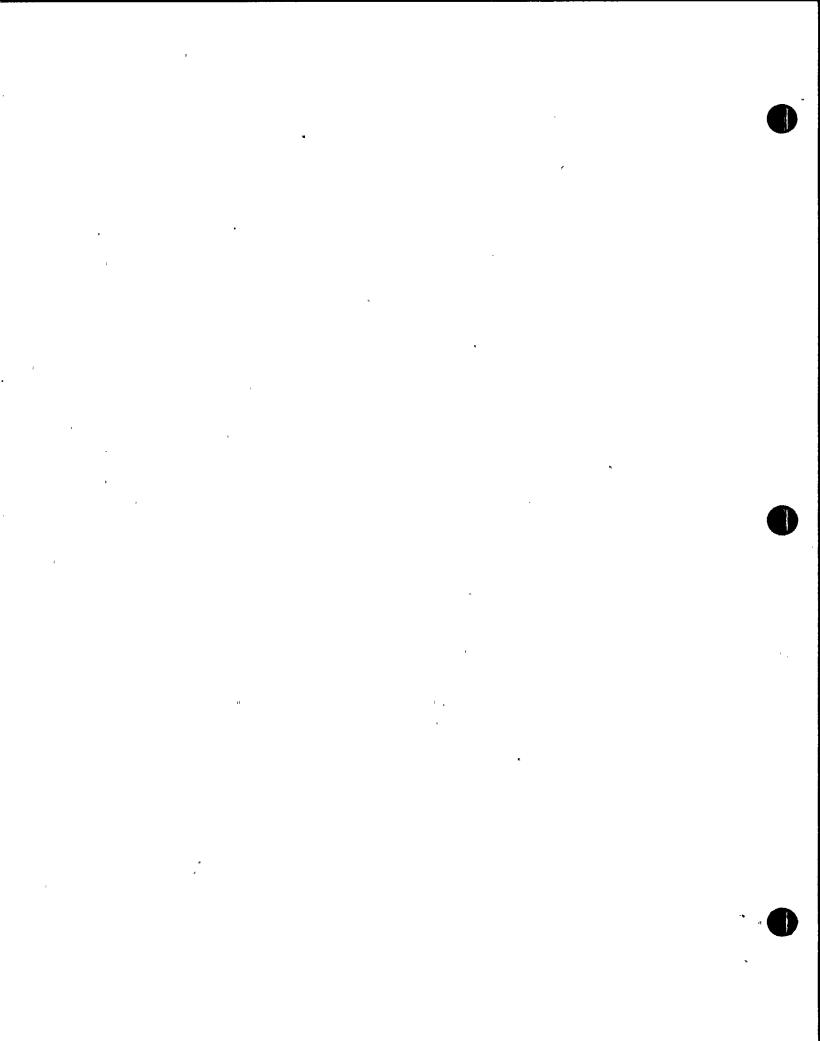
6,RP02

To defeat ARI enter MF

7,RP14

Clear MF 1

When the scram is reset





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EVENY INSTRUCTOR ACTIVITY

ATTACHMENT

OPERATOR ACTIONS

EVALUATOR_COMMENTS

. Y. Z.

2. Order suppression pool

ISCT #8

cooling initiated.

Sat/Unsat/NA

CSO/E

1. Place RHR A(B) in

ISCT #9

suppression pool cooling

Sat/Unsat/NA

per OP-31.

a. Open 2SWP*MOV90A(B)

Sat/Unsat/NA

b. Throttle 2SWP*MOV33A(B)

Sat/Unsat/NA

for approx. 7400

gpm.

c. Start RHR pump 1A(B).

Sat/Unsat/NA

d. Throttle open FV 38A(B)

Sat/Unsat/NA

to establish approx.

7450 gpm.

SP temp is approaching 110°F.

SSS

Order SLC initiation before SPT Sat/Unsat/NA

reaches 110°F.

CSO/E

Initiates SLC manually (if

Sat/Unsat/NA

not initiated).

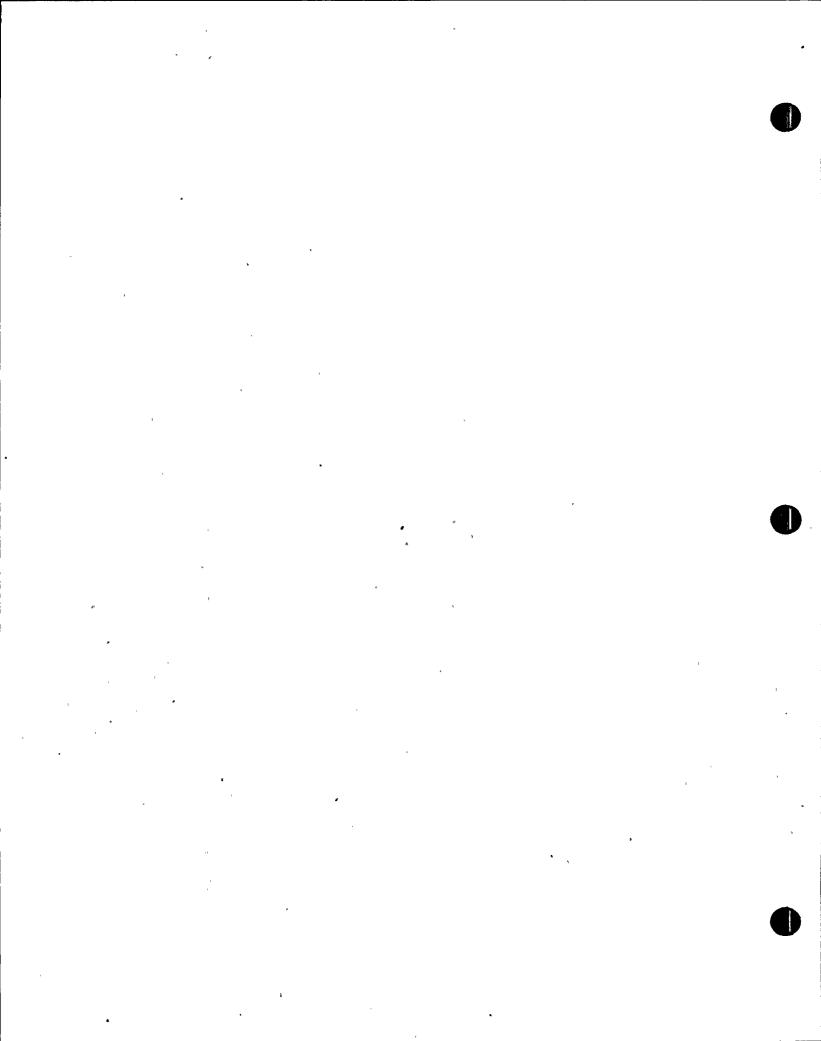
a. Takes (both) SLC pump

Sat/Unsat/NA

keylock switches to

start.

02-REQ-009-10Y-2-02 -17 June 1991



TIME

OPERATOR ACTIONS

EVALUATOR - COMMENTS

b. Verify/reports immediate Sat/Unsat/NA response; Tank outlet valves 1A and 1B open, both pumps start, both squib valve ready lights out (3A and 3B).

c. Monitors/reports para— Sat/Unsat/NA meters.

d. Verify/report RWCU Sat/Unsat/NA isolation.

SSS

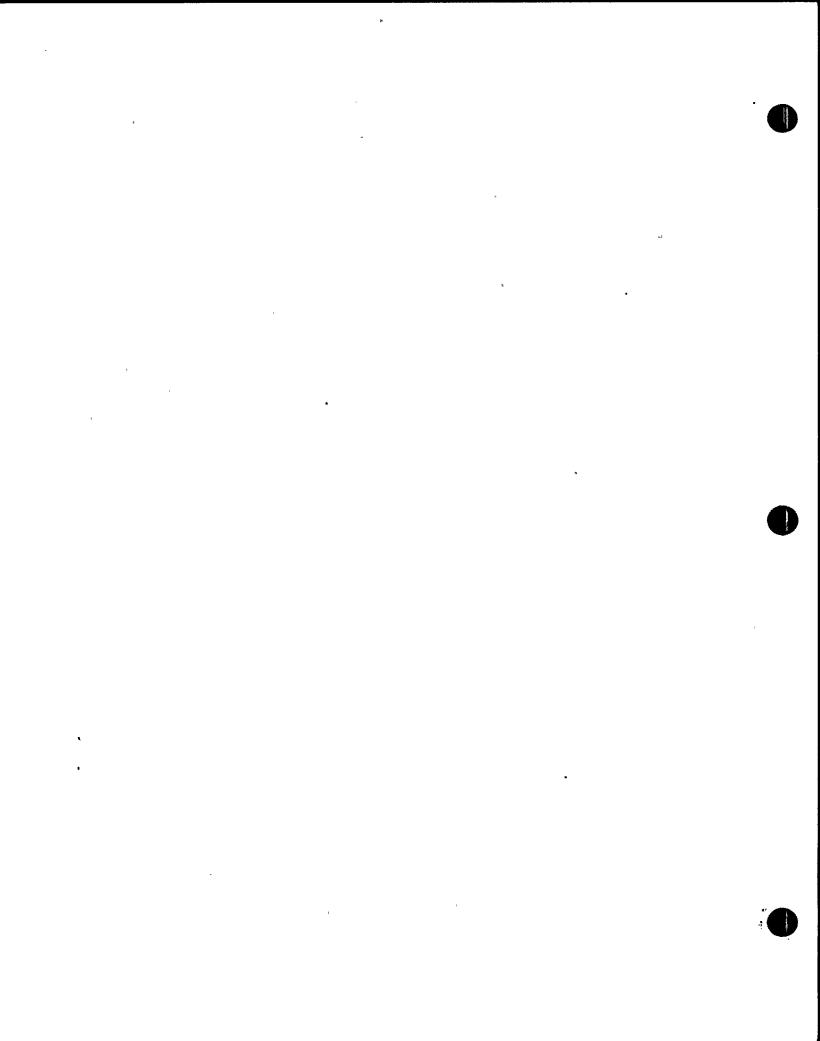
Direct actions per EOP-C5 ISCT #10
 to lower RPV water level to Sat/Unsat/NA
 reduce power.

2. Directs RPV pressure Sat/Unsat/NA maintained below the HCTL as required.

Directs DW cooling restored Sat/Unsat/NA
 Directs H₂/O₂ monitoring Sat/Unsat/NA restored. (or contact
 Chemistry to sample)

CSO/E

 Carry out actions directed Sat/Unsat/NA by SSS.



TIME

OPERATOR ACTIONS	•	EVALUATOR-COMMENTS
2 Tarminate and are	want	

a.	Feedwator	ISCT #11 **
		Sat/Unsat/NA
b.	RCIC	ISCT #12
		Sat/Unsat/NA
c.	HPCS	ISCT #13

ISCT #14 d. RHR/LPCS

•	Sat/Unsat/NA
e. Maintain suppression	ISCT #15
pool cooling.	Sat/Unsat/NA
Restore DW cooling	Sat/Unsat/NA

RPV water level lowers, reactor power lowers.

4. Restores H₂/O₂ Monitoring

Sat/Unsat/NA

Sat/Unsat/NA

1.55

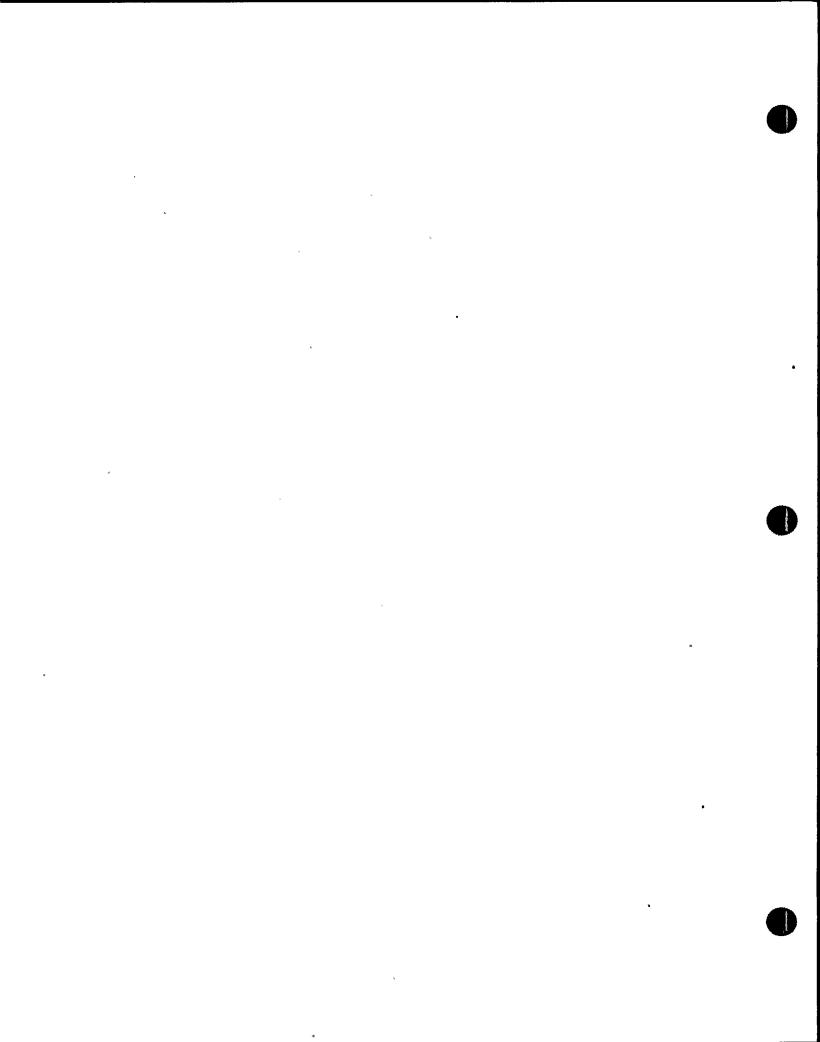
CSO/E	
Reports RPV water level when	Sat/Unsat/NA
power is below 4%.	

SSS

3.

1. Directs water level to be	Sat/Unsat/NA
maintained between -45 and	•
the level at which power	
went below 4%.	

2.	Directs Nitrogen	supply	to	Sat/Unsat/NA
	SRV's restored.		_	



OPERATOR ACTIONS

EVALUATOR COMMENTS

CSO/E

 Takes appropriate actions to Sat/Unsat/NA maintain RPV level within the prescribed band.

When scram discharge volume is drained crew will attempt another scram.

2. Restores Nitrogen supply to Sat/Unsat/NA SRV's

3. Report SDV drained.

Sat/Unsat/NA

4. Insert manual scram after

ISCT #16

SDV level alarms clear.

Sat/Unsat/NA .

CREW

Recognizes/reports rod

Sat/Unsat/NA

movement.

SSS/ASSS

Recognizes/receives report

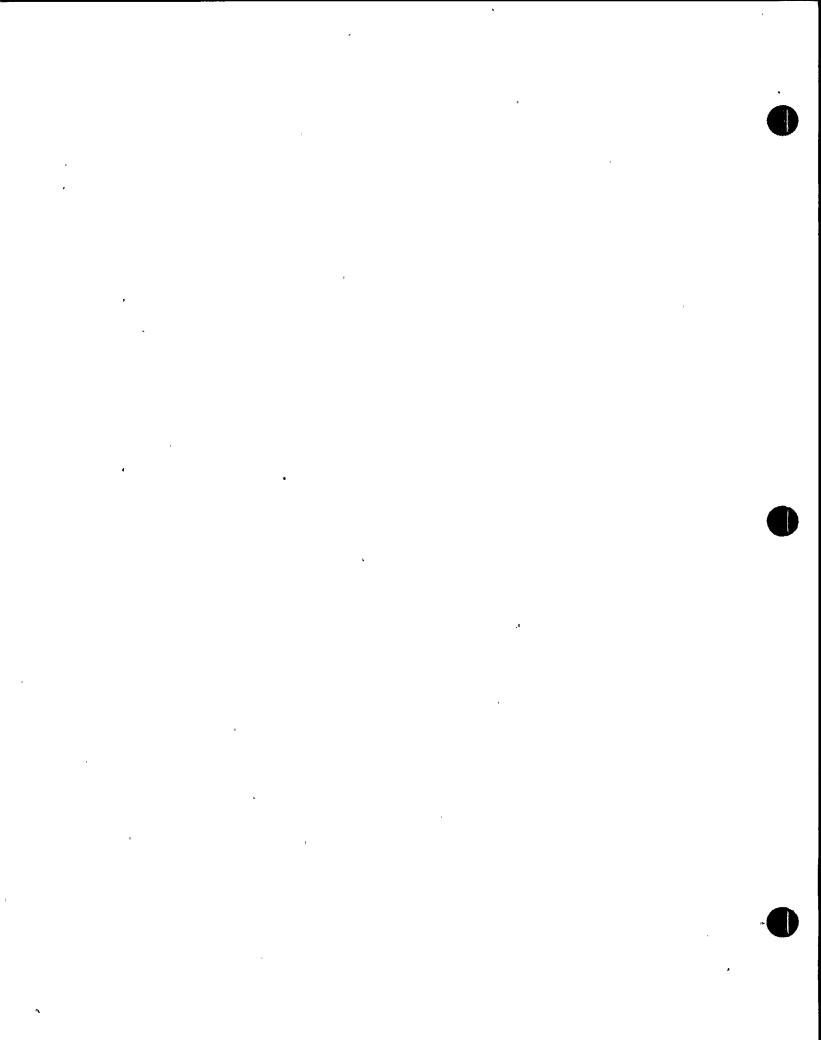
that rods are inserting and
has crew concentrate on
restoring level and control—
ling pressure.

Sat/Unsat/NA

SSS/ASSS

ISCT #17

Classifies event as Site Sat/Unsat/NA
 Area Emergency (SLC
 initiated) due to
 failure to complete a
 scram.



INSTRUCTOR ACTIVITY

ATTACHHENT PLANT RESPONSE

OPERATOR ACTIONS

EVALUATOR COMMENTS

2. Makes/directs notifications

ISCT #18

to be made Sat/Unsat/NA

TERMINATION CUES:

When RFV 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

Directs water level Sat/Unsat/NA restored to 159.3 - 202.3 using feedwater.

 Cautions operator not to Sat/Unsat/NA exceed cooldown rate by excessive feed addition.

CSO/E

Slowly restore water level Sat/Unsat/NA using feedwater.

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INSTRUCTOR ACTIVITY

PLANT RESPONSE

OPERATOR ACTIONS

EVALUATOR COMMENTS

100

SSS/ASSS

1. Directs pressure controlled Sat/Unsat/NA using SRV's not to exceed 100°/Hr cooldown rate

CSO/E

Sat/Unsat/NA 1. Maintains pressure/cooldown as directed.

SSS/ASSS

1. Direct SLC secured Sat/Unsat/NA

CSO/E

Sat/Unsat/NA 1. Secures SLC Sat/Unsat/NA 2. Insert SRM's/IRM's and range down

When DW pressure <1.68 psig and

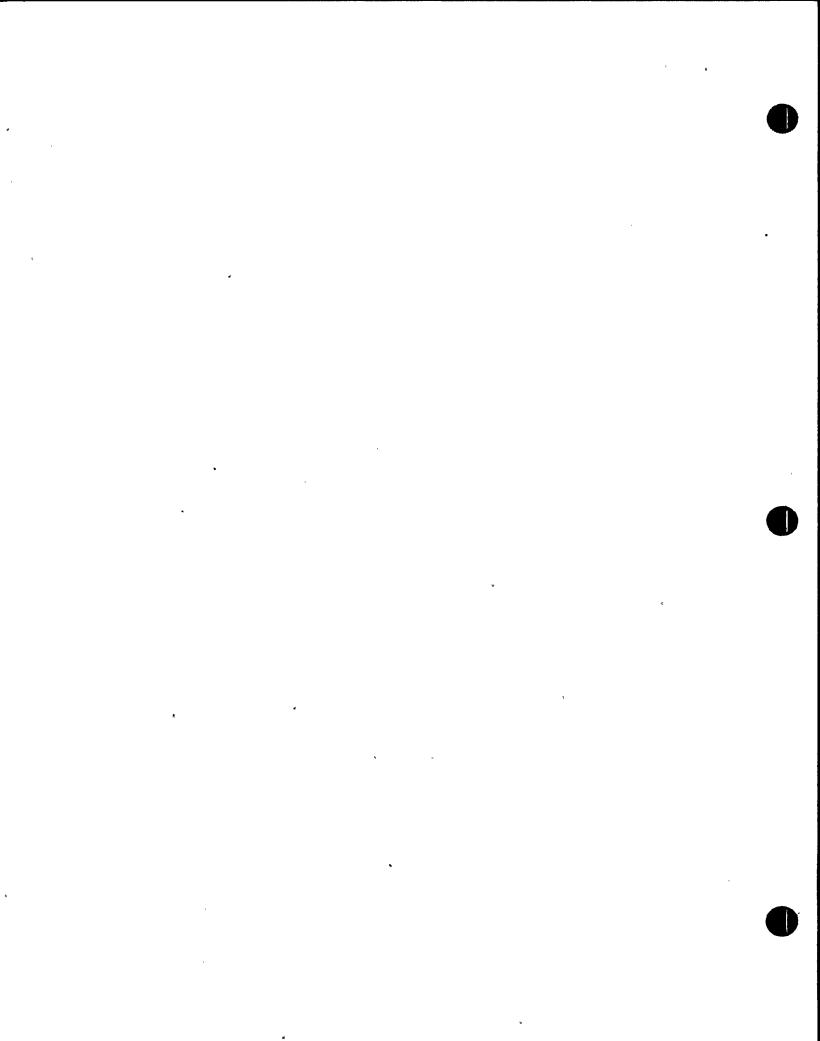
RPV level is above level 1

SSS/ASSS

Sat/Unsat/NA 1. Direct Div I/II ECCS initiations reset. Sat/Unsat/NA

2. Direct RCIC turbine reset.

Sat/Unsat/NA 3. Direct RCIC initiated.



TIME EVENT

INSTRUCTOR ACTIVITY

ATTACHMENT :

CSO/E

OPERATOR ACTIONS

RCIC/FW.

 ${\bf EVALUATOR_COMMENTS}$

1. Resets Div I/II ECCS Sat/Unsat/NA

initiations.

2. Resets RCIC turbine. Sat/Unsat/NA

3. Initiates RCIC Sat/Unsat/NA

4. Restores/maintains RPV Sat/Unsat/NA

level as ordered using

5. Maintains pressure/cooldown Sa

Sat/Unsat/NA

using SRV's and RCIC.

RPV level above level 3.

SSS

1. Directs scram reset Sat/Unsat/NA

2. Directs crew to lineup Sat/Unsat/NA

steam condensing

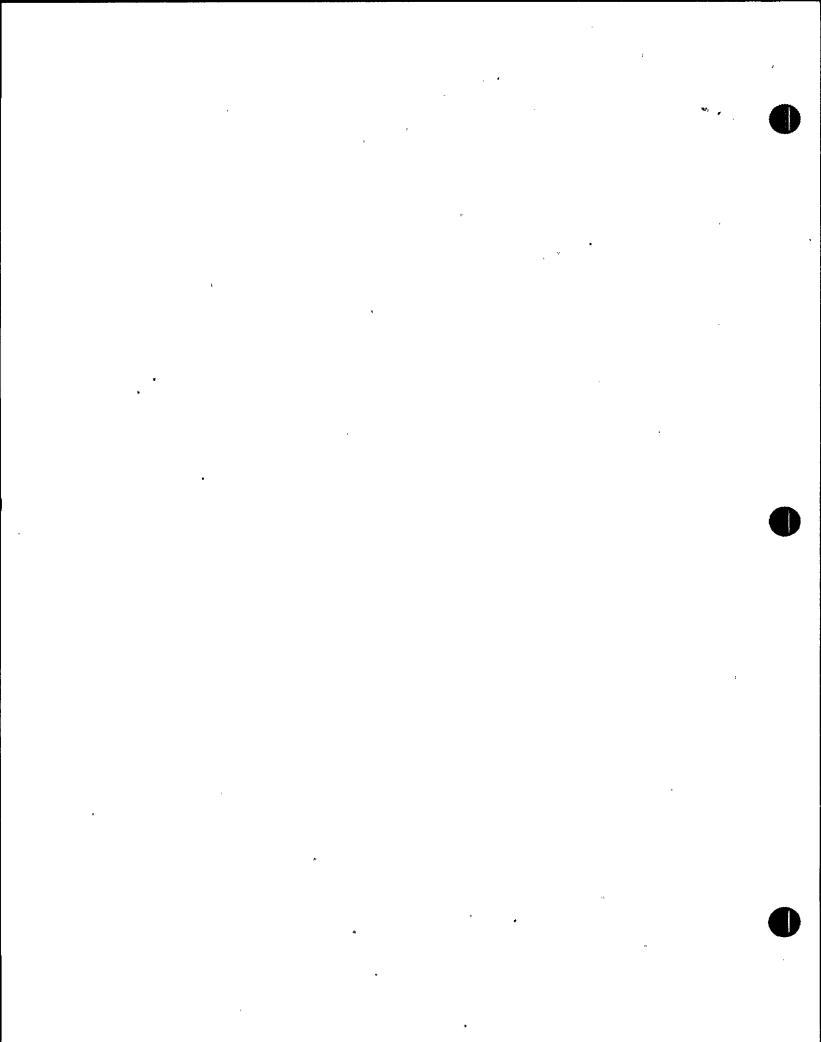
CSO/E

1. Resets scram Sat/Unsat/NA

2. Performs lineups for steam Sat/Unsat/NA condensing IAW OP-31.

Termination Cue:

Scenario may be concluded at the lead evaluators discretion.

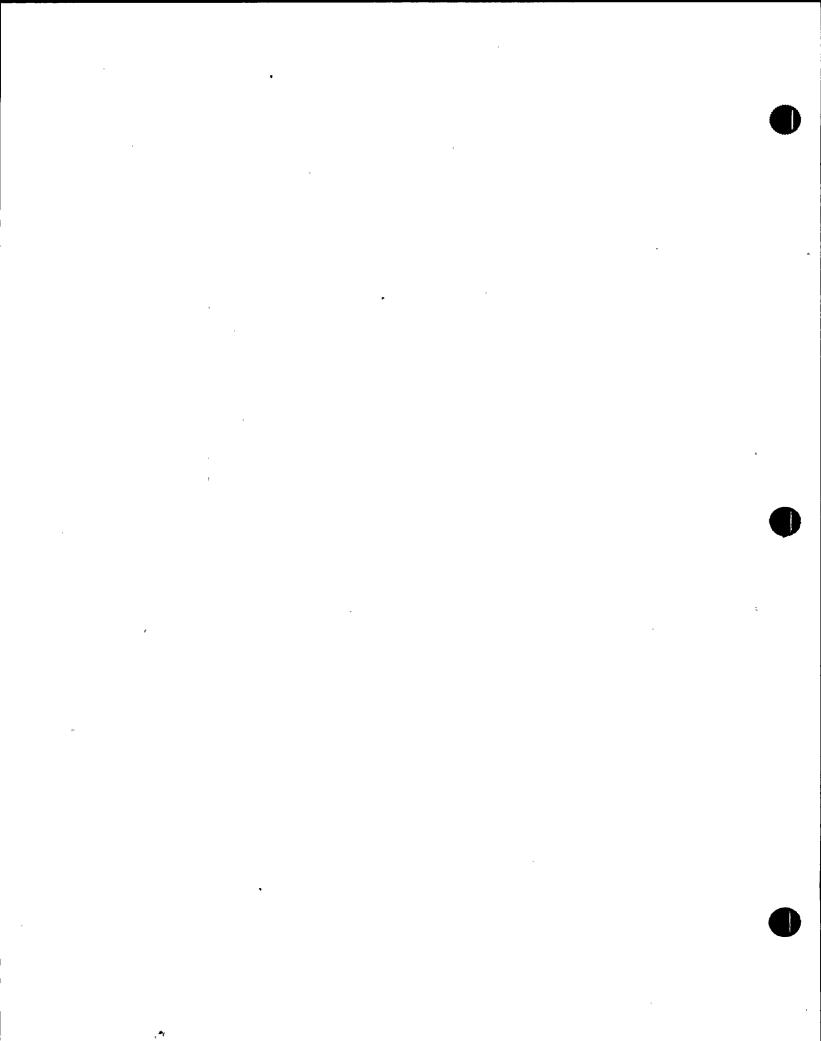


POST EVALUATION ASSESSMENT

NOTES AND LESSON CONTENT DELIVERY NOTES 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.
- 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:
 - 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:
 - Review the learning objectives. ...
 Have the crew state how each was met during the session.

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b. Participants Self-Evaluation

Discussion should focus on measurable behaviors and how these contributed to or detract from meeting the objectives.

c. Instructors assessment and performance(NCTS-2) recommendations.

- 7. Session and program feedback.
- 8. Document session

Allow participants to evaluate themselves against the learning objectives and tasks for the session.

Discussion should center on performances and not personal feelings or interpretations of actions.

- 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.
- Provide feedback on ways to improve performance as appropriate.
- Distribute Simulator Training Evaluation Feedback Form, NTI-4.4 Attachment 13.
- Provide students with time to complete form.
- Complete Post Evaluation Summary, Attachment 4.
- 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)

