

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION

UNIT II OPERATIONS

07-190-91

02-REQ-009-TRA-2-27 Revision 0

TITLE: SIMULATOR TRAINING SESSION #27 PLANT STARTUP FROM LOW
IN THE IRM'S TO HEATUP

	<u>SIGNATURE</u>	<u>DATE</u>
PREPARER	<u>David W. Petta</u>	<u>3-8-91</u>
VALIDATED	<u>David W. Petta</u>	<u>3-8-91</u>
PROGRAM SUPERVISOR	<u>[Signature]</u>	<u>3/8/91</u>
UNIT OPERATIONS TRAINING SUPERVISOR	<u>[Signature]</u>	<u>3/11/91</u>
PLANT SUPERVISOR/ USER GROUP SUPERVISOR	<u>[Signature]</u>	<u>3-8-91</u>

Summary of Pages

Effective Date: 3/11/91
Number of Pages: 25
Date: March 1991 Pages: 1-25
MASTER CONTROLLED DOCUMENT

DOCUMENT
TRAINING DEPARTMENT RECORDS ADMINISTRATION ONLY:

VERIFICATION: _____
DATA ENTRY: _____
RECORDS: _____

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12/20/2007 10:00 AM

ATTACHMENT 5
LESSON PLAN TEMPORARY/PUBLICATION/ADDENDUM CHANGE FORM

The attached change was made to:

Lesson plan title: Simulator Training Session #27

Lesson plan number: 02-REQ-009-TRA-2-27

Name of instructor initiating change: David Pettit

Reason for the change: Add SOER 84-4 to the reference section
as requested by TRR 600801-15

Type of change:

- 1. Temporary change
- 2. Publication change
- 3. Addendum change

Disposition:

- 1. Incorporate this change during the next scheduled revision.
- 2. Begin revising the lesson plan immediately. Supervisor initiate the process.
- 3. To be used one time only.

Approvals:

Instructor: David W. Pettit /Date 8-12-91

Supervisor Operations Training (or designee): E. J. Reid /Date 8/12/91



SIMULATOR LESSON PLAN TEMPORARY/PUBLICATION CHANGE FORM

The attached change was made to:

1. Lesson plan title: Simulator Training Session #27 Plant Startup From Low in the IRMs to Hot Start
2. Lesson plan number: 02-REF-009-TRA-2-27 Rev. 0
3. Name of instructor initiating change: David W. Pettit
4. Reason for the change: Simulator Changes with addition of new Rod Worth Minimizer and some additions for ease of instructor preparation.

5. Type of change: Temporary change Publication change

6. Disposition:

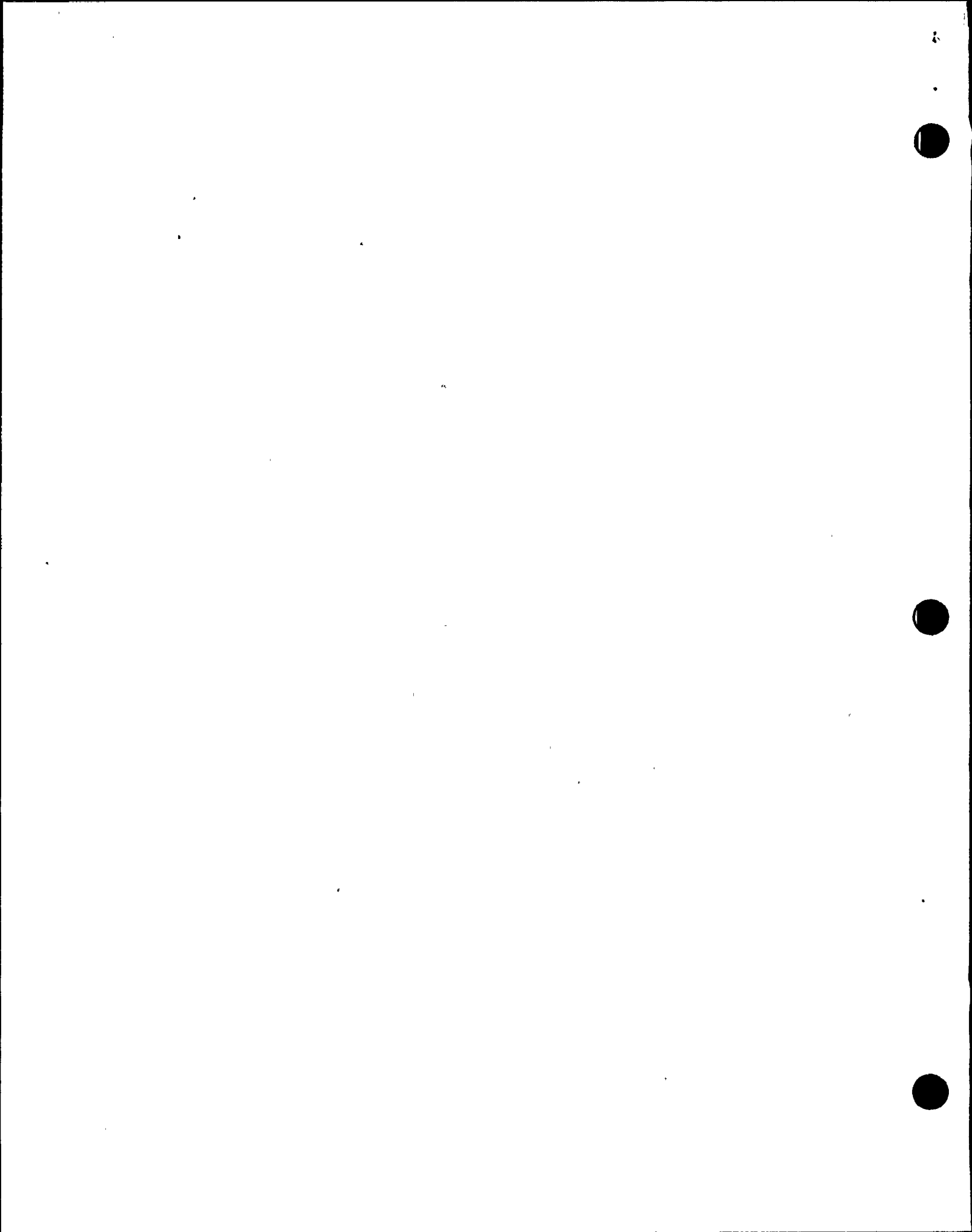
1. Incorporate this change during the next scheduled revision. The change does not alter the intent of the lesson plan.
2. Begin revising the lesson plan immediately. Supervisor initiate the process.

7. Approvals:

Instructor: David W. Pettit /Date 4-1-91

Senior Instructor: Eric S. Kelly /Date 4/1/91

Supervisor: [Signature] /Date 4/1/91



A. TRAINING DESCRIPTION

1. Title of Lesson: Simulator Training Session #27 Plant Startup from the Intermediate Range to Establishing a Heatup Rate
2. Estimated Duration of Lesson: 4 hours
3. Prerequisites:
 1. Instructor:
 - a. Qualified as a simulator instructor per NTP-16.1.
 2. Trainee:
 - a. Meet the eligibility requirements per 10CFR55 or,
 - b. Be recommended for this training by the Operations Superintendent, his designee, or the Training Superintendent.
4. References:
 - a. N2-OP-1, Main Steam System
 - b. N2-OP-3, Condensate and Feedwater System
 - c. N2-OP-13, Reactor Building Closed Loop Cooling
 - d. N2-OP-21, Main Turbine
 - e. N2-OP-23, Main Turbine Electrohydraulic Control
 - f. N2-OP-29, Reactor Recirculation System
 - g. N2-OP-30, Control Rod Drive
 - h. N2-OP-37, Reactor Water Cleanup System
 - i. N2-OP-60, Drywell Cooling
 - j. N2-OP-73B, 24 Volt D.C. Distribution
 - k. N2-OP-92, Neutron Monitoring
 - l. N2-OP-95A, Rod Worth Minimizer (RWM)
 - m. N2-OP-95B, Rod Sequence Control System (RSCS)
 - n. N2-OP-96, Reactor Manual Control and RPIS
 - o. N2-OP-97, Reactor Protection System
 - p. N2-OP-101A, Plant Startup
 - q. N2-OP-101C, Plant Shutdown
 - r. SOER 88-02
 - s. NMP2, Technical Specifications (T/S)
 - t. *SOER 84-4*

* TRR 60881-15 *



5. Manipulation Performed:

- a. O2-REQ-MAN-A01-2-00, Plant Startup/Establish Heatup rate (SSS, ASSS, CSO, E)
- b. O2-REQ-MAN-A03-2-00, Manual Control of Feedwater during Startup (SSS, ASSS, CSO, E)
- c. O2-REQ-MAN-B03-2-00 Loss of RBCLC (Reactor Building Closed Loop Cooling)(SSS, ASSS, CSO, E)
- d. O2-REQ-MAN-B11-2-00 Unexplained Reactivity Change (SSS, ASSS, CSO, E)
- e. O2-REQ-MAN-B05-2-00 Loss of Protective System Channel
- f. O2-REQ-MAN-B06-2-00 Mispositioned Control Rod or Rods

B. REQUIREMENTS

1. Requirements for Class:

- a. AP-9.0, Administration of Training
- b. NTP-10, Training of Licensed Operator Candidates
- c. NTP-11, Licensed Operator Requalification Training
- d. NTP-12, Unlicensed Operator Training

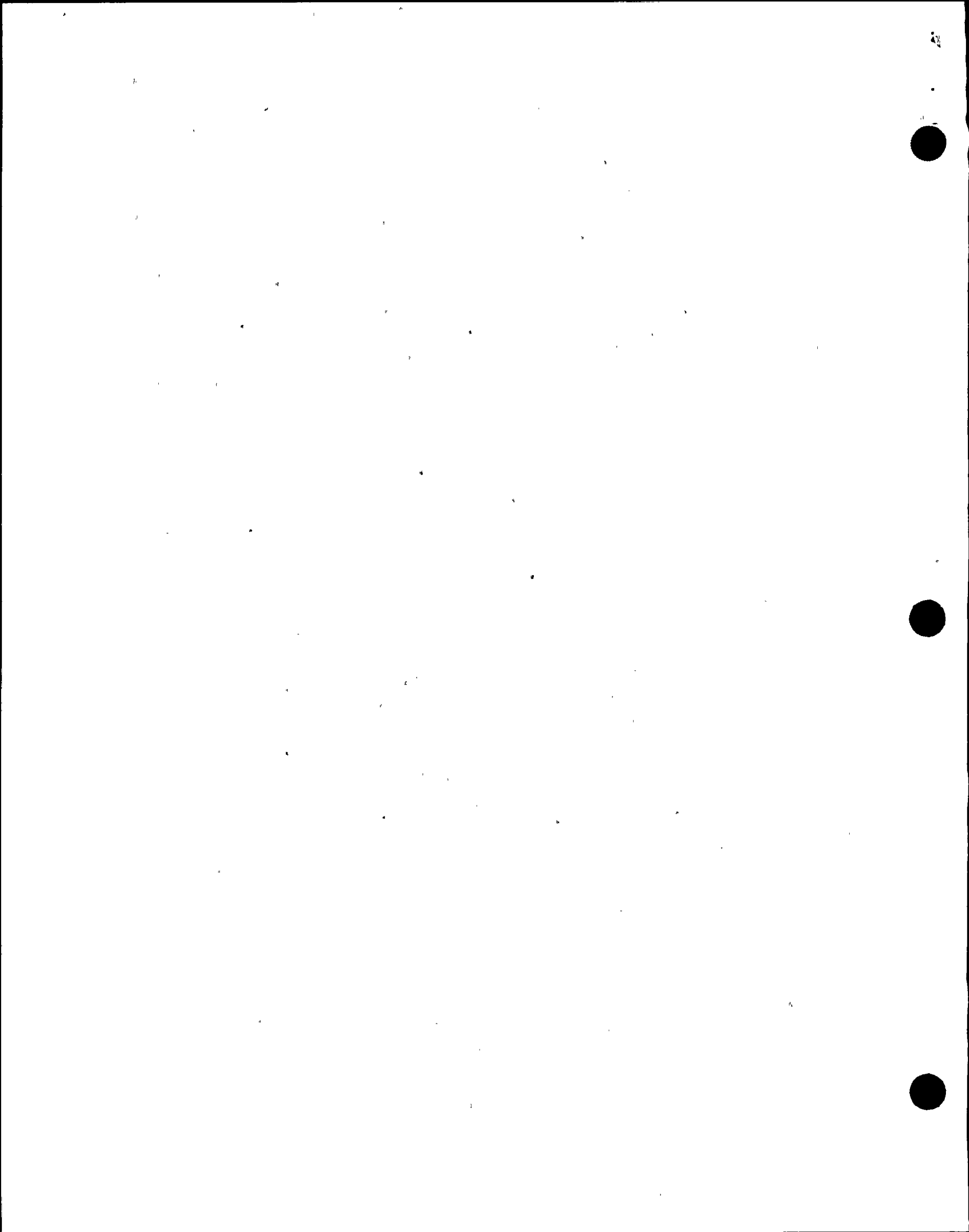
C. PRE-EXERCISE BRIEF

1. Conduct the pre-exercise brief (as necessary) using Attachment One of NTI-4.3.1 as a reference.

D. SIMULATOR SET-UP

1. Initialize to IC-2
2. Change the simulator conditions as follows:
 - a. Start SWP*PIE then markup out of service 2SWP*PIA and pump discharge valve (MOV74A) (service water Pump A is out of service to repair strainer 4A).
 - b. Place the pull sheet book on the cart, open and mark to rod 46-11 the last rod pulled to position 08. (page 12)
3. Preset Malfunctions:
None
4. Preset I/O: *-C*
1,1-2SWPA24~~0~~, OFF Turns off power (Green Light) to SWP*MOV74A for markup.
5. *Paper work setup:*
 - a. Copy of N2-OSP-RCS@001 with prerequisites complete and first set of readings on Att. 7
O2-REQ-009-TRA-2-27 -2 March 1991
 - b. Copy of N2-OSP-NMS Su001 complete up through 8.1.2
 - c. Copy of N2-OP-101A initial up through step 2.11 except the following steps:
1.15, 1.16.2, 1.16.3, 1.25, 2.1.3-2.1.5, 2.3, 2.4

UNIT 2 OPS/2358

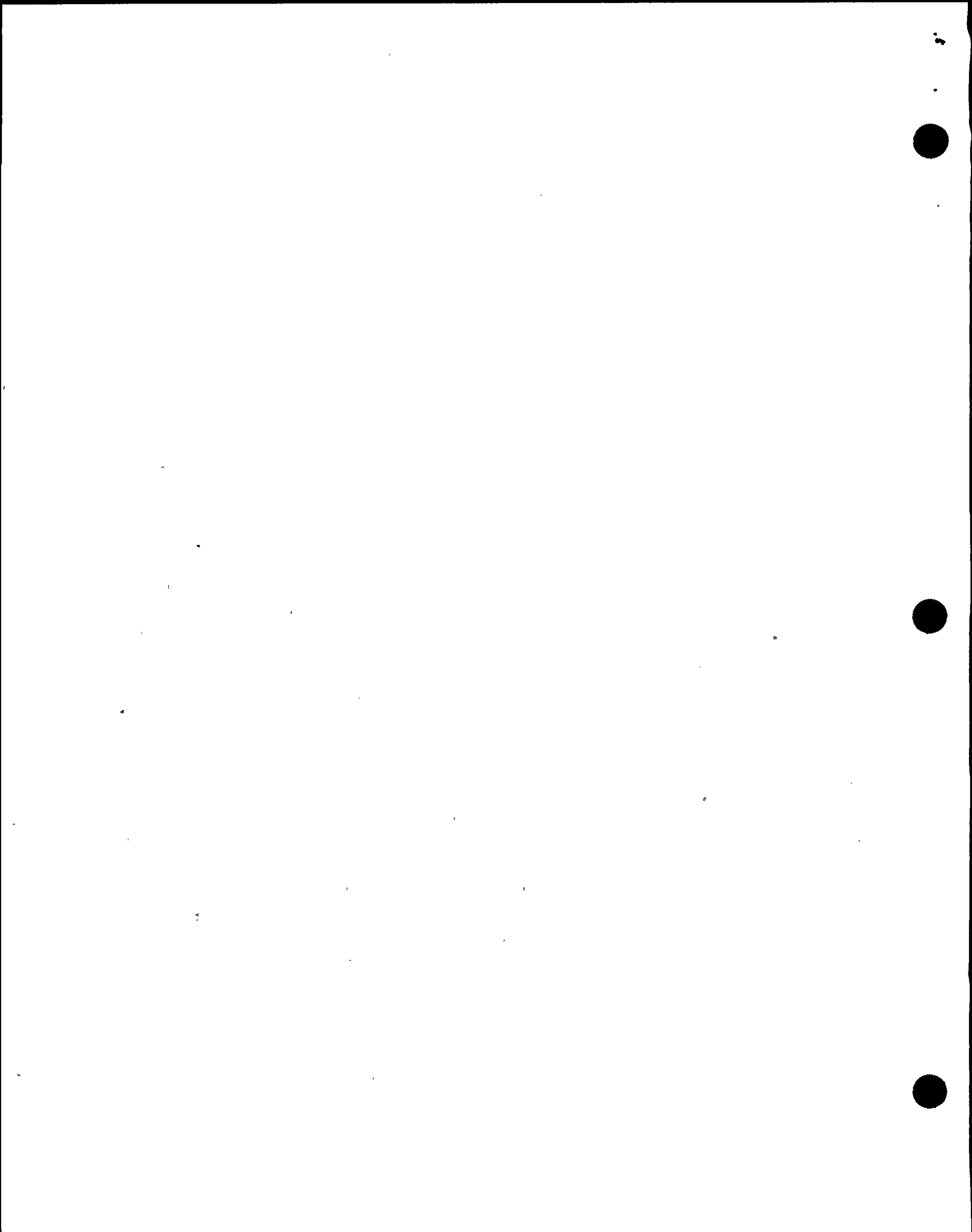


E. POSITION ASSIGNMENTS (To be rotated to allow each person required manipulations.)

1. SSS _____
2. ASSS _____
3. CSO _____
4. NAOE _____
5. NAOE _____
6. SPEC _____

F. SCENARIO SUMMARY

The plant was scrammed last night due to fluctuations in the EHC system pressure regulator. I&C has replaced the pressure transmitter and expects no problems with the new transmitter. Plant startup is in progress in accordance with N2-OP-101A. The crew will continue startup to attain criticality and establish plant heatup. The team will respond to problems in the following systems/areas. Neutron monitoring, feedwater system, reactor building, closed loop cooling, control rod/reactivity anomalies, control rod drive hydraulics, primary containment isolation system, and electrical distribution. Acting as a team they shall use the procedures and annunciator responses including reviewing all sections (precautions, prerequisites individual steps etc.) and utilize all system/panel indications. In order to complete required annual manipulations this training session involves a series of miniature scenarios involving startup to the point of plant heatup.



G. LEARNING OBJECTIVES

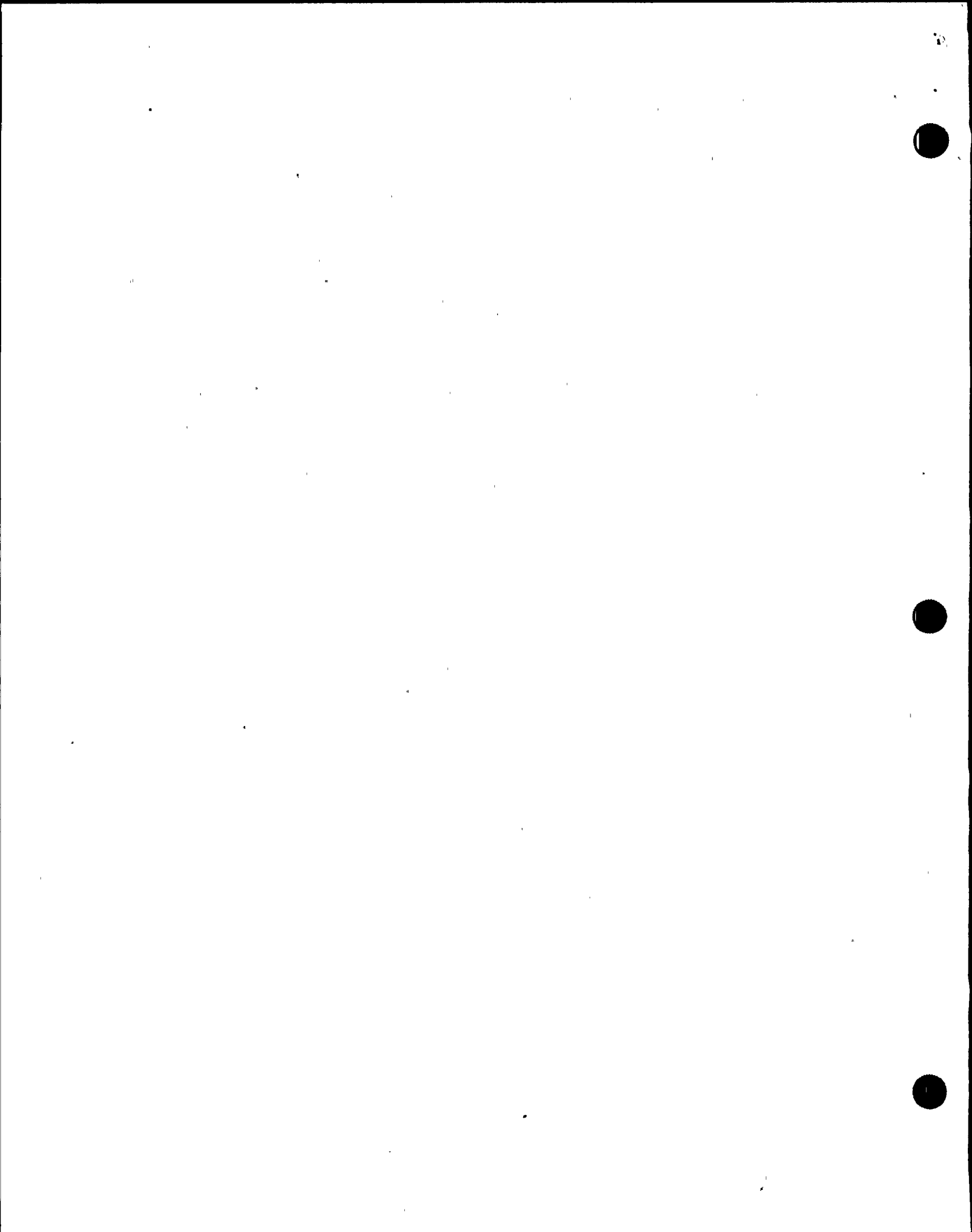
Upon completion of this training, the trainee will have gained the knowledge to:

1. Generic Objectives:

- GO-1.0 Demonstrate effective communications in accordance with the Operations Department Instruction on verbal communications.
- GO-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.
- GO-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.
- GO-4.0 Operators shall demonstrate "Self Verification" work practice techniques in accordance with Operations Department instructions.

2. Scenario Objectives:

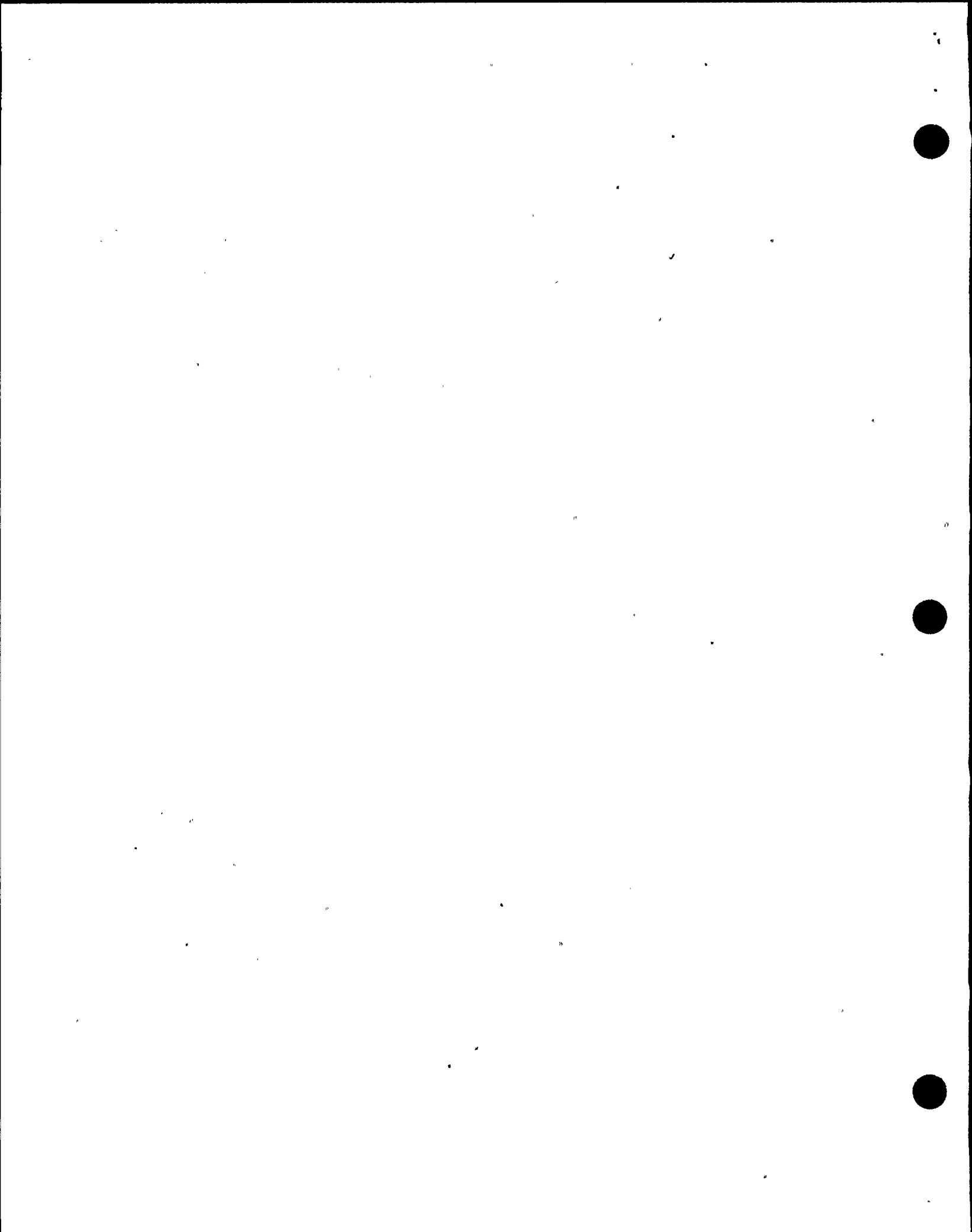
- TO-1.0 Given the plant with startup in progress, continue with startup to criticality establishing a stable period greater than 60 seconds, and to the point of establishing a heatup of less than 25°F in any one hour.
 - SSS/ASSS will direct a reactor startup to the point of adding heat. (3419040103)
 - SSS/ASSS will direct manual control of feedwater during a reactor startup. (3419130103)
 - Reactor operators will perform an approach to criticality, and plant heatup. (2010080101)
 - Reactor operators will operate the nuclear instrumentation system during a reactor startup. (2150190101)



- TO-2.0 Given the plant with startup in progress and a stable positive period established an unexplained change occurs which adds positive reactivity, take conservative actions to correct as described in N2-OP-101A precautions. These conservative actions should be to operate IRM's as required, add negative reactivity to re-establish greater than +60 second period or to scram the reactor.
- SSS/ASSS will direct shift personnel actions to correct causes of abnormal events. (3440080303)
 - Reactor operators to perform actions required for an unexplained core reactivity change. (2009140501)
 - Reactor operators will operate the nuclear instrumentation system during reactor startup. (2150190101)

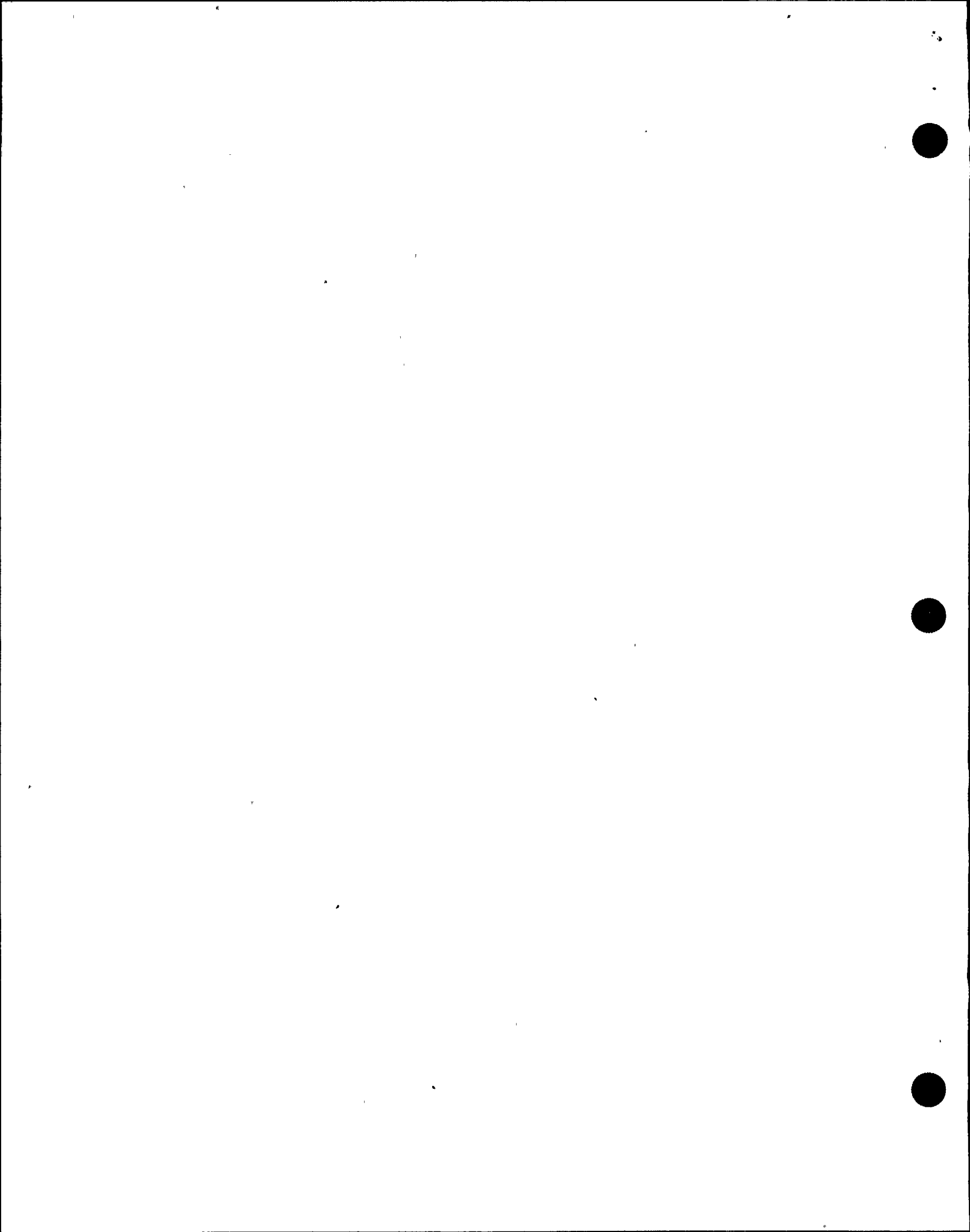
- TO-3.0 Given the plant with startup in progress and a loss of CCP (Reactor Building Closed Loop Cooling) due to a group 8 and 9 isolation, when it is determined that this is due to an inadvertent isolation, restore drywell cooling and monitor recirculation pump temperature.
- SSS/ASSS direct actions required for a loss of CCP as stated in N2-OP-13. (3449200503)
 - SSS/ASSS direct actions in response to a loss of cooling to the recirculation pumps. (3449680403)
 - Reactor operators to respond to a CCP system failure. (2000110501)
 - Reactor operators to perform the required actions for a loss of cooling waste to the recirculation pumps. (2029280401)

- TO-4.0 Given the plant with startup in progress and a total loss of CCP occurs, after attempting to start a CCP pump scram the reactor per N2-OP-13 prior to an automatic scram (or random rod scram) related to the loss of CCP.
- SSS/ASSS direct actions required for a loss of CCP as stated in N2-OP-13. (3449200503)
 - Reactor operators to respond to a CCP system failure. (2000110501)



H. LESSONS LEARNED

1. Review the actions for a short period annunciator. This was a noted NRC weakness (TCO-R2-90-071).
2. Review precautions in N2-OP-101A in respect to control of reactivity during startup (SOER 88-2 training recommendation #5) if not done in classroom.
3. Review required actions (N2-OP-13 Section H) on a loss of Reactor Building Closed Loop Cooling System. This was a noted NRC weakness during the 1989 NRC Requal Exam (TCO-02-REQ-90-065).
4. Review ODI 5.18 (Reactivity Management Program) or have SSS review with his crew during turnover.



I. TURNOVER INFORMATION

1. Give the following information for initial conditions:

Core Life: BOL (Beginning of Life)

Description: Scrammed last night due to fluctuations in EHC system pressure regulator. I&C has replaced the transmitter.

Rod Sequence Information:

RSCS Group #3

46-11 was the last rod pulled

RWM Group #4 Step #7

Plant Conditions: *Page 12 of the Startup Control Rod Sequence (42 up)*

Startup in progress in accordance with N2-OP-101A *step 2.12.*

2. Tech. Spec. limitations in effect:

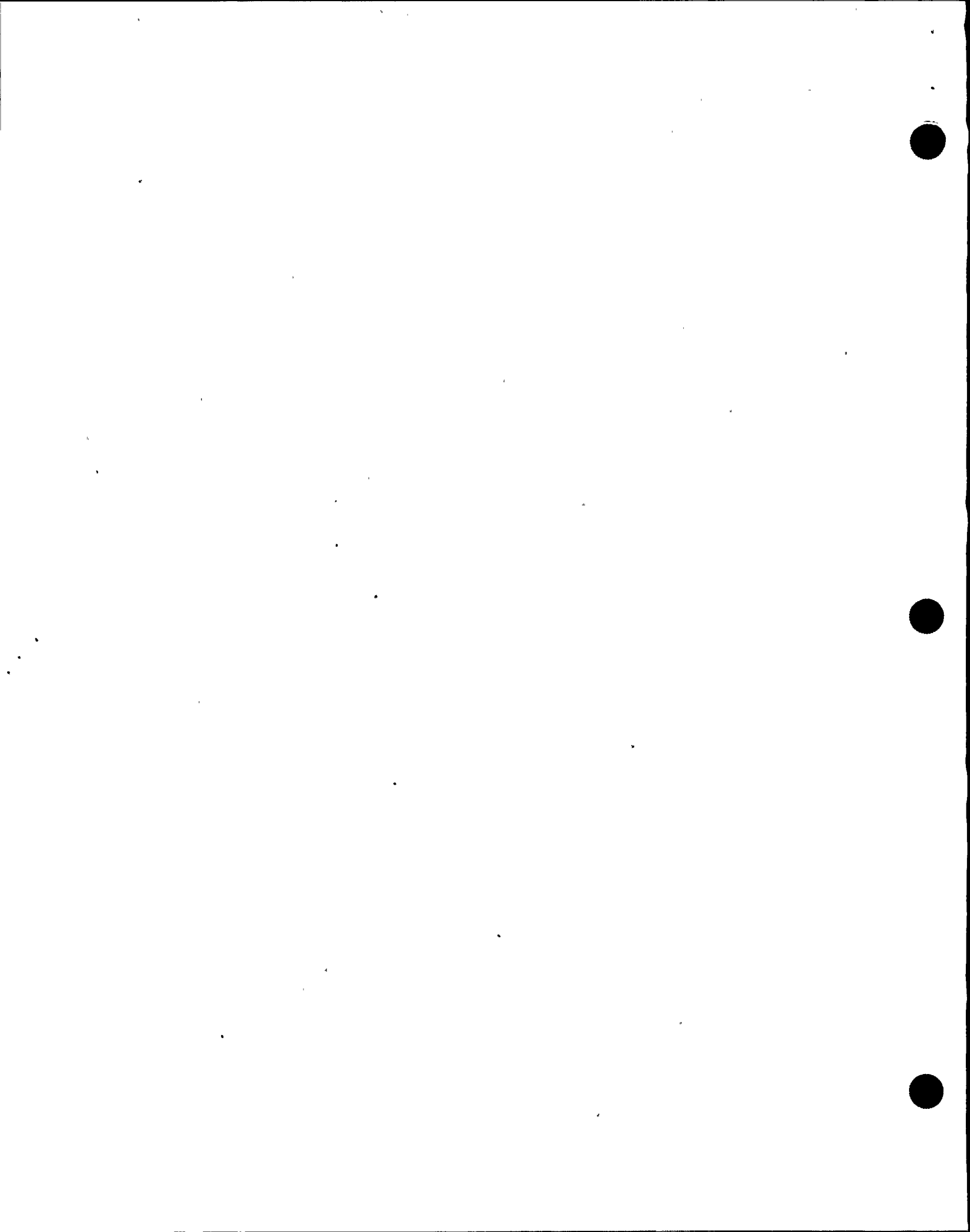
None

3. Significant problems/abnormalities:

None

4. Evolutions/maintenance for the on-coming shift:

a. 2SWP*PIA is out of service for maintenance on the 4A strainer.



INSTRUCTOR INFORMATION/
INSTRUCTOR ACTIVITY

EXPECTED STUDENT RESPONSE

C/L

COMMENTS

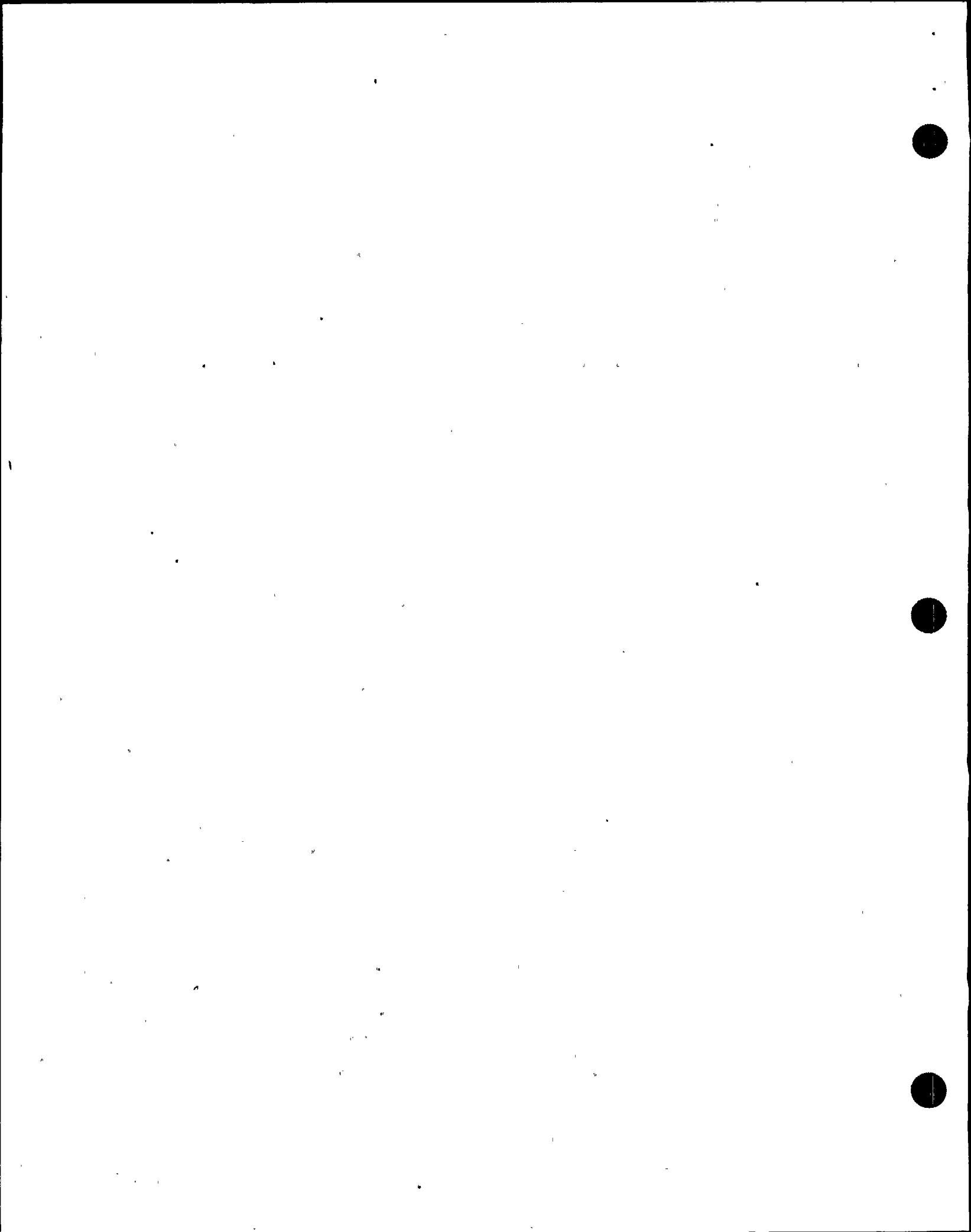
Crew takes the shift and continues with plant startup.

Crew

Continue pulling rods for
criticality feedwater
control

in manual, cleanup rejecting
to the condenser.

Required Manipu-
lations A.01 &
A.03.



INSTRUCTOR INFORMATION/
INSTRUCTOR ACTIVITY

EXPECTED STUDENT RESPONSE

C/L

COMMENTS

When Reactor Operator establishes a stable positive period with power increasing and no rod motion;

Required Manipulation B.11.

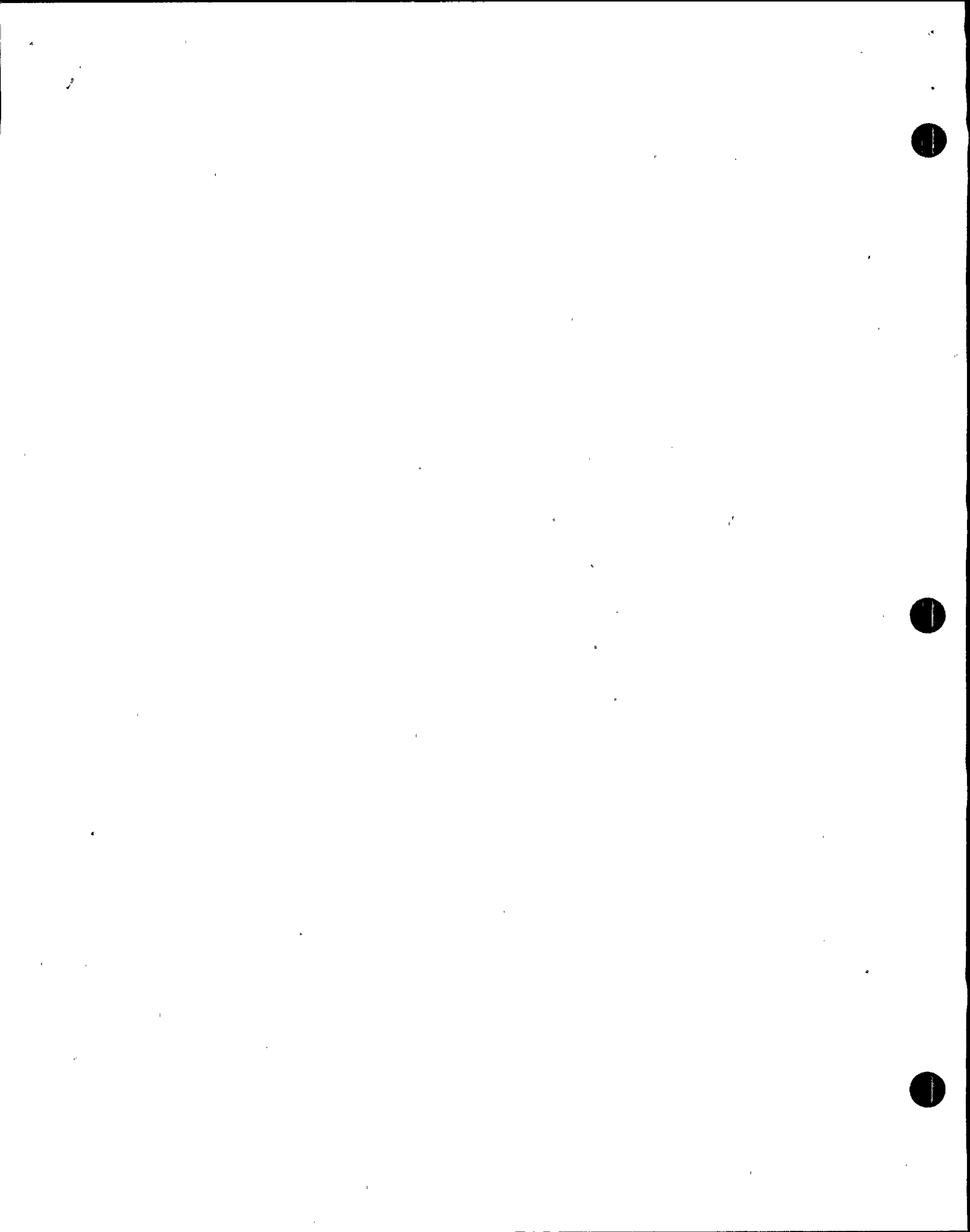
Enter Malfunction,
6,RX03,52
Unexplained reactivity change

Crew should notice short period annunciator and rapidly increasing power on the IRM's. Actions required are to range up on IRM's and possibly drive in the last rod withdrawn (or, mode switch to shutdown).

SSS/ASSS

When plant is stabilized, discuss what could have caused this condition, then continue with heatup as desired by Ops. Management.

Instructor will have to possibly participate in crew discussion of "Expect the Unexpected". Then encourage startup to continue to meet time constraints of getting 4 startup's completed. Note: If the crews action is to place mode switch in shutdown, this is a conservative action. Freeze the simulator and backtrack to prior to RX03 and discuss then continue with startup.



Enter Malfunction,

3,NM05B

SRM 'B' detector will not retract

~~(This malfunction may not be noticed until
after the next malfunction is completed.)~~

CSO/E

Recognize the failure of SRM
'B' detector to withdraw and
report this to the SSS.

Required Manipu-
lation B.05.

ASSS/SSS

1. Acknowledge failure of
SRM 'B'.
2. Consults with T/S.
3. Directs actions to allow
plant startup to
continue. (*bypass SRM 'B'*).



INSTRUCTOR INFORMATION/
INSTRUCTOR ACTIVITY

EXPECTED STUDENT RESPONSE

C/L

COMMENTS

After heatup rate is established:

Enter Malfunction,

4,RD09XXYY (last rod to be pulled)

Single rod scram

CSO/E

Identify single rod scram.

ASSS/SSS

Direct actions for single
rod scram.

Required Manipu-
lation, B.06.
(TCO-R2-90-121
"Incorporate
activities at low
power to familiarize
operators with core
response".)

After actions/discussion of single rod scram
are complete, place simulator in freeze.

Discuss activities with crew review references
not looked at by all operators, direct crew
questions to the ASSS/SSS if possible.

Group discussion of
strengths and weaknesses.

Give crew a 5 minute break and tell them when
they return we will be starting up the reactor
again.

Setup Instructions:

Reset the simulator to IC-2

Markup out of service 2CCP-PIC

Note: Simulator operator needs copy of pull
sequence to be able to stick a rod after heatup
is established.



Turnover Information

Give the following information for initial conditions:

Core Life: BOL

Rod Sequence Information:

RSCS: Group #3

46-11 was the last rod pulled

RWM: ~~Group #4- Step 7~~

Plant Conditions: *Page 12 of the Startup Control Rod Sequence (A2UP)*

Reactor power: Startup is in progress in accordance with N2-OP-101A following a 6 week "mini-outage".

Tech. Spec. limitations in effect:

None

Significant problems/abnormalities:

None

Evolutions/maintenance for the on-coming shift:

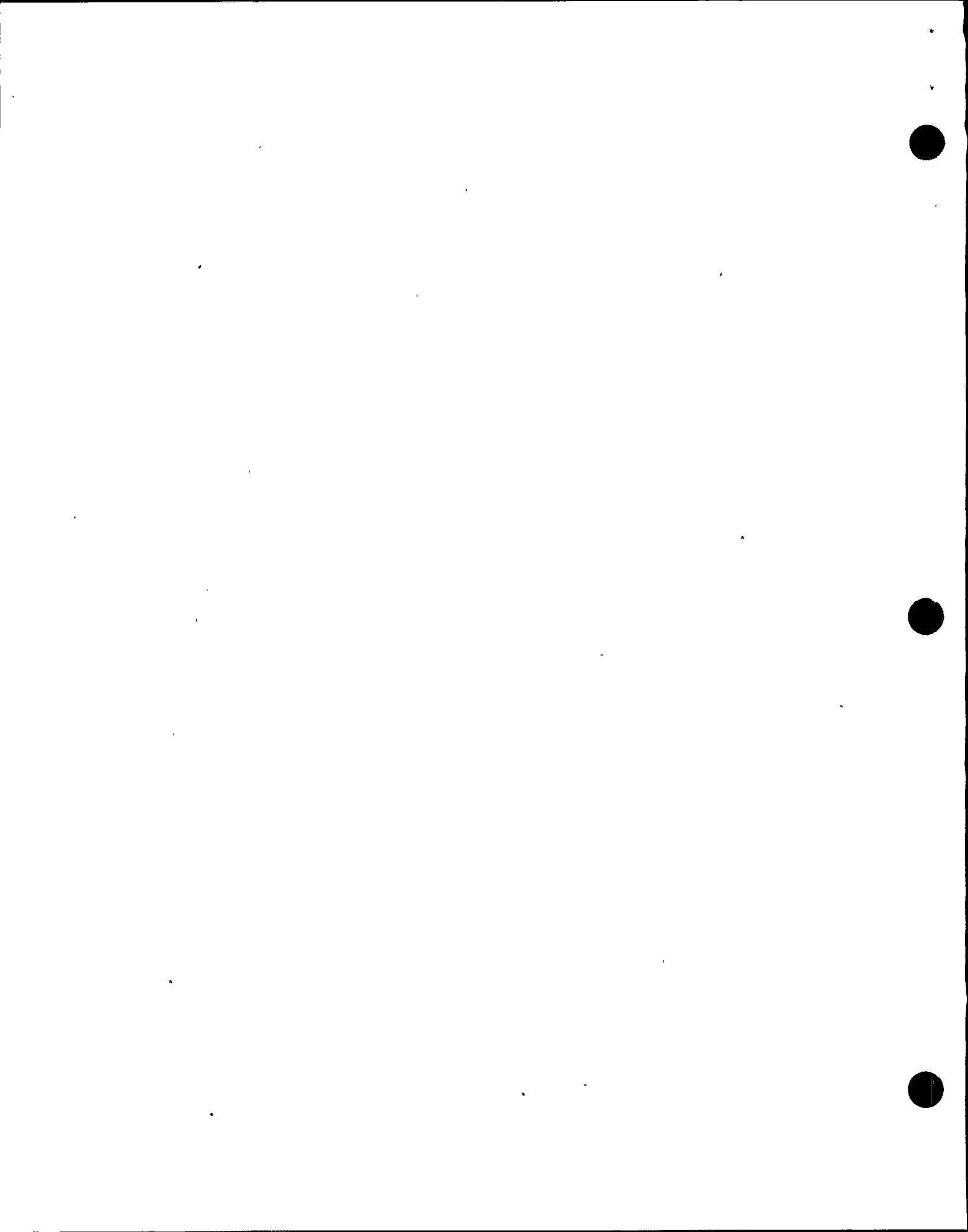
2CCP-PIC is out of service for electrical PM

Crew takes the shift and continues with plant startup.

Crew

Continue pulling rods for criticality.

Required Manipulations A.01, A.03.



INSTRUCTOR INFORMATION/
INSTRUCTOR ACTIVITY

EXPECTED STUDENT RESPONSE

C/L

COMMENTS

Enter Malfunction,

1, NM07A

IRM A stays downscale

CSO/E

Recognize IRM "A" failure.

Required Manipulation B.05.

ASSS/SSS

Direct actions for IRM failure consult T/S.

SOER 88-05 Training recommendation #3.

After IRM 'A' actions are complete,

Enter Malfunction,

2, PC18A

Div. I Group 8/9 isolation

CSO/E

1. Recognize and determine cause of loss of CCP to Recirc. Pumps and drywell cooling.
2. Review annunciator response/procedures for immediate actions.

Required Manipulation B.03.

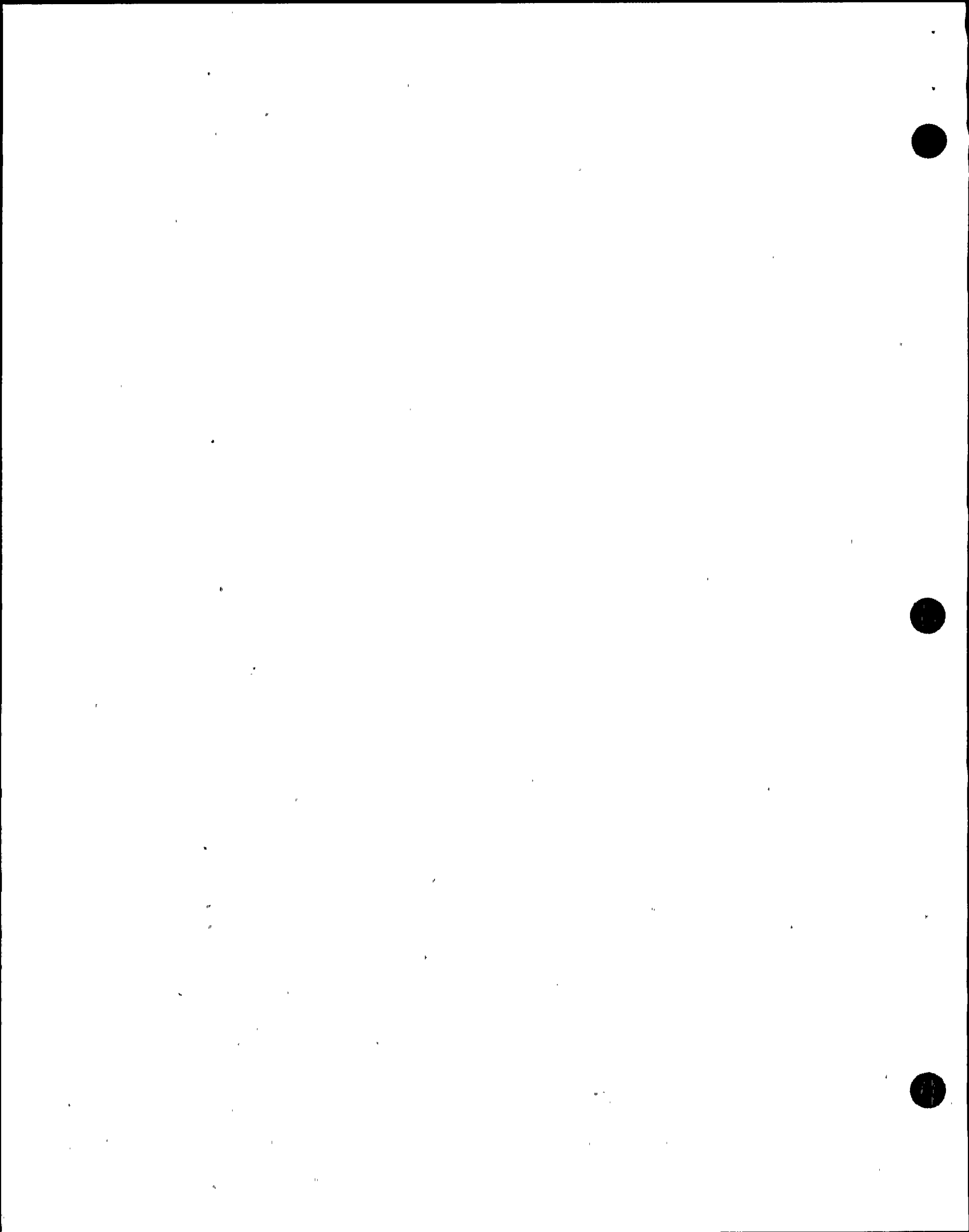
If contacted by radio that operator at back panel is checking for trip units, No trip units are tripped but there is one white light on it is "Isolation Logic Test,"

If called as I&C, trouble shooting will be started to determine cause of isolation.

(See drawing 807E152TY Sh.7 - Fuse F28A is blown or lead is off by fuse block.)

ASSS/SSS

1. Determine from indications this is an inadvertent isolation.



Allow crew to establish heat up rate then stick the next rod in the pull sequence.

Enter Malfunction

3,RD07XXYY (next rod to be pulled)

Rod will not drive in or out.

2. If necessary, direct restoration of Drywell Cooling (N2-OP-60).
3. Directs monitoring of recirc pump temperatures.

CSO/E

1. Recognize stuck rod and inform SSS.
2. Carry out actions per N2-OP-30.

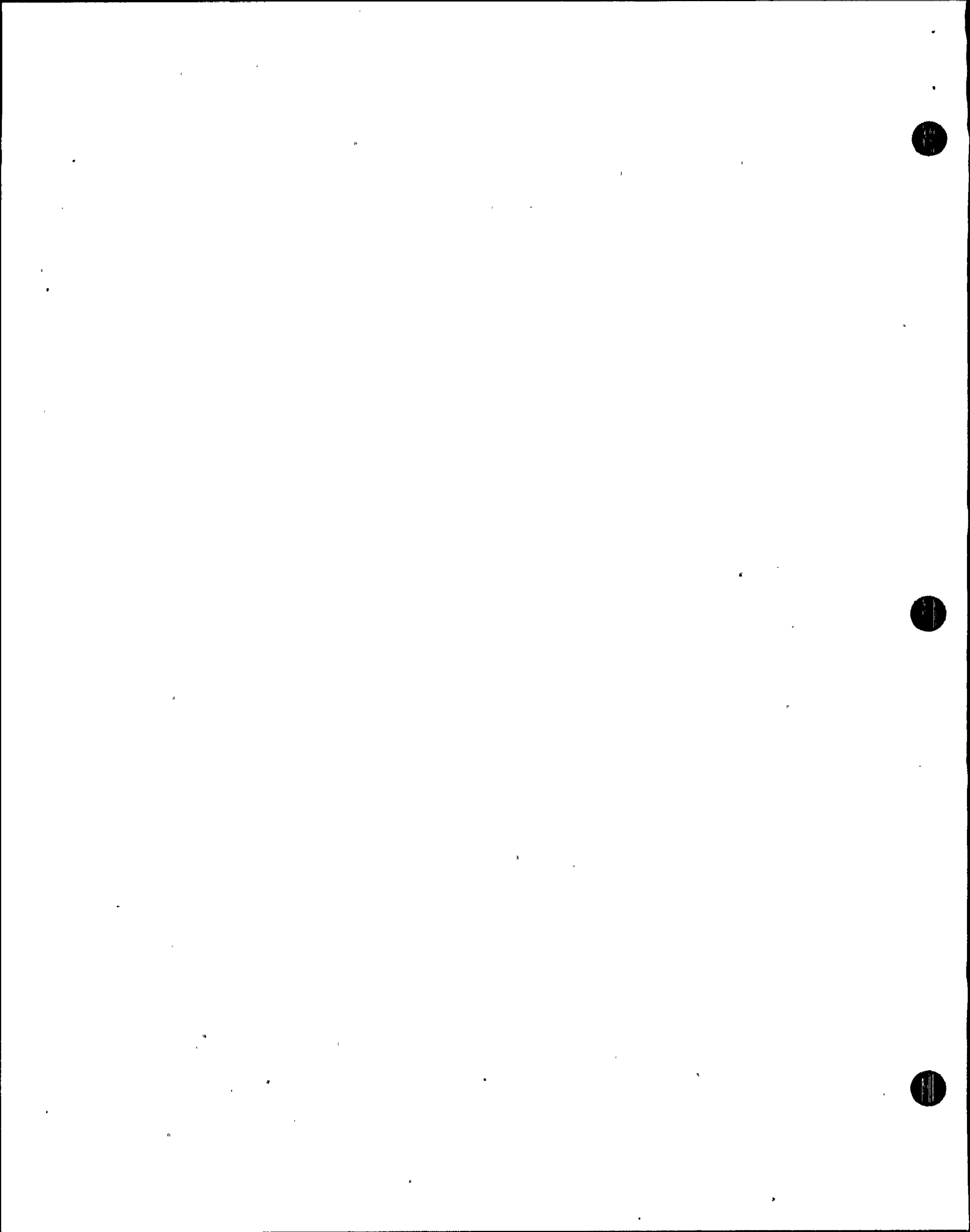
ASSS/SSS

1. Direct operator actions per N2-OP-30 for stuck control rod.
2. Consult T/S for appropriate actions.

Required Manipulation B.06.

Place simulator in freeze.

Discuss with crew T/S required actions for stuck rod and what would be done including verifying shutdown margin.



INSTRUCTOR INFORMATION/
INSTRUCTOR ACTIVITY

EXPECTED STUDENT RESPONSE

C/L

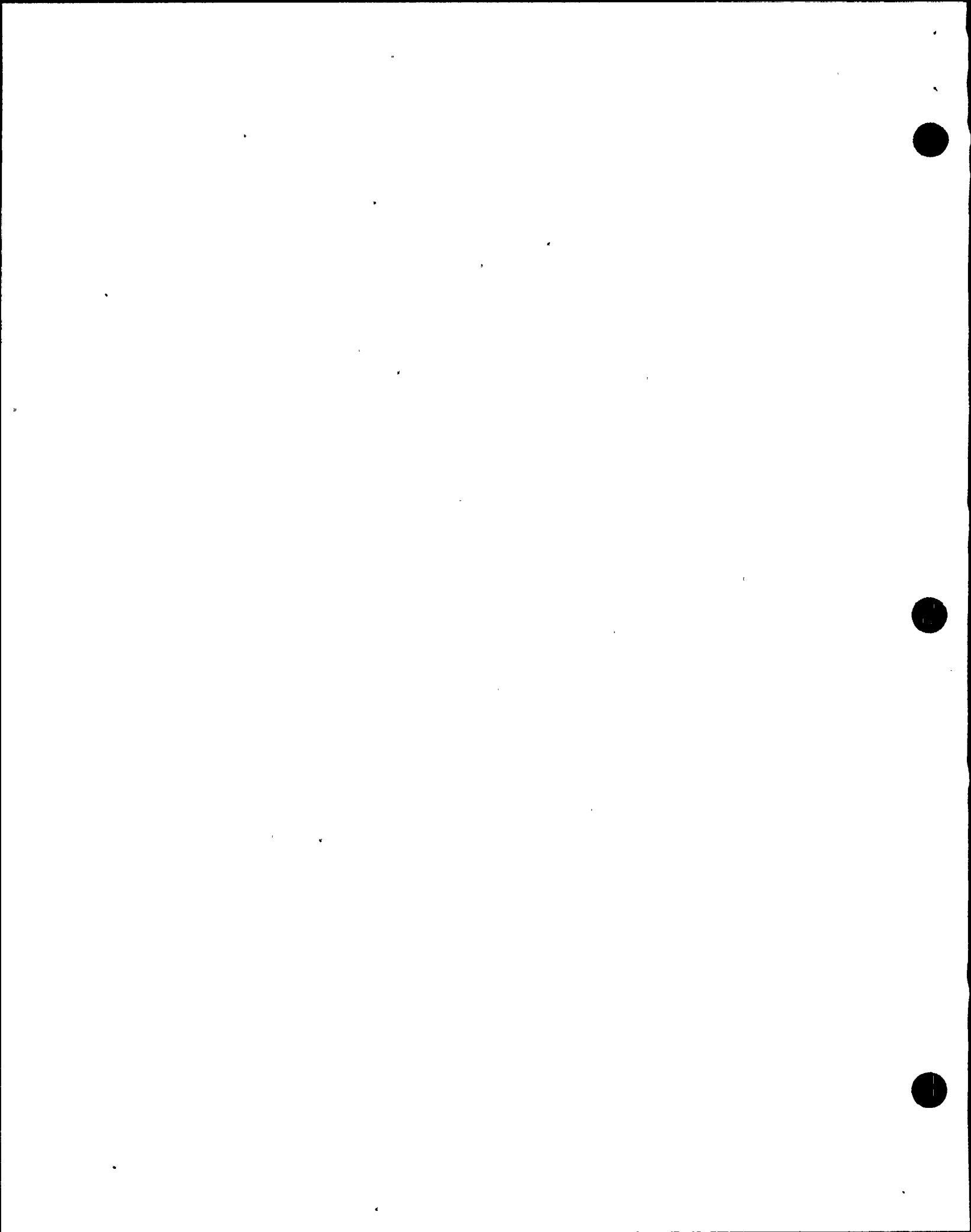
COMMENTS

Setup Instructions

Initialize to IC-25

Markup out of service 2CCP-PIC

Note: Review N2-OP-30 Section H.3.0 (simulator operator to provide realistic time delays up to isolating this rod).



Turnover Information

Give the following information for initial conditions:

Core Life: BOL

Rod Sequence Information:

RSCS: Group #78

Last rod pulled 34-11 42-11 Next Rod 18-27 pull from 04 to 06

RWM: Group #18 Step 21
page 34 of the Startup Control Rod Sequence (A2UP)

Plant Conditions:

Reactor power: Reactor startup is in progress (plant is hot) in accordance with N2-OP-101A.

Tech. Spec. limitations in effect:

None

Significant problems/abnormalities:

None

Evolutions/maintenance for the on-coming shift:

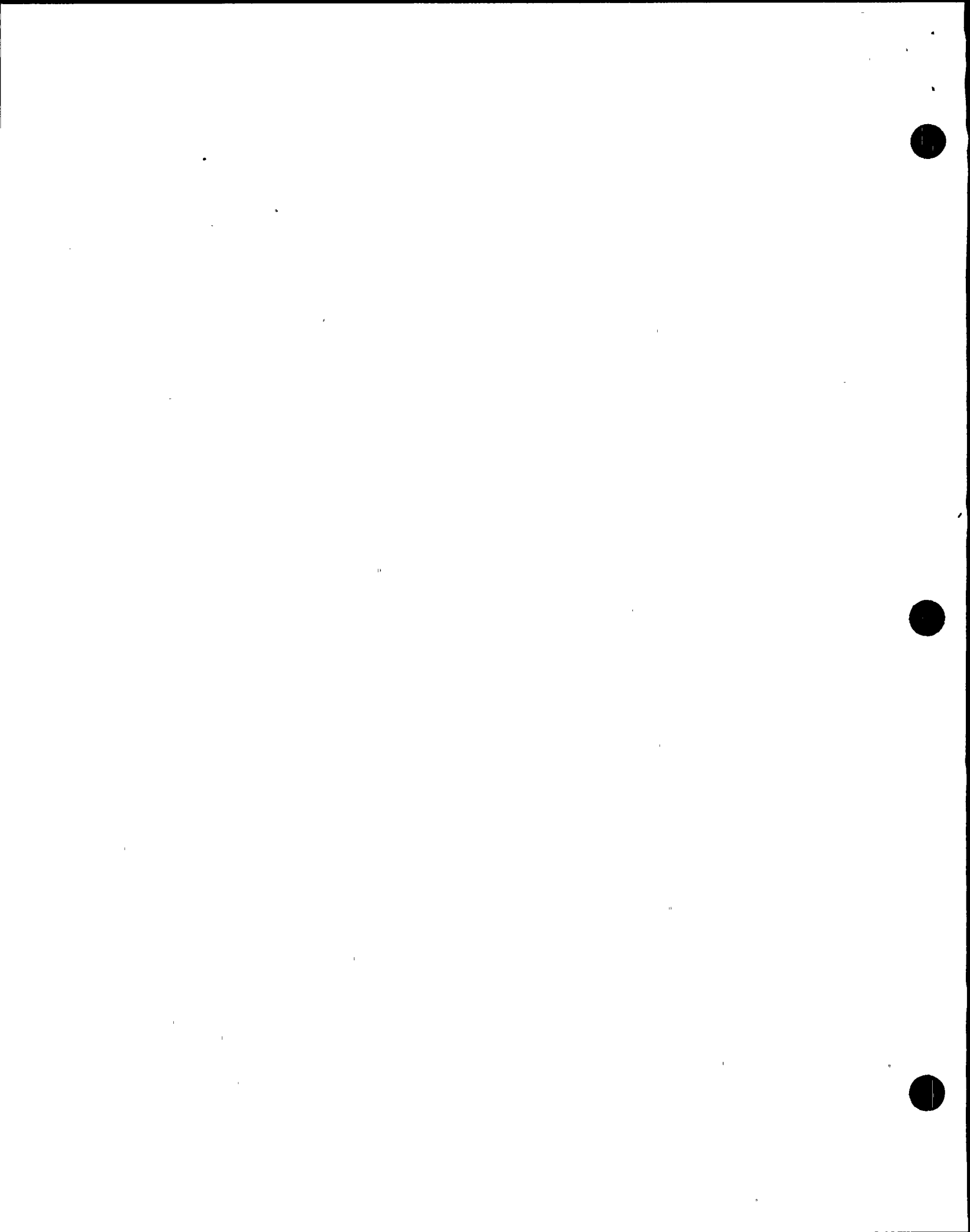
2CCP-PIC is out of service to repair the motor to pump coupling which is the suspected cause of pump vibration being high.

Crew takes the shift and continues with plant startup.

Crew

Continue pulling rods for criticality.

Required Manipulations A.01, A.03.



As soon as operator pulls the first rod.

Enter Malfunction,

1, RD063411⁴²

CSO/E

1. Recognize and report accumulator trouble.
2. Direct an NLO to assist in determining cause of accumulator trouble.

When sent as NLO to check local (at HCU) indications for control rod, wait 1 minute and then report to the CSO that Rod ⁴²34-11 accumulator pressure is 1040 psig.

ASSS/SSS

Direct actions for accumulator trouble in accordance with N2-OP-30.

CSO/E

Direct NLO to check accumulator for water leakage.

After reasonable time, clear Malfunction #1, RD063411⁴² and report as NLO to the CSO that water did drain from the instrument block.

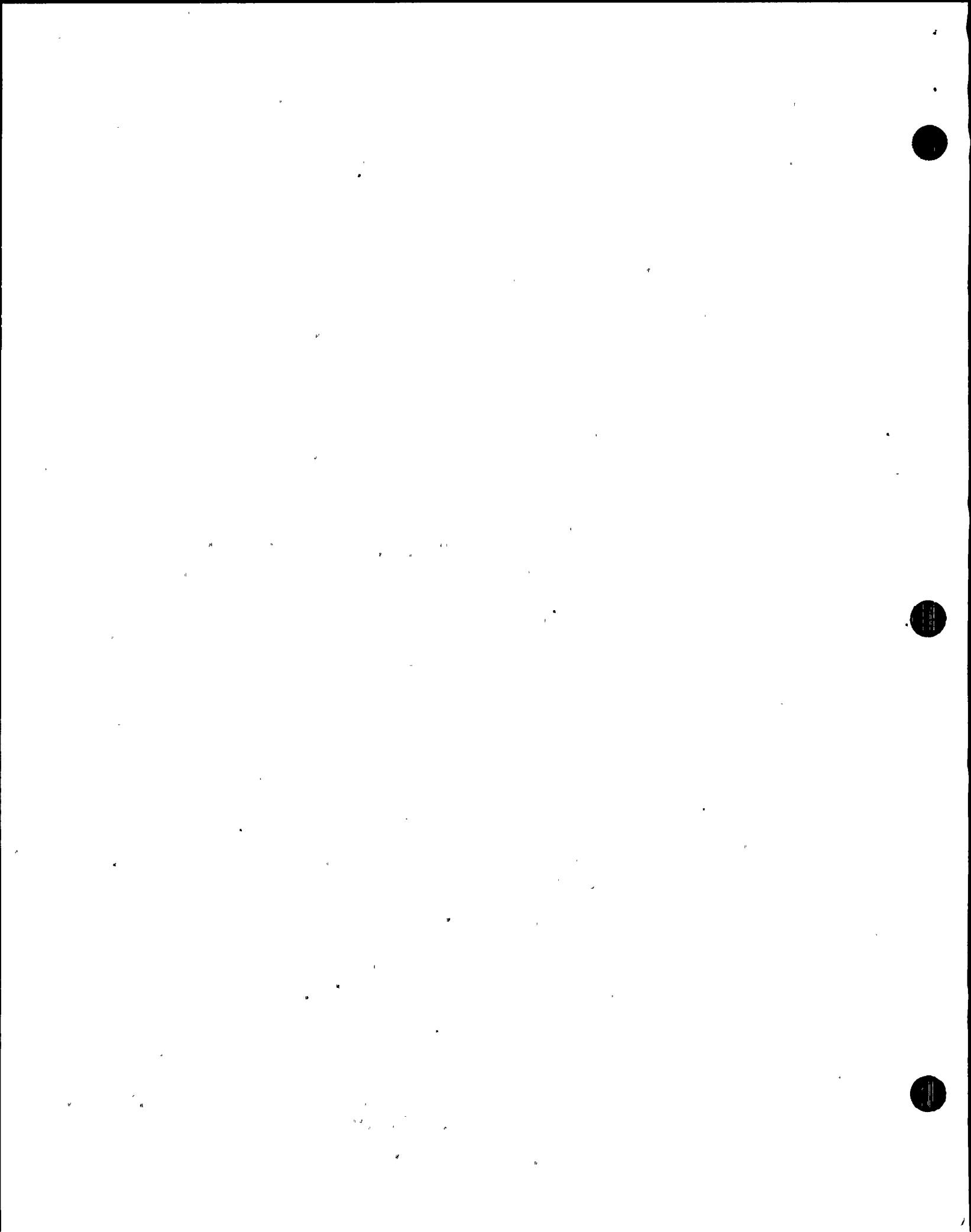
After reporting water drained and removing malfunction.

CSO/E

1. Recognize accumulator trouble on same rod.

Re-enter Malfunction,

1, RD063411⁴²



INSTRUCTOR INFORMATION/
INSTRUCTOR ACTIVITY

EXPECTED STUDENT RESPONSE

C/L

COMMENTS

Note: To convince the crew to carry out steps for piston seal leakage the above sequence of removing and re-entering malfunction may have to be repeated.

When directed to carry out procedure Section H.4.0 for piston seal leakage:

Enter Malfunction,
2, RD07⁴²411

Rod stuck - HCU is isolated to perform this section. This evolution involves draining and filling the water accumulator for this HCU 3 times and routing such to floor drains. Do not report that this evolution is completed.

~~Instructor Note: Ensure pulling rods for criticality/heatup is in progress in order to meet all persons manipulations.~~
Allow crew to achieve criticality and establish plant heatup.

Enter Malfunction,
3, ED04B

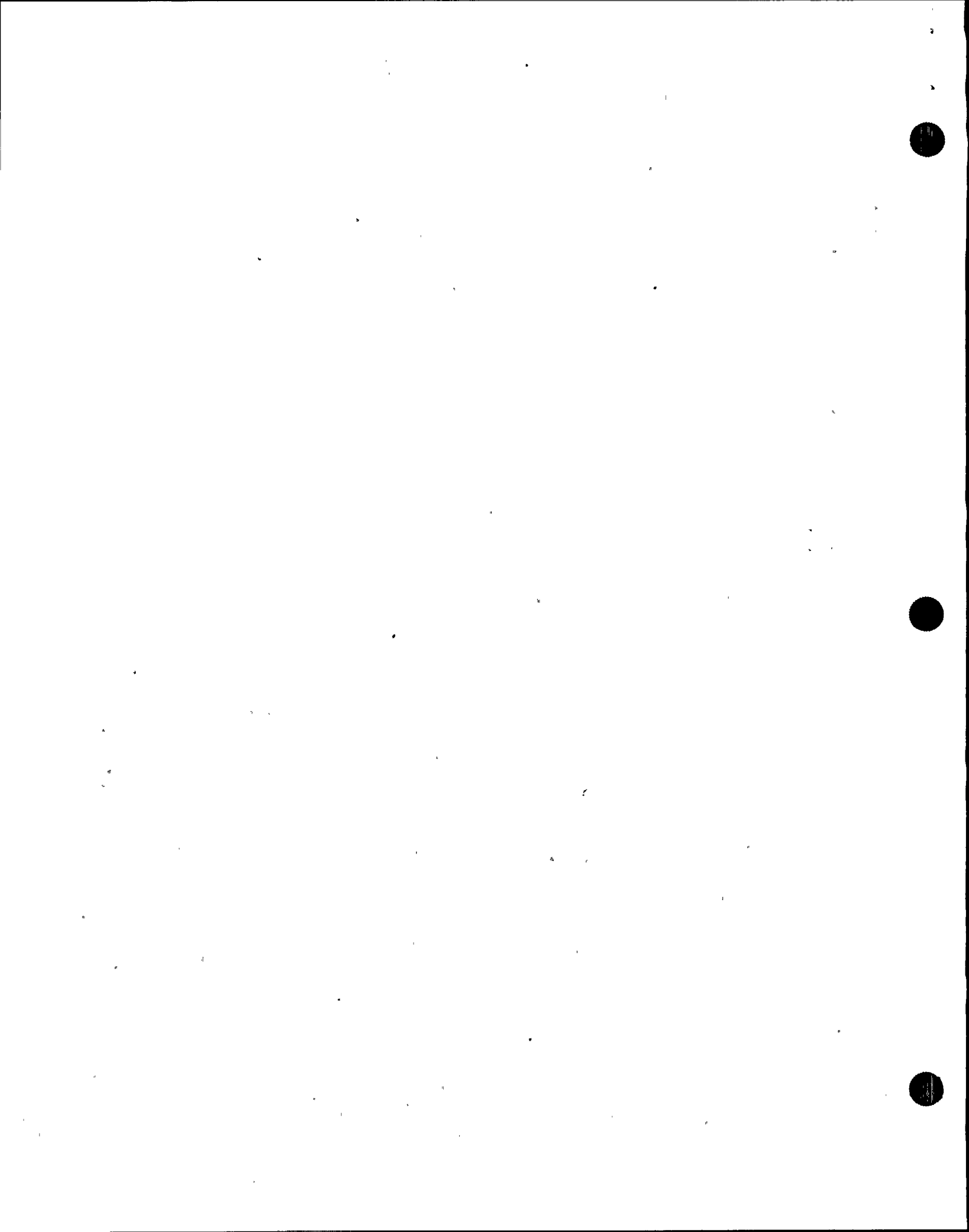
Electrical fault on 2NNS-SWG12

ASSS/SSS

Direct operators to carry-out N2-OP-30 section for accumulator piston seal leakage.

CSO/E

1. Recognize fault/loss of power of SWG12.
2. Identify loads lost.



Allow crew to achieve criticality and establish
plant-heatup:

Enter Malfunction,
4,CW02B
Trip of 2CCP-P1B

ASSS/SSS

1. Direct operator actions.
2. Review loads lost.
3. Identify that only 1 CCP pump is available.

CSO/E

1. Recognize loss of only CCP pump.
2. Carry out actions of annunciator response and N2-OP-13.

Required Manipulation B.03.

ASSS/SSS

1. Direct operators actions per procedure.
2. When it is determined that no main CCP pump can be started direct operators to scram the reactor.



CSO/E

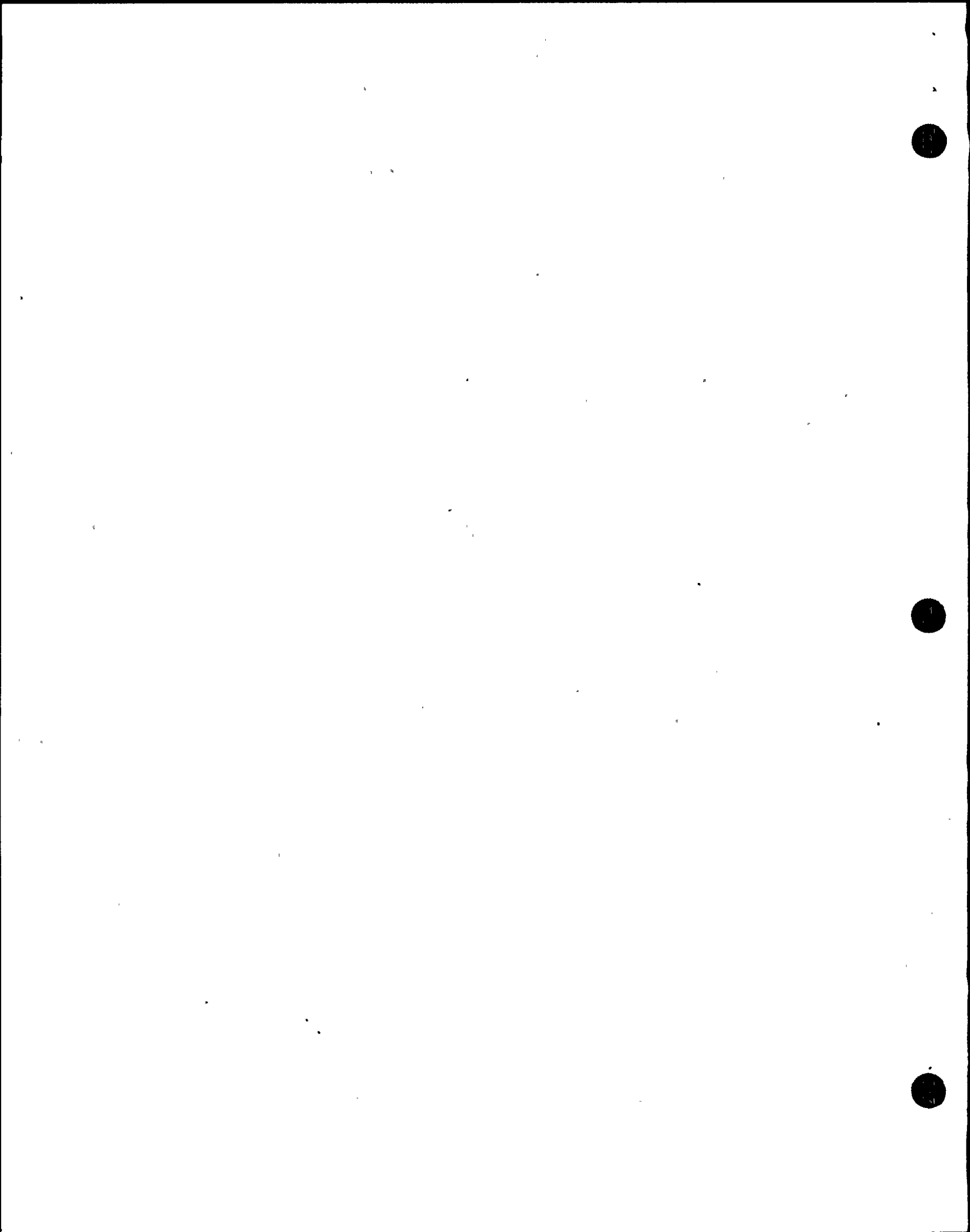
1. Carry out immediate actions for reactor scram.
2. Report plant parameters.
3. Identify one rod stuck out at position 08.

Required Manipulation B.13.

ASSS/SSS

1. Enter EOP-RPV control (if above 4% power).
 - a. Determine reactor will remain shutdown without boron and enter OP-101C, Section H.1.
 - b. Stabilize RPV pressure <1037 psig.
 - c. Maintain RPV level 159.3 to 202.3.

Place the simulator in freeze when ASSS/SSS have stabilized the plant (as described above and to the right).



INSTRUCTOR INFORMATION/
INSTRUCTOR ACTIVITY

EXPECTED STUDENT RESPONSE

C/L

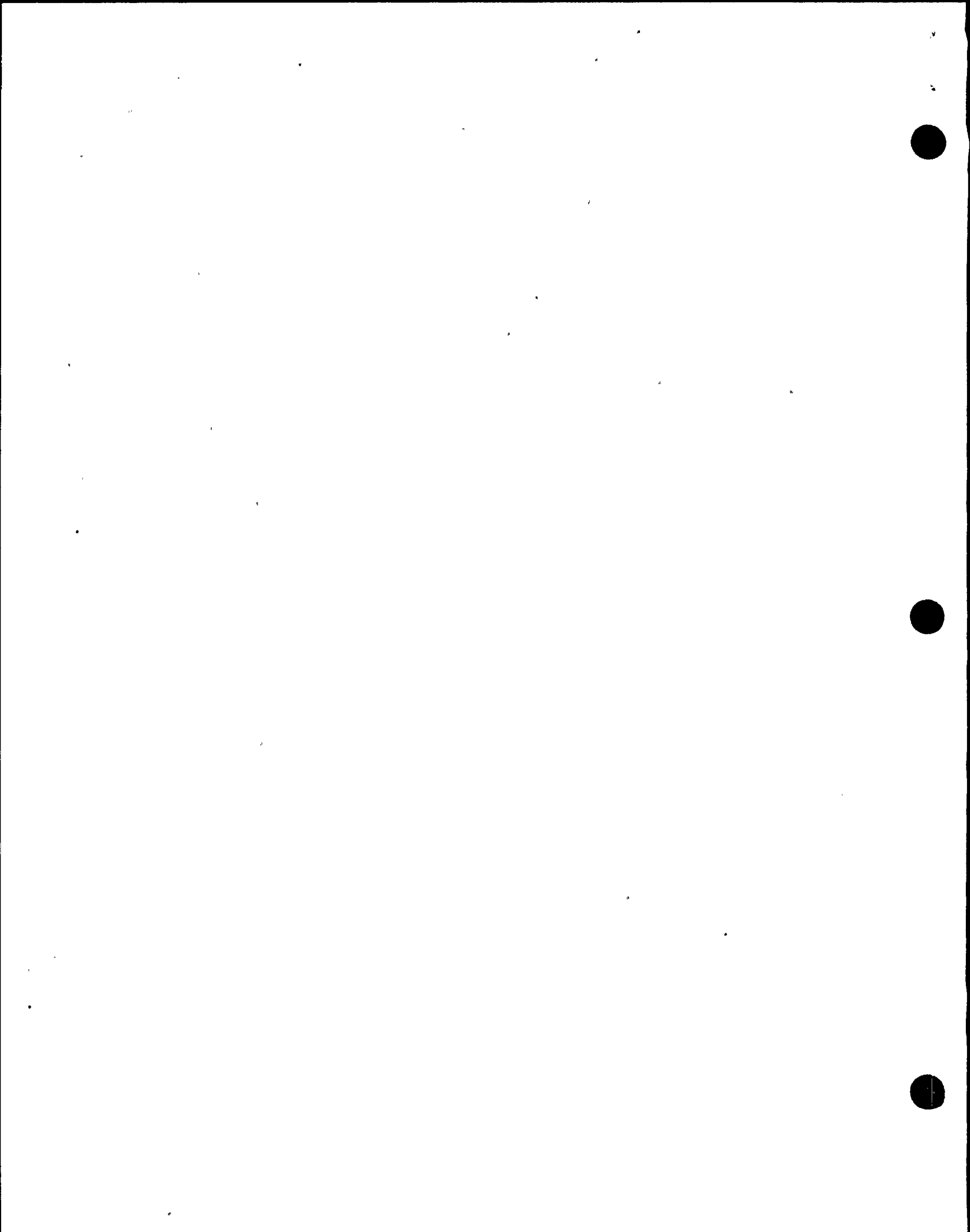
COMMENTS

Ask crew why the one rod is not full in. (Due to being isolated) Open P&ID30B and discuss the effects on the ability to scram a control rod which is hydraulically isolated.

Discuss any other areas of concern or any questions asked of individuals.

Give the crew a short break.

This discussion included per TCO-02-REQ-91-012.



Setup Instructions:

Initialize to IC-25

Turnover Information

Give the following information for initial conditions:

Core Life: BOL

Rod Sequence Information:

RSCS: Group #7 8

4234-11 Last Rod Pulled Next Rod 15-27 pull from 04 to 06

RWM: ~~Group #18~~ Step #24

Plant Conditions: *Page 34 of the Startup Control Rod Sequence (A2 uP)*

Reactor Power: Reactor startup is in progress in accordance with N2-OP-101A.

Tech. Spec. limitations in effect:

None

Significant problems/abnormalities:

None

Evolutions/maintenance for the on-coming shift:

No surveillances or major maintenance scheduled, plant heatup is of top priority.

Crew takes the shift and continues with plant startup.

Crew

Continue pulling rods for criticality.

Required Manipulations, A.01, A.03.



INSTRUCTOR INFORMATION/
INSTRUCTOR ACTIVITY

EXPECTED STUDENT RESPONSE

C/L

COMMENTS

After heatup rate is established, perform the following malfunctions and evolutions if time allows.

Enter Malfunction,

1, ED11A

Loss of 24VDC Dist. Panel 300A

CSO/E

1. Recognize loss of panel.
2. Identify loads lost
(EE-10K or load list).
3. Identify RPS half scram.

ASSS/SSS

1. Directs actions to
restore 24VDC P300A.
2. Consults T/S for the
lost SRM's and IRM's.

After crew has taken actions for half scram.

Allow crew time to continue with the plant
heatup/startup.

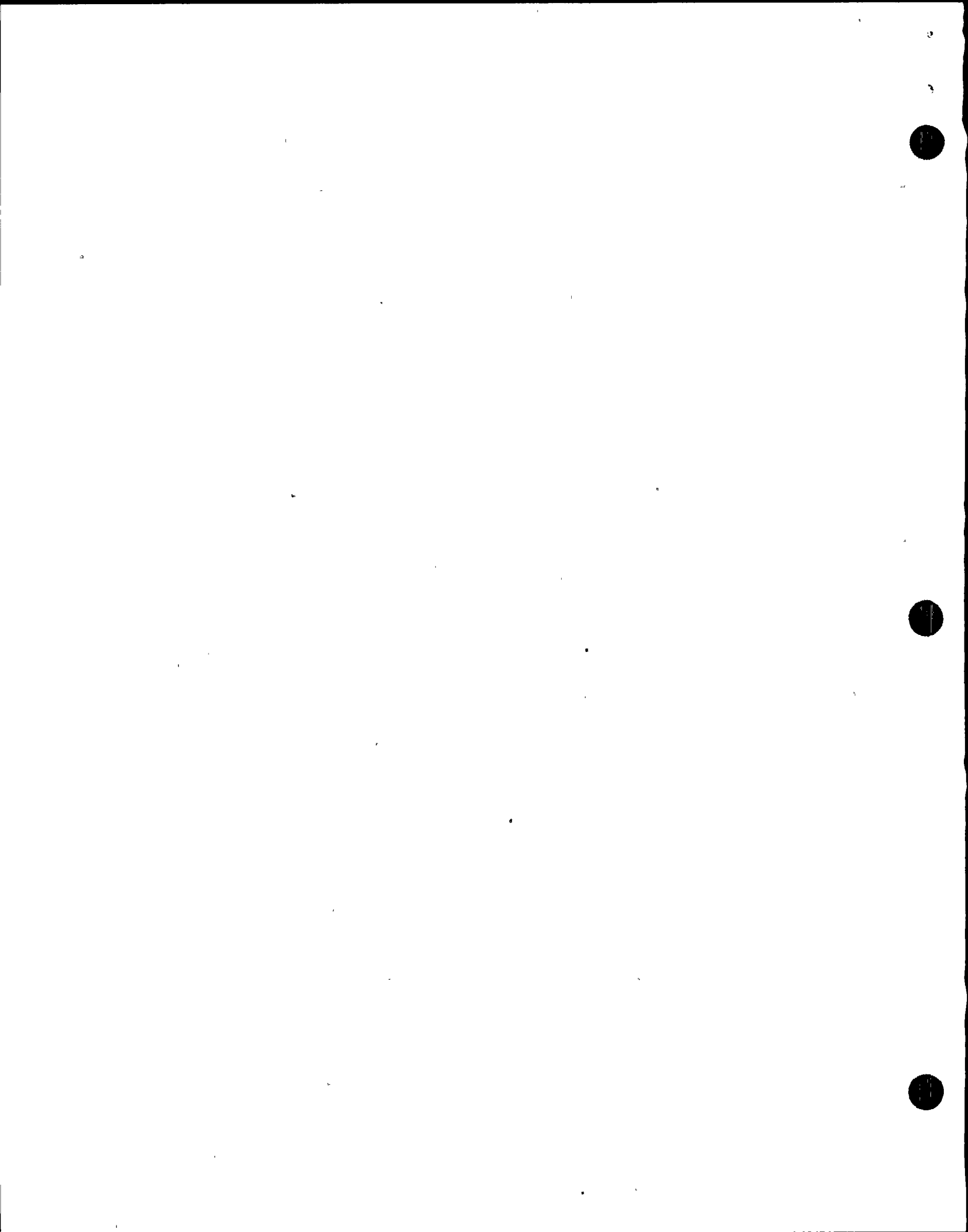
Ensure crew has time to warm the main turbine.

Crew

Continue with H/U and S/U.
Commence warming the main
turbine.

Required Manipulation B.05.
(TCO-R2-90-148
"Develop Simulator
Scenarios for plant
impact on loss of
power boards".)

TCO-R2-90-121
("Incorporate
activities at low
power to familiarize
operators with core
response.")



INSTRUCTOR INFORMATION/
INSTRUCTOR ACTIVITY

EXPECTED STUDENT RESPONSE

C/L

COMMENTS

Ensure crew shift LV137 to auto.

Enter Malfunction 2,FW04

LV-137 fails open.

Crew

1. Recognize RPV level increase.
2. Take actions to control RPV Level.

Required Manipulation B.11.

After crew regains control of RPV level and they are progressing in the startup.

Enter Malfunction,
5,TC08

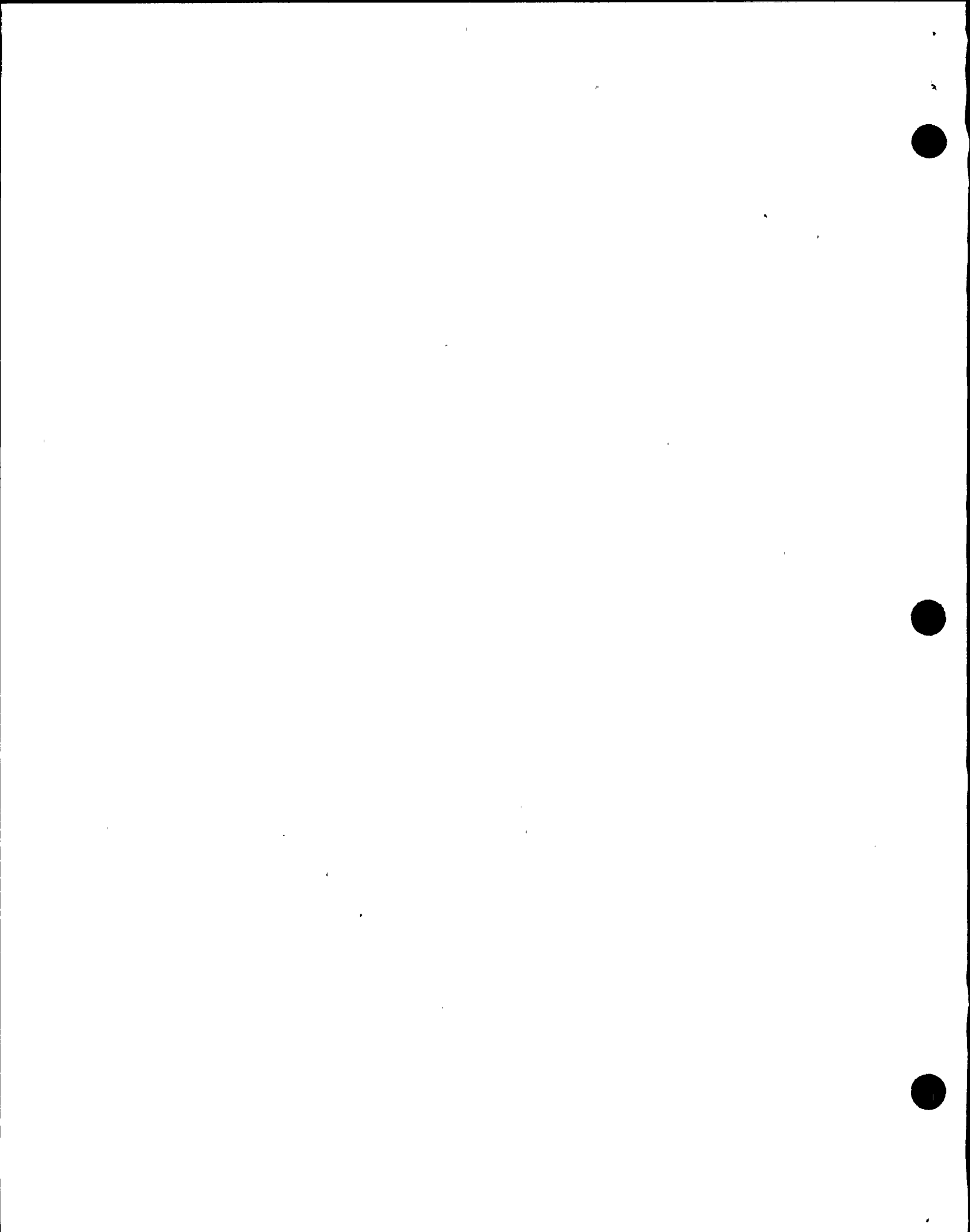
Number 1 Turbine Bypass Valve fails closed.

Instructor may re-perform any portion of the scenario if time allows.

After actions are complete place the simulator in freeze and conduct an assessment.

Crew

Recognize pressure/power increasing.
Verify remaining bypass valves control pressure.
Recognize that No. 1 Turbine Bypass Valve failed closed.



K. POST EXERCISE ASSESSMENT

1. The instructors will review the Learning Objectives and the Lesson Learned with the crew.

The Lessons Learned be reviewed even if the crew did not commit the error(s).

2. The crew will perform a self assessment.

Have the crew assess their performance in relation to the Lessons Learned and the Learning Objectives for this exercise.

The individual who was the SSS during the scenario should lead the assessment.

3. Instructors Assessment

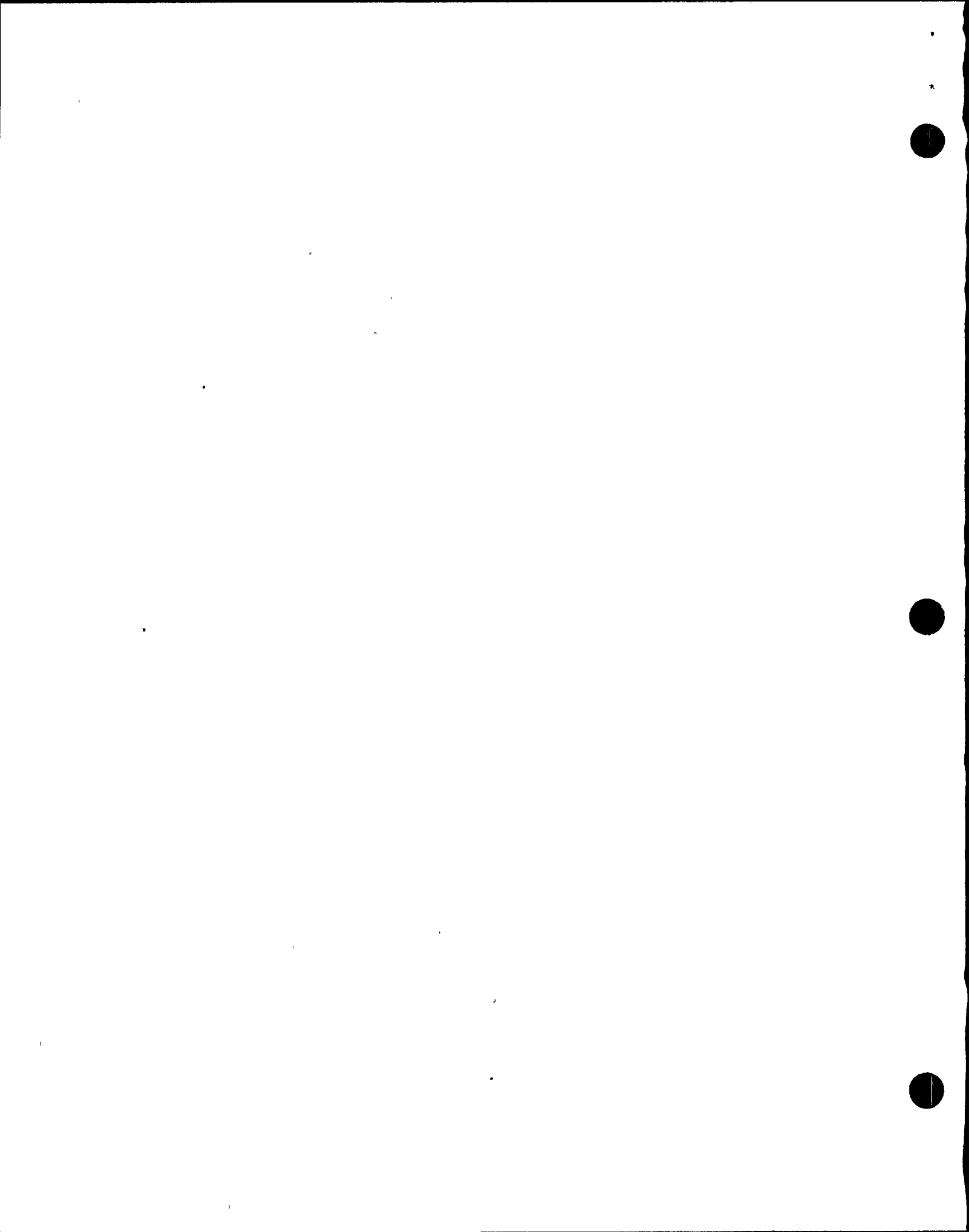
The instructors will provide an assessment of the crew's performance (as necessary) during the execution of the crew's self-assessment. The bases of this assessment shall be the Scenario Checklist, Team Work Rating Scale and the topics covered in the Lesson Plan. The comments from the Scenario Checklist should be detailed and focused on individual performance. The comments from the Team Work Rating Scale should be global and should be focused on the team as a whole.

The instructor assessment should highlight the following areas:

- a. Control Room formality
- b. Actions taken and differences from expected actions.
- c. Procedural use and compliance.
- d. Attentiveness to control panels and indications.
- e. Teamwork and communications.
- f. Meeting the Learning Objectives.
- g. Log Keeping
- h. Understanding plant/system response.
- i. Diagnosis of events/conditions.
- j. Recognize progress and good performance.
- k. Compliance/use of Technical Specifications.
- l. Supervisory control.
- m. Emergency plan implementation.
- n. Notifications and administrative requirements.
- o. Self verification techniques.
- p. Conservative approach to reactor safety.
- q. Realism

Summarize any performance weaknesses or trainees misconceptions and provide guidance or training to correct these weaknesses. Any questions asked during the scenario should be reviewed with the entire crew.

Summarize the general lessons learned, individual performance and crew (team) performance. Be sure to point out and develop strong points if the crew failed to do this during their assessment.



4. Questions raised during the assessments, or at any time during the training session, that cannot be immediately answered shall be researched and answered before the end of the day, if possible. If the answer is found after the training cycle is completed, bring the question and the answer to the program coordinator for disposition.
5. Questions concerning interpretations of procedural steps, technical specifications or station policy will be answered by calling the responsible station management person and relaying the answer to the class. For further clarification, it may be necessary to complete the appropriate plant/simulator documentation.

